TEZ NO	AD	SOYAD	MEZUNİYET YILI	TEZ DANIŞMANI
1	Cüneyt	Gemicioğlu	1984	Yusuf. P Tan
2	M. Fatih	Çolgar	1985	Avni Morgül
3	Ari	Kireçyan	1985	Yorgo İstefanopulos
4	Mustafa	Karamanoğlu	1985	Yusuf. P Tan
5	Korhan	Eryolalan,	1985	Necmi Tanyolaç
6	Gülsüm	Erdim	1985	Neil Miller
7	Selim	Dentes	1985	Neil Miller
8	Derya	Göbelek,	1985	Necmi Tanyolaç
9	Hakan	Zeytinoğlu	1985	Necmi Tanyolaç
10	Zeynep	Erim	1986	Bülent Sankur
11	M. Orhan	İkiz	1986	Selim Şeker
12	Melih	Aybey	1986	Albert Güveniş
13	Mustafa	Bodur	1986	Yekta Ülgen
14	Vahit	Kongur	1986	Albert Güveniş
15	B. Haluk Sayman	Sayman	1986	Necmi Tanyolaç
16	F. Can	Koçak	1987	Yusuf. P Tan
17	O. Uğur	Sezerman	1987	Necmi Tanyolaç
18	Tanju	Öngür	1987	Yekta Ülgen
19	Mutlu	Hüner	1987	Albert Güveniş
20	Sibel	Yılankıran	1987	Ömer Cerit
21	N. Serdar	Uçkun	1987	Yorgo İstefanopulos
22	Ahmet	Ulubilgen	1987	Ömer Cerit
23	Mehmet	Kılavuz	1987	Yekta Ülgen
24	Aykut	Sümer	1988	Albert Güveniş
25	Mustafa	Sakallı	1988	Necmi Tanyolaç/Yekta Ülgen
26	Emre Yusuf	Erdi	1988	Yekta Ülgen
27	Leyla	Şensoy (Kaya)	1989	Ömer Cerit
28	Turgut	Turoğlu	1989	Albert Güveniş
29	Alev	Erdi (Kutan)	1989	Halil Özcan Gülçür
30	Dilek	Bishku (Aykul)	1989	Halil Özcan Gülçür
31	Mehmet	Göral	1989	Halil Özcan Gülçür
32	Yurtkan	Yurt	1989	Necmi Tanyolaç
33	Nilgün S.	Polat	1990	Necmi Tanyolaç

34	Bülent D.	Surijon.	1990	Yekta Ülgen
35	Aylin	Erçil	1990	Yorgo İstefanopulos
36	Cemil	Örgev	1990	Necmi Tanyolaç
37	Ahmet	Ademoğlu	1990	Halil Özcan Gülçür
38	Talat A.	Pekelman	1990	Necmi Tanyolaç
39	Cem İ.	Koçak	1990	Yekta Ülgen
40	Yıldırım	Bahadırlar	1990	Halil Özcan Gülçür
41	Orhan Murat	Köseoğlu	1990	Yekta Ülgen
42	E. Mehmet	Yusuf	1990	Sabih Tansal
43	Hakan	Zorlu	1990	Halil Özcan Gülçür
44	Faik Nüzhet	Oktar	1990	Necmi Tanyolaç
45	Acarhan	Yiğit	1990	Hikmet Üçışık
46	Murat A.	Karaçorlu	1990	Yusuf. P Tan
47	Nora	Cümbüşyan	1991	Necmi Tanyolaç
48	Burak Reis	Arslan	1991	Yekta Ülgen
49	Gülay	Büyükaksoy	1991	Halil Özcan Gülçür
50	Tamer	Demiralp	1991	Halil Özcan Gülçür
51	Değer	Solakoğlu	1991	Yekta Ülgen
52	N. Murat	Yalçın	1991	Yusuf. P Tan
53	Teksel	Öztürk	1991	Halil Özcan Gülçür
54	Şehsuvar	Şişmanoğlu	1991	Necmi Tanyolaç
55	Mustafa	Altunbaş	1991	Sabri Altuntaş
56	Mehmet V.	Tazebay	1991	Ertuğrul Yazgan
57	E. Çağatay	Güler	1992	Yasamin Kahya
58	Masoud	Madani	1992	Halil Özcan Gülçür
59	Lale	Özer	1992	Yekta Ülgen
60	Ümit	Gökşen	1992	Necmi Tanyolaç
61	Mustafa	Dost	1992	Yekta Ülgen
62	Adnan	Güler	1992	Yekta Ülgen
63	Günnur	Çakmak	1992	Yekta Ülgen
64	Murat	Gönen	1992	Yekta Ülgen
65	Coşkun	Aydoğdu	1992	Halil Özcan Gülçür
66	S. Murat	Egi	1992	Yusuf. P Tan
67	Meltem	Demirtürk	1993	Yekta Ülgen

68	Zeina	Babetty	1993	Hikmet Üçışık
69	Erhan	Baş	1993	Hikmet Üçışık
70	Levent A.	Atan	1993	Yekta Ülgen
71	Yavuz	Serovaoğulları	1993	Yekta Ülgen
72	Daron	Ermen	1993	Yekta Ülgen
73	Osman	El-Maarri	1993	Hikmet Üçışık
74	Cem Cüneyt	Kavaslar	1994	Yekta Ülgen
75	Cengiz	Çelikyurt	1994	Halil Özcan Gülçür
76	Gökhan Mert	Koral	1994	Mehmet Melek
77	Murat	Taşkıran	1994	Halil Özcan Gülçür
78	Mine İzlem	Doksatlı	1994	Halil Özcan Gülçür
79	Fırat	Yeşilleten	1995	Yekta Ülgen
80	Fırat	Matur	1995	Yekta Ülgen
81	Fatih	Karaaslan	1995	Halil Özcan Gülçür
82	Nevcihan	Avarisli	1995	Yekta Ülgen
83	Fulya	Gümüşburun	1995	Hikmet Üçışık
84	Banu	Baykara	1995	Yekta Ülgen
85	Işıl Soysal	Soysal	1995	Yekta Ülgen
86	İsmail	Taşkın	1995	Halil Özcan Gülçür
87	Levent Hekimoğlu	Hekimoğlu	1995	Halil Özcan Gülçür
88	Ufuk	Sovuksu	1995	Yekta Ülgen
89	Şule	Gündüz	1995	Yekta Ülgen
90	Çağatay	Soyer	1995	Işıl Bozma/Yorgo İstefanopulos
91	Senih	Gürses	1995	Halil Özcan Gülçür
92	M. Emin	Aksoy	1996	Hikmet Üçışık
93	H. Kerim	Oal	1996	Yekta Ülgen
94	S. Semahat	Demir	1996	Yusuf. P Tan
95	Altuğ	Ergin	1996	Halil Özcan Gülçür
96	Cemil Arsun	Kutur	1996	Hikmet Üçışık
97	T. Ufuk	Eren	1996	Hikmet Üçışık
98	Parivash	Hamvatan	1996	Hikmet Üçışık
99	Ahmet Feyz	Pirimoğlu	1996	Hikmet Üçışık
100	Murat	Fırat	1996	Halil Özcan Gülçür
101	İpek	Torun	1996	Yekta Ülgen

102	Orhan	Sancaklı	1996	Hikmet Üçışık
103	Dilek	Ekşi	1997	Mehmet Melek
104	Fatih	İşbakan	1997	Yekta Ülgen
105	Ali İhsan	Yürekli	1997	Mehmed Özkan
106	Aylin	Şendemir	1997	Sabri Altuntaş
107	Ersin	Taşkın	1997	Halil Özcan Gülçür
108	Özkan M.	Serin	1997	Albert Güveniş
109	Alper	Gadiş	1997	Halil Özcan Gülçür
110	Kamal	Atwat	1998	Hikmet Üçışık
111	Hüseyin Nafiz	Şengül	1998	Halil Özcan Gülçür
112	Yusuf Kenan	Yılmaz	1998	Halil Özcan Gülçür/Tamer Demiral
113	Metin	Vural	1998	Halil Özcan Gülçür
114	Ufuk	Öztoprak	1998	Mehmed Özkan/Ahmet Ademoğlu
115	Mehmet Eylem	Kırlangıç	1998	Aykut Sümer/Yağmur Denizhan
116	Efe	Onganer	1998	Hikmet Üçışık
117	Sedat	Kesmen	1998	Hikmet Üçışık
118	Aslı	Tuğluoğlu	1998	Hikmet Üçışık
119	Mana	Sezdi	1998	Yekta Ülgen
120	Burçin	Kaynak	1999	Mehmed Özkan/Yekta Ülgen
121	Mehmet Tolga	Taner	1999	Albert Güveniş
122	Melsen	Tunca	1999	Hale Saybaşılı
123	Evren	Burşuk	1999	Mehmed Özkan
124	Ayşe	Aslan	1999	Hikmet Üçışık/M.Alp Göksan
125	Salih	Bilgin	1999	Mehmed Özkan
126	Bahaa Bou	Khazam	1999	Mehmed Özkan/İnci Çilesiz
127	Erdem	Yavuz	2000	Yekta Ülgen
128	Mehmet	Şayan	2000	Mehmed Özkan
129	Barış	Bozkurt	2000	Mehmed Özkan
130	Mustafa	Mihmanlı	2000	Halil Özcan Gülçür
131	Elif	Balcı	2000	Ahmet Ademoğlu
132	Berke	Öncü	2000	Yekta Ülgen
133	Muhammed Oğuzhan	Külekci	2000	Mehmed Özkan
134	Bora	Büyüksaraç	2000	Mehmed Özkan
135	İmran	Göker	2000	Mehmed Özkan

136	Tuna	Aydın	2000	Yekta Ülgen
137	Nuri	Açıkgöz	2000	Halil Özcan Gülçür
138	Ahmet	Usta	2000	Mehmed Özkan
139	Asım	Samlı	2000	Ahmet Ademoğlu
140	Güneş	Yavuz	2000	Ahmet Ademoğlu/Tamer Demiralp
141	Abdullatif	Ersoy	2001	Halil Özcan Gülçür
142	Gökhan	Ertaş	2001	Halil Özcan Gülçür
143	Hazan ,	Havlucu	2001	Halil Özcan Gülçür
144	Nesibe Ebru	Evran	2001	Halil Özcan Gülçür
145	Binay Özsoy	Demirbilek	2001	Selim Şeker
146	Sedat	Yoğurtçuoğlu	2001	Ahmet Ademoğlu
147	Çiğdem	Günsür	2001	Selim Şeker
148	Ufuk	Şentürk	2001	Albert Güveniş
149	Feride Şermin	Bilgen	2001	Ahmet Ademoğlu/Aykut Sümer
150	Rıfat Koray	Çiftçi	2001	Yasemin Kahya
151	Berna	Aslan	2001	Yusuf. P Tan
152	Esim	Yergin	2001	Cengizhan Öztürk
153	Devrim	Ünay	2001	Yekta Ülgen/Cengizhan Öztürk
154	Ertuğrul Burteçin	Aksel	2001	Mehmed Özkan
155	Nilgün Kara	Uzun	2001	Halil Özcan Gülçür
156	Işıl	Tezer	2001	Yekta Ülgen/Selma Karataş
157	Mehmet Olcay	Kılıç	2001	Ahmet Ademoğlu
158	Wassim Mohamad Ami	El-Soufi	2001	Sabri Altuntaş
159	Dilek	Göksel	2002	Mehmed Özkan
160	Ayşegül	Ergin	2002	Halil Özcan Gülçür
161	Arzu	Beklen	2002	Sabri Altuntaş
162	Murat	Sürücü	2002	Yekta Ülgen
163	Mete	Yeğiner	2002	Yasemin Kahya
164	Ali	İskurt	2002	Mehmed Özkan
165	İsmail	Koçak	2002	Halil Özcan Gülçür
166	Ahmet Erol	Fazlıoğlu	2002	Albert Güveniş
167	Arzu	Ergintav	2002	Ahmet Ademoğlu
168	Özgür	Kocatürk	2003	Mehmed Özkan
169	Sameer	Alsmadi	2003	Yasemin Kahya

170	Selda	Uzun	2003	Mehmed Özkan
171	Kadir	Tufan	2003	Ahmet Ademoğlu/Murat ege
172	Özgüncem	Bozkulak	2003	Murat Gülsoy/Neşe Bilgin
173	Haşim Özgür	Tabakoğlu	2003	Murat Gülsoy
174	Şenol	İşçi	2003	Cengizhan Öztürk/Ali Serpengüzel
175	Ömer Pars	Kocaoğlu	2003	Murat Gülsoy
176	Şeyma	Gören	2003	Sabri Altuntaş
177	Uzay Emrah	Emir	2003	Ata Akın
178	Ozan	Yılmaz	2003	Albert Güveniş
179	H.Yasemin	Keskin	2003	Ahmet Ademoğlu/Tamer Demiralp
180	Devrim	Kılınç	2003	Sabri Altuntaş/Aykut Sümer
181	Meryem	Çakıroğlu	2003	Ata Akın
182	Alper	Yaman	2003	Mehmed Özkan
183	Hisham	Alshaer	2003	Halil Özcan Gülçür
184	S. Sertan	Yılmaz,	2003	Yekta Ülgen
185	Adil Deniz	Duru	2004	Ahmet Ademoğlu
186	Bülent	Akbenlioğlu	2004	Selim Şeker
187	Gökhan	Işık	2004	Halil Özcan Gülçür
188	İzzet	Öney	2004	Levent Kurnaz
189	Özge	Tığdemir	2004	Yekta Ülgen
190	Evren	Aydın	2004	Cengizhan Öztürk
191	Sefer Burak	Kacar	2004	Ata Akın
192	Gökmen Hurşit	Özer	2004	Murat Gülsoy
193	Ozan Kemal	Erciyas	2004	Cengizhan Öztürk
194	Yiğit Ozan	Yılmaz	2004	Ata Akın/Ali Serpengüzel
195	Haydar Tan	Özüak	2004	Hale Saybaşılı/Reşit Canbeyli
196	Özlem Özmen	Okur	2004	Cengizhan Öztürk
197	Dursun	Gökmen	2004	Selim Şeker/Mehmed Özkan
198	Gülay	Gül	2004	Halil Özcan Gülçür
199	Pelin	Doğruöz	2004	Yekta Ülgen
200	Baki Serhan	Kalsın	2005	Cengizhan Öztürk
201	İsmail Burak	Parlak	2005	Ahmet Ademoğlu/Cengizhan Öztü
202	Burcu	Acar	2005	Ata Akın
203	Mustafa	Fidan	2005	Ata Akın

204	Meryem Ayşe	Yücel	2005	Ata Akın/Işıl Aksan Kurnaz
205	Şule	Yılmaztürk	2005	Mehmed Özkan
206	Ferda Devrim	Erdem	2005	Ata Akın
207	Koray	Özcan	2005	Ata Akın
208	Okan	Saldoğan	2005	Cengizhan Öztürk
209	Özge	Kalkancı	2005	Burak Güçlü
210	Serkan	Karaca	2005	Ata Akın
211	Yahya Civelek	Civelek	2005	Halil Özcan Gülçür
212	Ali	Bayram	2005	Ahmet Ademoğlu/Tamer Demiralp
213	Yüksel	Yazıcı	2005	Halil Özcan Gülçür
214	Gülşah	Kaçur	2005	Yekta Ülgen
215	Didem	Bilensoy	2005	Ata Akın
216	Filiz	Ateş	2005	Murat Gülsoy
217	Zeynep Dereli	Korkut	2005	Murat Gülsoy
218	Mehmet	Susam	2005	Cengizhan Öztürk
219	Mahmut	Haktan	2005	Albert Güveniş
220	Can Kemal	Ertan	2005	Yekta Ülgen
221	Cem	Geldi	2005	Murat Gülsoy
222	Korhan	Özer	2005	Murat Gülsoy
223	Serkan Uğur	Bayraktar	2005	Yekta Ülgen
224	Erkin	Öksel	2005	Cengizhan Öztürk
225	Akın	Yücetaş	2005	Ata Akın
226	Zeynep	Alptekin	2006	Ata Akın
227	Barış	Bilgin	2006	Albert Güveniş
228	Orkun Serdar	Doğruluk	2006	Halil Özcan Gülçür
229	Çiğdem	Öztek	2006	Burak Güçlü
230	Betül	Şahin	2006	Ata Akın
231	Canan Aslı	Ütine	2006	Burak Güçlü
232	Aykut	Yavuz	2006	Halil Özcan Gülçür
233	Andaç	Hamamcı	2006	Cengizhan Öztürk
234	Ahmet Bahadır	Otaran	2006	Murat Gülsoy
235	Mustafa	Namdar	2006	Halil Özcan Gülçür
236	Yasin Barış	Seven	2006	Can Yücesoy
237	Çağrı	Oğur (Beyazyüre	2006	Ahmet Ademoğlu/Tamer Demiralp

238	Buğra	Bayraktar	2006	Sabri Altuntaş
239	Serkan	Çelik	2006	Burak Güçlü
240	Ali	Murat	2006	Burak Güçlü
241	İlim	Çağıran	2006	Halil Özcan Gülçür
242	Yusuf	Korkmaz	2006	Murat Gülsoy
243	Emin Uğur	Bozkaya	2006	Burak Acar
244	Can Baran	Dilber	2006	Ahmet Ademoğlu
245	Onur	Yıldırım	2006	Ahmet Ademoğlu
246	Ayla Aksoy	Aksel	2006	Murat Gülsoy
247	Shavkat	Kuchimov	2006	Mehmed Özkan
248	Emir	Alkaş	2007	Ata Akın
249	Serkan	Berk	2007	Albert Güveniş
250	Sakine Şebnem	Ertürk	2007	Albert Güveniş
251	Korcan	Uçar	2007	Burak Güçlü
252	Gamze	Bölükbaşı	2007	Burak Güçlü
253	Hande	Çakıroğlu Doğu	2007	Yekta Ülgen
254	Gökçen	Yıldız	2007	Ahmet Ademoğlu
255	Murat	Tümer	2007	Yekta Ülgen
256	Mehmet	Kocatürk	2007	Mehmed Özkan
257	Şener	Erdem	2007	Burak Güçlü
258	Özgür	Genç	2007	Hale Saybaşılı
259	Sinem	Balta	2007	Albert Güveniş
260	Şeref Mete	Dinçer	2007	Burak Güçlü
261	Esin	Karahan	2007	Ata Akın
262	Hüseyin Hamdi	Eryılmaz	2007	Ahmet Ademoğlu
263	Nermin	Topaloğlu	2007	Ata Akın
264	Didar	Talat	2007	Albert Güveniş
265	Sinem Burcu Erdoğan	Erdoğan	2007	Ata Akın
266	Mustafa Zahid	Yıldız	2007	Burak Güçlü
267	Sıtkı	Akyon	2007	Yekta Ülgen
268	Perihan Selcan	Güngör	2007	Murat Gülsoy
269	Volkan Adem	Bilgin	2007	H.Özcan Gülçür
270	Muhammed Hakan	Köseoğlu	2007	Murat Gülsoy
271	Evrim Ece	Yardımcı	2007	Yekta Ülgen

272	Ahmet Sabri	Alper	2008	Cengizhan Öztürk
273	Serkan	Yelke	2008	Can Yücesoy+Burak Güçlü
274	Ercan	Kara	2008	Ata Akın
275	Barış	Özkerim	2008	Ata Akın
276	Onur	Özyurt	2008	Cengizhan Öztürk
277	Gülay	Hocaoğlu	2008	Can Yücesoy
278	Merdim	Sönmez	2008	Cengizhan Öztürk
279	Bora	Yaman	2008	Can Yücesoy
280	Volkan	Büyükgüngör	2008	Cengizhan Öztürk
281	Ceyhun Ekrem	Kırımlı	2008	Ata Akın
282	Onur	Ağuş	2008	Mehmed Özkan
283	Esin	Yavuz	2008	Burak Güçlü
284	Turan Deniz	Nevşehirli	2008	Ata Akın
285	Zeynep	Şeref	2008	Can Yücesoy
286	Elif	Kubat	2008	Ata Akın
287	Onur	İşcan	2008	Burak Güçlü
288	Neslihan	Sarıca	2008	Hikmet Üçışık
289	Bengi	Yılmaz	2008	Hikmet Üçışık
290	Hakan	Solmaz	2008	Yekta Ülgen
291	Ufuk	Demirci	2008	Albert Güveniş
292	Elif	Aydın	2008	Burak Güçlü
293	Abdülaziz	Akkılık	2008	Burak Güçlü
294	Kadir	Evcil	2009	Ata Akın
295	Rifat	Rasier	2009	Murat Gülsoy
296	Bahar	Kurt	2009	Murat Gülsoy
297	Ebru	Ünlü	2009	Ata Akın
298	Esra	Güven	2009	Albert Güveniş
299	Sinem	Serap	2009	Ata Akın
300	Seçil	Zeybekoğlu	2009	Mehmed Özkan
301	Burcu	Tunç	2009	Hikmet Üçışık / Metin Usta
302	Müge	Özker	2009	Ata Akın
303	Güneş Damla	Altınok	2009	Mehmed Özkan
304	Ufuk	Mat	2009	Mehmed Özkan
305	Duygu	Torun	2009	Burak Güçlü

306	Mehmet Doğan	Aşık	2009	Burak Güçlü
307	Yusuf	Arpat	2009	Mehmed Özkan
308	Sevinç	Mutlu	2008	Burak Güçlü
309	Alpaslan	Koç	2009	Albert Güveniş
310	Önder Emre	Arıkan	2009	Can Yücesoy
311	Ayşe Sena	Sarp Kabaş	2009	Murat Gülsoy
312	Dilara	Türegün	2009	Albert Güveniş
313	Sarkis	Sözkes	2010	Sabri Altıntaş
314	Ertuğrul	Akbaş	2010	Cengizhan Öztürk
315	Ahmet	Atasoy	2010	Mehmed Özkan
316	Nurettin	Heybeli	2010	H.Özcan Gülçür
317	Aydın	Duygu	2010	Ata Akın
318	Fatih	Akkentli	2010	Hale Saybaşılı
319	Engin	Demirel	2010	Cengizhan Öztürk
320	İsmail Enes	Özkalay	2010	Albert Güveniş
321	Fevzi Aytaç	Durmaz	2010	Cengizhan Öztürk
322	Melis	Alptekin	2010	Ata Akın
323	Ozan	Günaydın	2010	Mehmed Özkan
324	Taliha	Paşaoğlu	2010	Burak Güçlü
325	A.Levent	Kurtoğlu	2010	Albert Güveniş
326	Ülkü	Doğan Balcı	2010	Mehmed Özkan
327	Mehmet	Tardu	2010	Ahmet Ademoğlu
328	Fatma Tuğba	Köker	2010	Hale Saybaşılı
329	Ahu Nur	Türkoğlu	2010	Can Yücesoy
330	Yusuf Turgay	Ertugay	2010	Can Yücesoy
331	Selen	Ersoy	2010	Can Yücesoy
332	Fatma Gülden	Şimşek	2010	Yekta Ülgen
333	Ahmet Emir	Kavak	2010	Yekta Ülgen
334	Caner	Gümüş	2011	Mehmed Özkan
335	Sadık Hakan	Kayabaşı	2011	Albert Güveniş
336	Fatma Oya	Aytürk	2011	Can Yücesoy
337	Emre	Özdal	2011	Cengizhan Öztürk
338	Yunus	Karamavuş	2011	Mehmed Özkan
339	Meral Filiz	Somunyudan	2011	Murat Gülsoy

340	İsmail	Devecioğlu	2011	Burak Güçlü
341	Adem Umut	Günebakan	2011	Ahmet Ademoğlu
342	Meltem	Sevgi	2011	Cengizhan Öztürk
343	Pınar	Özel	2012	Ahmet Ademoğlu
344	Betül	Polat	2012	Burak Güçlü
345	Abdülkadir	Yazıcı	2012	Cengizhan Öztürk
346	İrem	Demirkan	2012	Murat Gülsoy
347	Arda	Varılsüha	2012	Cengizhan Öztürk
348	Ayşegül	Şen	2012	Murat Gülsoy
349	Çağatay	Aydın	2012	Ahmet Ademoğlu/ R. Koryay Çiftçi
350	Çağlar	Gök	2012	Burak Güçlü
351	Tüba	Akgül	2012	H.Özcan Gülçür
352	Mehmet Ufuk	Dalmış	2013	Ata Akın
353	Zeliha	Koç Söker	2013	Mehmed Özkan
354	Erman	Kibritoğlu	2013	H.Özcan Gülçür
355	Alp	Özdemir	2013	Ata Akın
356	Büşra	Kahraman	2013	Mehmed Özkan
357	Umut	Ağyüz	2013	Ahmet Ademoğlu
358	Mustafa Ümit	Arabul	2013	Cengizhan Öztürk/Burçin Ünlü
359	Meftune Özgen	Öztürk	2014	Bora Garipcan
360	Öznur	Demir	2014	Bora Garipcan
361	Osman Melih	Can	2014	Yekta Ülgen
362	Fatma Büşra	Özkan	2014	Burak Güçlü
363	Melike	Güney	2014	Murat Gülsoy
364	Nuray	Aysan	2014	Murat Gülsoy
365	Nihan	Namoğlu Cengiz	2014	Yekta Ülgen
366	Onur	Arslan	2014	Bora Garipcan
367	Seher	Uğurcuklu	2014	Albert Güveniş/Cem Özen
368	Duygu	Şahin	2014	Ahmet Ademoğlu
369	Fırat	Şansal	2014	Murat Gülsoy/Ata Akın
370	Bengü	Aktaş	2014	Bora Garipcan
371	Ayşegül	Tümer	2014	Yekta Ülgen/Ata Akın
372	Seçil	Önal	2015	Can Yücesoy
373	Heba	Alshorafa	2015	Murat Gülsoy

374	Mahmud Esad	Arar	2015	Mehmed Özkan / Burak Güçlü
375	Ayça	Aklar Çörekçi	2015	Can Yücesoy
376	Agah	Karakuzu	2015	Can Yücesoy
377	Roya Nouri	Rikabad	2015	Albert Güveniş
378	Sefa	Zülfikar	2015	Özgür Kocatürk
379	Adem Cihan	Aslan	2015	Albert Güveniş
380	Yasin	Çotur	2015	Mehmed Özkan/ Aziz Uluğ
381	Nurhan	Öztürk	2015	Albert Güveniş
382	Sezin	Eren	2015	Bora Garipcan
383	Hüden	Neşe	2015	Murat Gülsoy/Ata Akın
384	Baturay	Özgürün	2015	Murat Gülsoy
385	Samet	Kocatürk	2015	Burak Acar
386	Elif	Dönmez	2015	Bora Garipcan
387	Dursun Korel	Yıldırım	2016	Cengizhan Öztürk/ Özgür Kocatürk
388	Esra	Polat	2016	Albert Güveniş
389	Moataz	Assem	2016	Ahmet Ademoğlu/ Evalina Fedorer
390	Burcu	Başar	2016	Özgür Kocatürk
391	Yunus Engin	Gökdağ	2016	Özgür Kocatürk
392	Dilek Betül	Arslan	2016	Esin Öztürk Işık
393	Sevim	Nalçacı Cengiz	2016	Esin Öztürk Işık
394	Merve Birgün	Özçolak	2016	Bora Garipcan
395	Hayriye	Öztatlı	2016	Duygu Ege
396	Sabra	Rostami	2016	Bora Garipcan
397	Ecem	Şahin	2017	Bora Garipcan/ Ayşe Ak
398	Fatma Zehra	Erkoç	2017	Bora Garipcan
399	Fatih	Puza	2017	Bora Garipcan
400	Deniz Ece	Kaya	2017	Cengizhan Öztürk /Zühtü Tanıl Kar
401	Çağla	Özsoy	2017	Özgür Kocatürk
402	Arda	Arpak	2017	Can Yücesoy
403	Gökçe	Kasacı	2017	Özgür Kocatürk
404	Hatice	Kaya	2017	Duygu Ege
405	Deniz	Kılınç	2017	Burak Güçlü
406	İlayda	Duru	2017	Duygu Ege
407	Doğan Onur	Arısoy	2017	Cengizhan Öztürk

408	Ahmet Doğukan	Keleş	2017	Can Yücesoy
409	Özge Can	Kaplan	2018	Esin Ö. Işık
410	Ferah	İlter Vardal	2018	Can Yücesoy
411	Sedef	Yusufoğulları	2018	Burak Güçlü
412	Sahand	Ghaffari	2018	Murat Gülsoy
413	Nurettin Okan	Ülgen	2018	Ozgur Kocaturk
414	Ömer Batın	Gözübüyük	2018	Can Yücesoy
415	Doğugün	Özkaya	2018	Albert Güveniş
416	Elçin	Tunçkol	2018	Burak Güçlü
417	Sepideh	Tavakoli	2018	Duygu Ege
418	Nurcan	Güngördü	2018	Bora Garipcan
419	Gül	Öncü	2018	Hale Saybaşılı
420	Göktuğ	Şanlı	2018	Can Yücesoy
421	Ozan	Genç	2018	Esin Öztürk Isık
422	Erberk	Alpan	2018	Albert Güveniş
423	Nermin	Öztürk	2018	Esin Öztürk Isık/ Yekta Ülgen
424	İpek	Düzgören	2019	Murat Gülsoy
425	Günnur	Onak	2019	Bora Garipcan/Ozan Karaman
426	Ayşegül	Oral	2019	Albert Güveniş
427	Ayşenur	Yüksel	2019	Albert Güveniş
428	Efecan	Tatarlar	2019	Özgür Kocatürk
429	Ömer	Oylar	2019	Özgür Kocatürk
430	Başak	Bayrambaş	2019	Esin Öztürk Işık
431	Esra	Güben	2019	Duygu Ege
432	Şule	Yetiş	2019	Duygu Ege
433	Firas	Şueki	2019	Murat Gülsoy
434	Neslişah	Akyüz	2019	Esin Öztürk Işık/ Yekta Ülgen
435	Ezgi	Kara	2019	Albert Güveniş
436	Morteza	Abbaszadeh	2019	Hale Saybaşılı
437	Begüm	Devlet	2019	Burak Güçlü
438	Ürün	Eşen	2019	Burak Güçlü
439	Hilal	Yıldız	2019	Albert Güveniş
440	Melis	Toker	2019	Bora Garipcan
441	Berkay	Erenay	2019	Bora Garipcan/Sedat Odabaş

442	Burak	Altun	2019	Bora Garipcan
443	Ayhan	Gürsan	2019	Esin Öztürk Işık
444	Esma Ece	Uluğ	2019	Ahmet Ademoğlu
445	Morteza	Teymoori	2019	Özgür Kocatürk
446	Abdülsamet	Şahin	2019	Özgür Kocatürk/Burak Güçlü
447	Meryem	Şahin	2019	Hale Saybaşılı
448	Sibel	Sofuoğlu	2019	Murat Gülsoy
449	Sena	Salta	2019	Murat Gülsoy
450	Sefa	Erdoğan	2019	Ahmet Öncü/Cengizhan Öztürk
451	Harika Beste	Ökmen	2019	Albert Güveniş
452	İsmail Orkun	Akcan	2019	Can Yücesoy
453	Almila Ceren	Baykan	2019	Özgür Kocatürk
454	Utku	Can	2019	Can Yücesoy
455	Taha Süleyman	Hasekioğlu	2019	Burak Güçlü
456	Yunus Burak	Sur	2019	Cengizhan Öztürk
457	Berna	Eser	2019	Albert Güveniş
458	Senad	Tüzünoğlu	2019	Can Yücesoy/Yekta Ülgen
459	Müge	Türkaydın	2019	Bora Garipcan
460	Ayşe	Akgün	2019	Ahmet Ademoğlu
461	Gökçen	Boran	2020	Duygu Ege
462	Fikret Taygun	Duvan	2020	Burak Güçlü
463	Kenan Kaan	Kurt	2020	Özgür Kocatürk
464	Mohammed H. M.	Hammouda	2020	Can Yücesoy
465	Ahmet Fırat	Çakmak	2020	Albert Güveniş
466	Özde Zeynep	Güner	2020	Hale Saybaşılı/ Seniha Güner
467	Muhammed Munzer	Alseed	2020	Mehmed Özkan
468	Furkan	Durmuş	2020	Esin Öztürk Işık/ Bora Büyüksaraç
469	Anılcan	Çakır	2020	Bora Garipcan
470	Başak	Dalbayrak	2021	Hale Saybaşılı
471	Sevde Büşra	Bayrak	2021	Ahmet Ademoğlu
472	Hande	Halilibrahimoğlu	2021	Alpay Özcan
473	Alamira	Hajjar	2021	Daniela Schulz
474	Efe Cuma	Yavuzsoy	2021	Bora Garipcan/ Murat Kazancı
475	Mert Deniz	Polat	2021	Cengizhan Öztürk
476	Onur	Sürhan	2021	Can Yücesoy
477	İsmail	Erbaş	2021	Burak Güçlü

478	Ramazan Tarık	Türksoy	2021	Can Yücesoy
479	Burak	Gözütok	2021	Ahmet Ademoğlu
480	Cansu	Şen	2021	Özgür Kocatürk
481	Ahmet	Karagöz	2022	Albert Güveniş
482	İbrahim	Cansu	2022	Ahmet Ademoğlu
483	Dine	Güner	2022	Burak Güçlü/ Duygu Ege
484	Tuğba Ecem	Sakallı	2022	Bora Garipcan
485	Kutluhan	Mahmat	2022	Burak Güçlü/ Mustafa Zahid Yıldız
486	Ceren	Yüksel	2022	Albert Güveniş
487	Ayça	Ertan	2022	Murat Gülsoy/ Burcu Tunç Çamlıbe
488	Bilal Enes	Okatar	2022	Cengizhan Öztürk/ Ethem Güneren
489	Mohammad	Kassab	2022	Esin Öztürk
490	Duygu	Şirin	2022	Albert Güveniş
491	Sedef	Salel	2022	Banu İyisan
492	Enes Tarık	Aras	2022	Burak Güçlü
493	Kübra	Gökmen	2022	Özgür Kocatürk
494	Lina	Alqam	2022	Ahmet Ademoğlu
495	Alper	Atal	2022	Can Yücesoy
496	Fatma	Turan	2022	Can Yücesoy
497	Eda	Biricik	2022	Can Yücesoy
498	Damla	Kelle	2023	Banu İyisan
499	Ahmet	Alramly	2023	Ahmet Ademoğlu
500	Elif Özlem	Topal	2023	Banu İyisan
501	Betül	Tamer	2023	Daniela Schulz
502	Meltem	Uçak	2023	Bora Garipcan/ Banu İyisan
503	Fatmanur	Kınalı	2023	Mehmet Turan
504	Merve	Yünlü Doğruyol	2023	Murat Gülsoy
505	Emirhan Buğra	Albayrak	2023	Daniela Schulz
506	Aykut	Hınık	2023	Cengizhan Öztürk/Ömer Aydın
507	Mehmet Akif	Akdağ	2023	Burak Güçlü
508	Aslı	Akdeniz Karatay	2023	Burak Güçlü
509	Alparslan	Önder	2023	Ahmet Ademoğlu/Burak Güçlü
510	Gizem	Uysal	2023	Banu İyisan
511	Bahadır	Aytaç	2023	Albert Güveniş
512	Sait Emre	Doğan	2023	Cengizhan Öztürk/Bahattin Koç
513	Arun Ekin	Özkan	2023	Cengizhan Öztürk/Mehmet Emin A

TEZ KONUSU	ABSTRACT
Microprocessor Based Automated Arrythmia Monitoring System.	Heart disease is a majo
Biotelementry Systems and the Design Of a Low Cost Microprocessor Controlled Radiotelemetry System.	In this thesis, Bioteleme
Design and Instrumentation Of A Coronary Care Unit.	In this study, the main p
Mechanoelectric Transduction: A review and Methodologic Approach to Explain the Phenomena.	The phenomena of mec
Standards Of BM Devices in Foreign Countries and Turkey.	In this study, the standa
Establishing Biomedical Equipment Maintenance Programs for Hospitals in Turkey.	The function of a hospit
A Database Management System for Nuclear Medicine.	The purpose of this thes
Inventory Control in Clinical Engineering.	The purpose of the Equ
Magnetic Resonance in Medicine and Posibilities in Turkey.	Magnetic Resonance is
EMG Pattern Classification Based on AR Modelling.	Myoelectric control of pc
Applications Of Infrared Diode Laser in Medicine.	The extensive therapeu
A Computer Aided Biofeedback System.	Biofeedback devices, ur
Estimation Of Cardiac Parameters Using the Thin Elastic Tube Model for Arteries.	Mathematical analysis c
Improving Medical Diagnostic Information Through Better Usage Of Film Technology, 1986.	Photographic Quality As
Basic Standards Of Radiation Protection in Nuclear Medicine.	In this study, the basic s
A Computer Aided Analysis System For Studying Asymmetries in Normal Human Brain.	Left and right hemisphe
Effect Of Low Frequency Electromagnetic Fields in Treatment Of Fresh Fractures in Rabbits.	The use of electromagn
High Frequency Ventilation and Design Of Supplementary Units to Fresh Fractyres in Rabbits.	This study encompasse
3D Display Of Organs Using CT Data: Implementation on an IBM PC.	Three dimensional displ
Design and Implementation Of a Microprocessor Controlled Speech Synthesizer.	The system presented i
A Computer Simulation of The Human Cardiovascular System.	In this study, a systems
Design and Implementation of a Microprocessor Controlled Image Terminal.	The system presented i
Cardiac Parameters Estimation by Simultaneous Solution of Hemodynamics Equation Using the 6800-Microorocessc	The mathematical analy
3D Medical Imaging of Internal Organs on an IBM PC.	The aim of this thesis is
Effects of Pulsed Electromagnetic Noise Fields in Treatment of Fresh Fractures in Canine Rabits.	In recent decades elect
Hospital Information Systems.	In this thesis a basic ho
Programming A Microprocessor Controlled Speech Synthesizer.	This thesis work combir
Lesion Detectability in Nuclear Medicine.	In the thesis various par
Visual Evoked Potential Estimation with the Extended Kalman Filter.	In this thesis, a new me
Expert Systems in Diagnostic Medicine.	This thesis is a critical s
ESICIAB An Expert System for Identification of Clinically Important Aerobic Bacteria.	EICIAB is an expert sys
Applications and New Developments in Cardiac Pacing.	In this thesis, applicatio
Investigation and Evaluation of Clinical Laboratories of Hospştal in İstanbul in Terms of Analysis Devices.	Clinical laboratory is on

Electrode Scanning System for Electrical Conductivity Imaging.	To map out the change
Implementation and Evaluation of Three Compression Methods for Diagnostic Images.	In radiology, as a result
A Study on the Activities and Facilities of the 24 District Health Centers of İstanbul in 1989.	In this study, the activiti
Estimation of Single-Evoked Visual Potentials by means of Parametric Modeling and Kalman Filtering.	In this thesis, for the inv
Principles of Magnetic Resonance Imaging Resonance Imaging and Evaluation of Different Modalities.	Nuclear Magnetic Reso
Intraoperative Cardiac Mapping System.	An intraoperative cardia
An Optical Scanner and Character Recognition System.	This thesis work has air
Design of A Clinical Chemistry Spectrophotometer.	In this thesis, a clinical c
Spectral Analysis of Biomedical Signals with Special Emphasis on the EEG.	In the 1980's, especially
Design and Implementation of Computer Based Electrocardiography System.	A personal computer ba
Ergonomics and Safety in Dentistry.	Ergonomics and safety
Mechanical Properties of Cancellous Bone at Human Femoral Head.	Mechanical properties o
Lasers in Ophthalmology and Effect of some Laser Wavelengths on Ocular Tissues.	The proportion of the el
The Establishment of an Embryo Laboratory Complex for Assisted Reproduction.	Fertilization of human o
Instrumentation for EEG and EP Data Acquisition.	In this thesis, a compute
Development of a System for Determination of Different Types of White Blood Corpuscle (Leucocyte) in Dried Blood	The networks which are
Analysis of EEG_EP Variabilitied A Parametric Approach.	An user friendly Evoked
Design of a Microcontroller based ECG Monitoring System.	In this thesis, a microco
An Image Processing System for Radiologic Data on Convention Computers.	This thesis work is aime
Restoration of Function of the Paralyzed Eyelid by Electrical Stimulation.	Functional neuromuscu
Odor Measurement of Different Fungi by Using the Electro-Odocell.	In this thesis, a method
Mechanical Behavior of Skin Grafts.	In this study, the directio
Three-Dimensional Imaging in Medicine Development of a Software Library.	Advances in 3-D imagin
Observation, Parametric Modelling and Classification of Respiratory Sounds.	Auscultation is a widely
EEG Modelling Using Neural Network and Enhancement Averaging of Brain Evoked Potentials.	In this thesis, a new par
Computer Simulation of Cardiac Muscle Based On Contraction and Relaxtion Experiments.	The object of this study
External Multiprogrammable Pacemaker.	In this thesis, regarding
Comparison of ECG Data Compression Methods.	A broad spectrum of tec
Design of a Serial Data Collection System for Electrical Impedance Tomography.	This thesis is concerned
Estimation of Body Fluid Losses During Abdominal Surgery and Haemodialysis by Impedance Measurement Techniq	In this study a portable,
Detection of Fetal ECG Using the SVD Technique.	In this thesis, a multi-ch
A Data Acquisition system for Auditory Evoked Potential Monitoring During Anaesthesia.	A microcontroller based
Computer Interfaced CCD Camera.	This thesis work is aime
Image Reconstruction Using the Modified Newton-Raphson Algorithm for Electrical Impedance Tomography Based o	Electrical Impedance To

Mechanical Properties of Knee Joint Ligaments in Comparison to Tendons.	Design of a synthetic re
Statistical and Failure Analyses of Orthopedic Implants Used in Turkey.	Recent advances in scie
Simultaneously Monitoring of Standard ECG Leads.	ECG yields the most he
A Study of Hospital Information Systems from a technology Selection Viewpoint.	This thesis is a study of
Design of an ECG Gated Data Collection System for Electrical Impedance Tomography.	This thesis is concerned
Applicability of Boride and Nitride Type Ceramic Coatings on Surgical Stainless as Implant Materials.	Biomaterials to be used
Development of an Expert System for Medical Diagnosis of Most Common Lung and Ear-Nose-Throat (ent) Diseases	An expert system for me
A Novel PC-Based System for Evaluation and Management of Tinnitus Using Masking.	The objective of this stu
The Use of Laser Scanning in the Preparation of Computerized Skin Pigmentation and Topographic Maps.	This project involves a s
Acquisition of Diastolic Heart Sounds Via a Noninvasive Method.	It has recently been sho
A Neural Network Approach for Noninvasive Detection of Coronary Artery Disease.	Coronary Artery Disease
Multiple Frequency Bioelectrical Impedance Analysis to Assess Body Fluid Composition Changes with Altitude.	In this study, the body fl
A Flexible Hardware Implementation for Multifrequency EIT Measurements.	In electrical impedance
Analysis of Tracheal Sounds Acquired from Patient with Lung Cancer.	In this study an attempt
Detection of Sensorineural Hearing Impairment by Classifying Latency and Amplitude Parameters of DPOAE'S	Distortion Product Otoa
A Study on " Alumina-Zircon Ceramics as Biomaterials.	Implant materials are m
Detection of Auditory Brainstem Responses by Adaptive Filtering	In this thesis, EEG reco
Electrogastrography and the Analysis Using the Adaptive Spectral Analysis Method.	This thesis focuses on t
A Hardware Design for Brain Electrical Activity Mapping.	In this thesis a hardware
Development of a Computer Assisted Motility Monitoring System for Evaluation of Sleep Patterns of Newborns.	Many scientists have hi
Development of an Ultrasound Doppler Flowmeter for Measuring Low Blood Flow velocities.	Ultrasound Doppler syst
Electrical Properties of Bone and Isolated Skeletal Muscle.	In this thesis, an instrun
A Mobile Robot with A Biologically motivated Vision System.	Studies on the vertebrat
Temperature and Electropotential Changes of the Head-Skin and the Skull of the Rabbit due to Audio Stimuli.	Thermal behavior of the
Biocompatability of Hemodialysis Membranes.	With the development o
Design of a Vectorcardiography Monitoring and Recording System.	Recording the electrical
Implementation and Analysis of a Mammalian Ventricular Myocyte Model.	A mammalian cardiac v
Spectral analysis of heart murmurs for the detection of stenotic aortic valves.	The diagnosis and evalu
Comparison of spinal instrumentation systems.	Spinal Instrumentation S
Comparative studies of ultrasonography in orthopaedics,	In this study ultrasonogr
Tracking and failure analysis of orthopedic implants.	Orthopaedic implant ma
A Quasi-Linear Model for Finite Deformation of Human Articular Cartilage.	Articular cartilage, is a b
A User-Friendly Software for Generating Patient-Specific Masking Noise in Relieving the Incurable Tinnitus.	Tinnitus is a widely suffe
A Reconstruction Algorithm for Dynamic Imaging of Electrical Impedance.	In electrical impedance

Construction of a Medical Database System for Hemodialysis Patients Care and Tracting and Implementation of Ure	Today worldwide about
Stereotactic Guidance System.	The word stereotaxy is
Mass Angular Scattering Pofer Method Applied to the Therapeutical Electron Beams.	A method for determinir
Electromagnetic Compatibility of Hearing Aids with Digital Mobile Phones.	When the intensity of er
Production of Hydroxylapatite Reinforced Polymer Composites for Biomedical Applications.	Bone can be thought of
Correlation Dimension Conputation of EEG Time Series.	In this thesis, a software
Internet Based Distributed Medical Information System.	The broad objective was
A Tinitus Masking Software for Clinical Usage.	A PC based Tinnitus Ma
Quality of Fater Used in Water Treatment Systems for Hemodialysis.	Hemodialysis is a metho
Development of an Expert System for Nephrology.	N_EXPERT is an exper
Detection of P300 Component in Single Traials by an Artifical Neural Network.	In order to classify the P
Nocturnal Penile Tumescence monitoring in Erectile Male.	An instrumentation syst
Heat Sensitive Magnetic Resonance Imaging For Tissue Classification.	One of the most importa
Fractal Modeling of Surface Electrompogaphy (EMG) Signals for EMG Pattern Recognition by Artificial Neural Netw	Patterns of electromyog
A Statistical Insight into Orthopaedic Procedures Performed in Turkey During 1995.	The advances in various
Determination of Fluid Loss During Hemodialysis by Bioelectrical Impedance Analysis.	The object of this thesis
A Study on Alumina Reinforced Polymethylmethacrylate (PMMA) Composites as Dental Materials.	In this thesis, alumina re
Electrical Impedance Spectroscopy of Human Blood.	In this study, the specifi
Electrical Stimulation of Hemiplegic Forearm.	A cerebrovascular accid
Quality Improvement in Designing Diagnostic Tests.	Diagnostic tests are wid
Somatotopic Organization of Kinesthetic Cells in the Globus Pallidus Interna of Parkinson's Disease Patients.	In this study, the charac
A Diagnostic Expert System for Cardiological, Respiratory, Vascular and Hematological Diseases.	An expert system has b
Indentation Properties of Alumina Reinforced Polymethylmethacrylate (PMMA) Composites.	In this study, alumina re
Investigation of the Heating Effect of MRI on the Patients with Metallic Orthopaedic Implant Materials.	It is increasingly becom
Laser Assisted Photorefractive Correction Surgery.	By photoablating the co
Validation of Bioelectrical Impedance to Assess Body Composition Changes at Altitude.	In this study, Fat Free M
Design and Implementation of Microprocessor-Controlled Single Channel Functional Electrical Stimulator.	Functional electrical stir
Reading Aid For Visually Impaired (A Turkısh Text-To-Speech System Development).	Among various reading
General Purpose PC-Based Biopotential Data Acquisition System.	In this thesis, a hardwar
Correlation Dimension Analysis of EEG Data from Patients with Epilepsy, Schizophrenia and Alzheimer's Disease.	In this study, it has beer
Software Interface Development for Electrical Impedance Tomography.	Electrical Impedance To
An Intelligent Diagnostic System From the Clinical Narratives in Turkish.	Expert system usage er
True T1, PD Image Computation From A set Of T1 Weighted Images.	Segmentation of tissues
Design of an Intraoral Artificial Larynx System for the Total Laryngectomees.	The cancer of larynx is

In Situ Calibration of Earphone Input Signals Using Inverse Filtering and Implementation of a Feedback System.	Diagnostic measureme
Design and Development of Portable Tinnitus Masker.	Tinnitus (ear ringing) is
An Automated Real Time Physiological Viscometer.	Viscosity as hemorheol
Differential Diagnosis of Neuropathy and Myopathy using Surface EMG and Spectral Techniques.	Electromyography (EM
Pacs Infrastructure feasibility analysis in a 2500 Bed Hospital.	Günümüzde, radyolojik
Data Management System for the Pathology Department.	PATHOS is a data man
Feature Extraction from Mamographic Mass Shapes and Development of a Mammogram Database.	Breast cancer is one of
Hippocampal MR Image Optimization for Early Detection of Intractable Epilepsy.	Epilepsy is a brain diso
Computer Information System in the Clinical Laboratory.	At some point of our live
Specific Absorption Rate Assessment in a Human Head Model Exposed to Radiation from Cellular Phone.	The increasing use of e
An Automation Software for Anesthesia Information Management.	In this study, a software
EM Effects of Different mobile Handsets on Rats' Brains.	Wireless cellular teleph
An Information System for Quality Monitoring and Improvement in Obstetrics- A Six Sigma Approach.	The broad objective of t
Treatment of Standardized Femoral Osteotomies Using Extracorporeal Shockwave Therapy (ESWT).	ESWT is used in treatm
A Multi-Channel Biotelemetry System for the Acquisition and Processing of Respiratory Sounds.	Respiratory disorders ca
Modification of Neuronal Inputs to Premotor Cells of the Superior Colliculus by Intracollicular Circuitry.	Brief electrical stimulati
Determining the Optimum Reference Points for Selecting the Most Suitable Standard Impression Trays.	A tray selected for the d
Analysis of Tongue Motion Using Tagged Cine-MRI.	The motivation of this st
Atlas Guided Neurosurgery.	In this work, a computer
Evoked Potentials in Volatile Substance Abusers.	Organic solvents (espec
The Effectiveness of UV Radiation on Airborne Particles and Microorganisms in the Operating Theater.	The aim of this project i
An Open Graphics Library (Opengl) Based Toolbox for Biomedical Image Display and Processing.	By the development of
Bacterial Adhesion to Solid Surfaces and Its Prevention by the Application of Silver.	Silver, under different fo
Cardiac Motion Analysis in MRI for Classification.	Although several techni
Analysis and Classification of Temporomandibular Joint Sounds in Orthodontic Patients.	The Temporomandibula
Comparison of Surface Structures of Tooth Prepared by High Speed Rotary Burs and Air Abrasion.	Air abrasion technique f
Development of a Quality Assurance System for Bone Densitometer (DXA).	Osteoporosis is a disea
Classification of Lung Sounds Using Wavelet-Based Neural Network.	Computer-based systen
Radiological Report Entry Via Speech.	In this study, a general
Model of Laryngeal Resonance and Its Use in Improving Voice Quality Through Surgery.	Voice production is the
Internet Based Communication Network Between Doctors.	The main objective was
Non-Linear Analysis of Epileptic EEG Activity, 2002.	Individuals with epilepsy
Alternative Aneurysm Coil Detachment System Used for Endovascular Treatment of Cerebral Aneurysms.	Coil embolization is an e
A DSP Instrument for Real-Time Classification of Pulmonary Sounds.	The analysis of respirat

Fatigue Related EMG Power Spectrum Changes During Dynamic Contractions in Female Rowers.	The Surface Electromyo
Detection of Venous Gas Bubbles with Computerized Doppler Ultrasound.	Venous Gas Embolism
Comparison of 980-nm Diode Laser and ELECTROLYTIC LESIONS in RAT BRAIN BY SDS-PAGE and CD68.	There are several techn
Effects of the 980-nm Diode Laser Versus the Monopolar Electrocoagulator on the Rat Brain.	This work aims to comp
Microsphere Based Optical Biosensors.	Optical microsphere res
Characterization of Optical Properties of Biological Tissues.	Tıbbi laser uygulamalar
Production of Hydroxylapatite from Animal Bone.	Hydroxyiapatite (HAp) u
System Characterization for a Fast Optical Imager.	In contrast to morpholo
Virtual Gamma Camera for Educational Purposes.	Nuclear medicine is a m
Time-Frequency Analysis of Event Related Brain Potentials Elicited with Four Different Cognitive Paradigms.	Event related potentials
Shape Optimization of the Femoral Component of Cemented Hip Prosthesis Using Finite Element Analysis.	Aseptic loosening and s
Functional Near Infrared Spectroscopy as a Tool for Neuroimaging Studies.	Techniques to monitor b
Load Independent Trajectory Control for an Artificial Muscle.	In this study, the hyster
P-Vocad: A Portable Instrument for the Diagnosis and Follow up of Vocal Abuse Disorders.	In this thesis, a battery
Computer Simulation of NGF Induced TrkA Signal Transduction Pathway in PC12 Cells.	TrkA is a ligand activate
Source Localization of Electrical Dipoles in Electroencephalogram (EEG).	As a noninvasive neuroi
Em Effects of 1800 MHZ Signal Generator on Rats' Brain.	The use of radio waves
Design of Video Laryngeal Stroboscopy System for Studying Vocal Fold Pathology.	Video Laryngeal Strobo
Computer Simulation of Replication Potential of Cells Via Mapk Pathway	The defining feature of
Managing the Safe Use of Fluoroscopy in Interventional Procedures: A Case Study.	In fluoroscopy, the mac
Automatic Myocardial Strain Analysis in Cardiac Tagged MRI.	Tagged MRI has been i
Neurovascular Coupling Model of Brain Energy Metabolism.	Modeling of biochemica
Effects of the Low Level Laser Therapy on the Proliferation of Fibroblasts and Peripheral Blood Mononuclear Cells in	This thesis study contai
Development of a Visualization and Functional Analysis Software Platform for Cardiac MR Imaging.	Cardiac Magnetic Reso
Optical Biosensors Based on Microdevices.	Microspheres have gain
Hippocampal EEG and AEP after Colchicine Lesions of Medial Septum Cholinergic Cells.	The effect of colchicine
Contractility Analysis of Left Ventricular Myocardium Using Phase Contrast Magnetic Resonance Images.	Examination of myocard
Experimental Measurement of Electromagnetic Pollution and Modeling Study in a Typical Turkish Hospital.	Equipments used in hos
Evaluation of Functional Electrical Stimulation on Hemiplegic Children for Correcting Drop Foot.	Cerebral palsy (CP) is a
Designing a Phantom for Performance Evaluation of (DSA) Units.	Digital subtraction angio
Design and Implementation of Synchronized Visual Stimulation System for Functional Magnetic Resonance Imaging	This study aims to solve
Comparasion of Iterative Closest Point (ICP) and Thin-Plate Splines Methods for the 3-D Image Registration.	In medical image regist
Impementation of a Multi-Parameter Biomedical Monitoring System.	This study implements a
Modeling of Photon Migration in Tissue	Since biological tissue is

A Biochemical Model for the Interactions Between Tumor Cell Mass and Vascular Endothelial Cells Leading to Angio	The fact that the growth
Formation of Turkish Norms in Gait Analysis.	In this study, a normativ
Evaluation of Quadriceps Muscle Endurance with Functional Near Infrared Specroscopy (FNIRS).	Muscular endurance ev
Non-Invasive Monitoring of Gastric Motility in Humans.	Stomach is an organ of
Evaluation of Renal Function Using First Pass Contrast Enhanced MRI.	Magnetic Resonance Im
Measurement of Vibrotactile Thresholds of the Non-Pacinian Channel.	The aim of this study is
Wireless Functional Optical Imager.	Functional imaging of b
A New Hardware Design for Cardiac Passive Acoustic Localization.	Heart sounds contain va
Spatial Analysis of Event Related Brain Potentials (ERP) by Wavelet Transform.	Localization of the cogn
Design of a Transtelephonic ECG and Thermometer Device Using the Mobile Phone.	The need of effective ar
Design of a Pressure and Flow Measuring Equipment for Medical Use.	Accuracy and reliability
Cerebrovascular Dynamics in Migraine Measured with fNIRS.	Migraine is a neurovasc
Cancer Diagnosis Via Elastic Scattering Spectroscopy.	The goals of this study v
Tissue Welding with 980-nm Diode Laser System.	In this study, tissue welc
Intraoperative Coronary Blood Flow and Myocardial Perfusion Imaging Method by Means of Thermal Image Processi	One of the most popula
Computer Assisted Bone Age Assessment.	Bone age assessment b
Design of a Respiratory Monitor for the Teaching Laboratory.	The goal of this thesis w
Microcontroller Based High Power 809-nm Diode Laser Design for Biophotonics Applications.	High power diode lasers
Optical Properties of Native and Coagulated Lambs Brain Tissues in vitro in the Visible and Near-Infrared Spectral R	The aim of this study wa
Cross Calibration of Dexa by Using European Spine Phantom	Osteoporosis is a disea
Unsupervised Detection of Tissue Differences in Contrast Enhanced Breast MRI	This work aims to devel
Measurement of Oxidative Metabolism of the Working Human Muscles by Near Infrared Spectroscopy	Near Infrared Spectrosc
Measurement Changes in Cerebral Oxygenation and Hemodynamics During Obstructive Sleep Apnea by Functional	One of the most importa
Optimal Collimator Design Using Monte Carlo Simulation and RSM Breast Scintigraphy	Scintimammography ca
Minimization of Inhomogeneties in Magnetic Resonance Mammography	Magnetic Resonance M
Measurement of Vibrotactile Thresholds of Normal Children	In this study, the vibrota
Effect of Incident Light Intensity and Source-Detector Separation on Photon Migration Depth in Turbid Media	Diffuse optical tomograp
Supra-Threshold Contrast Perception in Glaumatous and Normal Human Subjects	The lateral inhibition me
A Fes Device developed for Treating Drop Foot	Multiple sclerosis, strok
Effects of Repetitive Retinotopic Stimulus on Viual Cortex fMRI Signal	The aim of this study is
An Investigation on Lighy Intensity Variation with Composite Resin Depth in Dental Curing Devices	In this thesis whether a
Wavelet Transform Based Electrocardiogram Compression and Comparison with DCT/DST Methods	In this thesis we investig
Biomechanical Analysis of Sit-to-Stand Motion in Children with Backpack Load	Sit-to-stand (STS) motic
Sub-Components of Event Related Potentials (ERP) Associated with Polymorphisms in Glutamate Gaba and Dopam	Event related potentials

Production of Orbital (Eye) Implant from Hydroxyapatite	When an eye was lost c
Mental Rotation & Mirror Image Recognition in Blinds, Blindfolded and Sighted	How the spatial informa
Active and Passive Processing of Sequential Tactile Inputs	In this thesis, a psychop
Generec Implementation of the Cortico-Hippocampal Model of Gluck and Myers in Hippocampal Region Atrophy	Hippocampal region dys
Investigation of 980-nm Diode Laser Parameters for Soft Tissue Surgery	Within 800 - 1064 nm s
SMT: Split/merge fiber tractography for MR-DTI	Magnetic Resonance D
Design and Implementation of Software for on EKG Based Remote Emergency Diagnostic System	This thesis aims for the
Embedded Software development for a GSM-Based Ambulatory EKG Device	Acute myocardial infarc
The Effects of MS/VDB Lesions on Behavioral Despair and Learning and Memory	The present study aime
Artificial Neural Network for Gait Disorder Classification	Developments in motior
Quantification of the Effect of Warm Up and Stretching on the Oxygen Metabolism Using an Improved Version of a fl	In the vastly improved fi
Design Optimization of a Continious Detector for PEM Imaging with Resolution and DOI Capability	The objective of this the
Evaluation of the Continious Detector Conceptor for Pet Systems Dedicated to Small Animals by Using the Monte Ca	A detector design espec
Classification of Tactile Units of Frogs using Von Frey Monofilaments	Twenty-four mechanore
Effects of Various Parameters on Binocular Rivalry	In daily life, the two eye
Design of the Biomedical Calibration Laboratory Quality Manual for EN 17025:2005	According to the New A
Bayesian EEG Source Reconstruction Using Markov Chain Monte Carlo Methods	Electroencephalography
Design of a Wide Range KVP - Meter	The kVp setting is one c
Design of a WI-FI Based Electrocardiography Monitoring System	The objective of this pro
Building a Measurement Setup for the Investigation of Acoustic Cavitations for Medical Applications	Various noninvasive me
Investigation of Lipid Signaling in Rat Hipocampal Slices with Patch-Clamp Tight Seal Whole Cell Technique	Ceramide, besides its s
Robust Design of Breast Scintigraphy Collimator Using Monte Carlo Simulations and Response Surface Methodolog	Breast Scintigraphy, a r
Magnitude Estimation by The Non-Pacinian I Tactile Channel	Psychophysical respons
An Autoregresive With Exogenous Model Approach To Functional Near Infrared Spectroscopy Data Acquired From M	This study is focused or
Correlation Between fMRI and Source Reconstructed EEG Of Steady State Visual Evoked Potentials	Electroencephalography
The Effects Of Methylphenidate On Brain Hemodynamics Of Attention Deficity/Hyperactivity Disorder Measured By F	Attention-deficit/hyperac
Investigation Of The Effect Of Crystal Thickness On The Spatial Resolution and Linearity Of A PEM Detector Using A	The objective of this the
Evaluation Of Local Oxygen Consumption In Human Flexor Digitorum Superficialis Muscle by Near Infrared Spectros	A strong relationship be
Optical Tactile Array Sensor For Lump Detection In Soft Tissue	Tactile information has
Design Of A Software Platform For The Quality Control Of Main Blood Products	In modern blood bankin
Low Level Laser Therapy on Human Adipose Tissue Derived Mesenchymal Stem Cells	Recent in vitro studies c
Importance of Hyoid Region in Voice Quality	Speech is a combined f
Examinition of Tissue Temperature Profile DuringPhotothermal Interaction of Laser Irradiation	During laser surgery, te
Design of a Medical Equipment Managment Software	In this thesis, a medical

Stimulus Frequency Dependancy of Post Stimulus Undershoot of the BOLD fMRI Signal	The aim of this study is
Three-Dimensional Finite Elemt Modelling of Pacinian Corpuscle	Understanding the mecl
Subband Filtering of fNIRS Data From Schizophrenic Subjects	Schizophrenia is a neur
Fiber Optik Based Continuous Wave Functional Near Infrared Spectroscopy System	In the last decade, funct
Magnetic Resonance Imaging of Cerebral Perfusion Using DSC and ASL Techniques	Magnetic resonance ima
Partial Fasciotomy Has Major Effects On Muscular Mechanics Due Altered Epimuscular Myofascial Force Transmiss	In remedial orthopedic s
A Fiducial-Based Automatic Registration Method For X-Ray Imaging Fused With MRI	X-ray fluoroscopy is wid
Effects Of Aponeurotomy On Mechanics Of Muscle With Intact Neighboring Muscular and Nonmuscular Structures	Aponeurotomy (AT) is a
Realtime Temperature Measurement Using Gradient Echo Magnetic Resonance Imaging	Heat induced local thera
Working Memory Performance Assesment While Monitoring The Prefrontal Cortex Hemodynamics by Means Of Fun	One of the popular expe
Calculation Of True T1, T2 and Proportion Density Images For The Elimination Of Signal Intensity Artifacts Segment	Segmentation of tissues
Nonlinear Time Series Analysis Of Monkey Vocalizations	Primate vocalizations ar
Cerebrovascular Reactivitiy of Free Divers Measured with fNIRS.	Although breath-hold div
Acute Effect of Aponeurotomyperformed at multiple locattions of muscular mechanics: assessment bu Finite Elemer	The specific goal of the
Evaluation of The Effects of Aging on Brain Assymetry With Functional Near Infrared Spectroscopy	Cognitive aging is a nat
Asynchronous Processing of Luminance Difference and Motion in Visual Perception	This study is related wit
The Effect of Reuse Solution of The High Flux Polyamide Hollow Fiber Membranes in Hemodialysis	In order to question the
The Effect of The Dialysis Environment and Reprocessing Procedure on the Mechanical and Structural Stability of Hi	Although there are man
A Microcontroller Based 100kHz-1MHz Multifrequency Bio-impedance Measurement Device	Complex impedance me
An Internet Based System For Monitoring Patients And Relatives Satisfaction Raates in Health Services	The aim of the study is t
Differantial Effects Of Short Light Pulses in The Dark Phase of An L/D Cycle On Behavioral Despair in Male Wistar R	The present study inves
Evaluation Of Force velocity Characteristics Of Quadriceps Muscles By Means Of Peak Torque Angular Velocity Rel	In this thesis, an experir
Optical Probe Design For Continuous Wave Near-Infrared Spectroscopy	The modern medicine is
Infrared Lasers For Corneal Tissue Welding	Objective of this study is
Simulation of Optical And Thermal Responses of Laser Irradiated Tissue	A Java Simulation Appli
Hemodynamic Correlates Of Mental Aritmetic Task in Migraine	: Investigating the relatio
Implementation And Statistical Evaluation Of Computer Assisted TW2 Method For Bone Age Assessment	The most commonly use
Investigating Brain Hemodynamics Of Schizoprenic Patients by Functional Near Infrared Spectroscopy	People can easily stop t
Clasification Of ECG Arryhtmia Beats With Artificial Neural Networks	Electrocardiography (EC
The Side Effects Of Different Antiembolic Agents On The Fracture Healing And Micro-Mechanical Behavior Of The F	Fracture of bone is alwa
Investigation Of Neurovascular Coupling By Synchronous EEG And fNIRS Measurements During Steady-State Visua	In this thesis, the steady
Gui Driven Sigma-Delta Modulator Design And Measurement Tool With A View Of Medical Ultrasound Imaging Imple	The widespread use of
Multimodal Segmentation Of Brain MR Images Through Hidden Markov Random Fields	Segmentation of brain M
Somatosensory Brain Responses Evoked By Vibrotactile Stimulation Of The Distal Phalanx In Normal Subjects	The sensory response u

A Device For Functional And Cosmetic Improvement Of Lagophtalmos Due To Facial Paralysis	A new device for the co
Pure Tone Audiometer Design	Audiometry is a techniq
The Effects Of Serotonin And Its Antagonists On Slowly Adapting Type I Mechanoreceptive Fibers In Frog Skin	It was intended to inves
Evaluation Diagnostic Loss In Compressed Medical Images Using Computer Simulation	The objective of this the
Effects Of Epimuscular Myofasciaş Force Transmission On sensory Level Experimental Assessment By Afferent Sig	It has shown that non-t
Ceramic Bracket Debonding With Infrared Lasers	Orthodontics is a specia
Tracking The Quality Of A Biomedical/Clinical Engineering Unit Using Statistical Process Control	Since, healthcare is an
Biomedical Design For Improving The Primary Stability Of Dental Implants In Poor Bone Quality	Like so many other disc
Remote Quality Assessment And Research Support Systems For Advanced MRI Studies	User interventions and
Hardware Interface For A 3-DOF Surgical Robot Arm And A 6-DOF End Effector	Robotic surgery aims m
The Effects Of Irradiation On Bone Fracture Healing: Can It Promote Mineralization At Low Doses?	Non-union, or delayed u
Effect Of Diabets Meelitus On Gastric Motility: An AGG Study	Longstanding diabetes
Rotenone Interference With Neuronal Transmission In Hippocampus	Rotenone is a pesticide
Automatic Postprocessing And Reporting Tools For Functional Neuroimaging	For advanced magnetic
Computerized Bone Age Assessment For Zero-To –Seven Age Interval	The goal of this thesis is
Advanced Registration Tools For XFM	Minimally invasive thera
A Mathematical Model For Cerebrovascular Dynamics	Human brain goes throu
Design Of A Brain Computer Interface Based On EEG	A Brain Computer Interf
A study On The Neuroendocrine Hormone Levels And Psychophysıologıcal parameters In Excessıve Computer Gam	Excessive gaming may
Image Qualıty Evaluatıon Of Ultrasound Images Usıng Computer Sımulatıon	Image quality, for scient
Medemas-Medical Devide Maıntenance Management System Via Remote Access	As the technology impro
Acorrelatıonal Study Between Serum Cytokıne Measures.Volumetric Mr Measures And Global Cognıtıve Changes In	Earlier detection and dia
Investıgatıng The Effects Of Ceramıde And Sphıngomyelınase On The Nmda Receptör Of Hıppocampal Cell	Ceramide is a structural
Mechanıcal Effects Of Botulınum Toxın Treatment On Isolated Muscle:Assesment Of Theoretıcal Paralyzatıon Patte	The specific goal of the
Effects Of Preconditioning Over History Effects In Skeletal Muscles Of Rat	It has been already kno
Analysis Of Effects Of Manual Therapy On Muscular Mechanics Using Finite Element Modelling	In this present study, th
Cole Parameters Of Human Blood With Different Anticoagulants	Impedance spectroscop
Comparion Of Particle Counting And Microbiological Sampling Methods At Rest And During Surgery	Air quality monitoring in
Autostreoscopic Displays In Computer Assisted Surgery	Using images for diagno
Design Of A 32" Colr TFT LCD Pacs Monitor And Its Clinical Evaluation Through ROC Analysis	One of the most importa
Intraoperative Measurement Of Human Spastic Gracilis Muscle Isometric Forces As A Function Of Knee Angle	Spasticity is a neuromus
Software Development for X-Ray Fluoroscopy And MR Image Fusion	In interventional radiolo
Calculating The Magnitude Of Transfer Functions For Hearing Aids By Insertion Gain Measurements	While the hearing loss is
Endonenous Laser Ablation: Different Lasers And Delivery Techniques	Endovenous Laser Abla

Effects Of Contactor Size And Stimulation Distance On The Response Properties Of Rapidly-Adapting Tactile Fibers	Recent population mode
Graph Theoretical Analysis Of Functional Human Brain Network	Recent studies suggest
Bayesian Modelling And Interference For Functional Magnetic Resonance Imaging OfThe Visual Cortex	For the most effective u
Volumetric MRI Analysis Of Thalamic Stroke Patients	The thalamic pain syndı
Tactile Mental Rotation in Blindfolded and Congenitaly Blind Subjects	Mental rotation is the pr
Development Of an Acqusition and Image Enhancement Platform for Digital Dental Imaging	With technologıcal deve
1940-nmThulium Fiber Laser Ceramic Bracket Debonding	The aim of the study wa
Implementation of Tomosynthesis in Dental X-Ray Imaging	Digital tomosynthesis is
Laser Etching of Enamel for Bonding Orthodontic Brackets	The aim of this study is
Functional Parcellation of Memory Related Brain Networks by Spectral Clustering of EEG Data	The EEG signal and its
The Effects of Skin-Tissue Morphometry on the Mechanical Impedance of Rat Glabrous Skin	In this thesis, the mecha
Effects of Early and Delayed Laser Application on Regeneration	Studies to understand tl
Similarity and Consistency Analysis of Functional Connectivity Maps	Functional connectivity (
Auditory Brain Response Detection Using a Portable EEG Headset	In general terms, evoke
Die Lectophoretic Force Stimulation for Bone Fracture Healing	On the average, a perso
Sensitivity and Speccifity of the Multi-Channel Cw-fnirs for Medical Purpose	In last decades, optical
A Mobile Urine Analysis Systems for Homecare	Urinalysis is a remarkab
Identifying Gene Interactions for Time Series Microarray Data Using Dynamic Bayesian Networks and External Biolo	DNA hybridization array
Development of a Novel Fiber Laser Based Backward-Mode Photoacoustic Microscopy System and Image Characte	Among all other imaging
Preparation And Characterization of Cartilage Mimicked Structures	In this thesis, micro-env
Bone Surface Mimicked Biodegradble Polymeric Scaffolds	In this thesis, bone surfa
Analyzing The Efficiency of The Colorimetric Tezhnique in Determining The Degree of Hemolysis of Stored Blood	Transfusion has risks of
Effect of Self Movement on Absolute and Masked Thresholds in the Pacinian Channel	In this thesis, we simula
In Vitro Investigation of The Potential of 1940nm Thulium Fibre Laser as A Surgical Tool For Oral Soft Tissue	Lasers of different wave
Evalution of Lifht and Concentration Dose on Cell Viability at Photodynamic Therapy in vitro	Photodynamic Therapy
Network Security Vulnerabilities and Pernonal Privacy Issues in Healthcare Information Systems: A Case Study İn A	Healthcare industry has
Biochemical Modification of Biodegradable Nanofibers	Organ and tissue losses
Modeling and Evolutionary Analysis of Gene Regulatory Networks	In Systems Biology and
Functional Connectivity Network Analysis of Alzheimer and Mild Cognitive Impairment Patients	In our era, while the life
Predictability of Cognitive Performance Based on Functional Neuroimaging via fNIRS	In neuropsychology mar
Amino Acid Conjugated Self Assembly Molecules Modified Si Wafers	In this thesis, Si wafer s
Optimization of Fnirs Probe Geometry to Eliminate Non-Brain Tıssue Contamination	Functional near infrared
The Effects of Femoral Anteversion on Knee Power in Children with Cerebral Palsy	The knee is the most ac
Photothermal Ablation of Liver Tissue with 1940-nm Thulium Fiber Laser: Ablation Effciency and Temperature Meas	The purpose of this stuc

Desing of A Computer-Controlled Current Stimulator for Nerve and Muscle Excitation	Electrical stimulation of
MRI Analyses in the Lower Leg to Asses Mechanical Effect of Drop Foot Taping Applied Over Tibialis Anterior	Kinesio Taping (KT) is u
Assessment of Local Deformations Along Muscle Fibers of Human Bastrocnemius on Submaximal Isometric Maintai	Comprehensive underst
Clinical Evaluation of Table, Large Screen Tr and Medical Grad Monitors for Teleradiology and General Use Purpose	One of the most importa
Novel Mouthpiece Device Design for the Treatment of Mild to Moderative Obstructive Sleep Apnea	Sleep is essential for go
Effect Of Tumor Deliniation Strategies On ANN Clasification Accuracy in Lung CAD	Lung Cancer is a seriou
Probabilistic Determination Of Brain Tumor Locations	Determination of the ori
Evaluation Of A Fuzzy Logic Based Computer Aided Diagnosis System For Chest X-Ray Nodule Detection And Char	Computer aided system
Protein Absorption on Amino Acid Conjugated Self Assembled Molecules	In this thesis, novel ami
Functional Connectivity During Rest and Task: A Study Based on Graph Theoretical Metrics	In this study, task-relate
Ablation Efficiency and Thermal Damage Of Infrared Lasers On ex vivo Lamb Brain Tissues	The objective of this inv
Time-Windowed Block For Unmyelinated Fibers in The Sciatic Nerve Of The Frog	An artificial sensation ca
Investigation Of The Effect Of FMOC Amino Acids Modifications To Osteoblast Behaviour On RGO/ Ti Surface	In this thesis, adhesion,
Development Of A Computer Controlled Fabrication System For Interventional Magnetic Resonance Imaging Device	Magnetic Resonance Im
Reliability Improvement Of Computer Aided Daignostic System Using Mutual Information	Computer aided diagno
Inter and Intra-Individual Behavioral Variability Predicted by Neural Activity in the Multiple Demand Network	A wide range of cognitiv
An MR Safe Nitinol Guideware Design For Intravascular Applications	Magnetic resonance ima
Image Denoising and Image Enhancement on the Applications of Confocal Laser Scanning Microscopy	Confocal laser scanning
Measurement of Cerebral Perfusion in Parkinson's Disease with Mild Cognitive Impairment Using Arterial Spin Labeli	Mild cognitive impairme
Determination of Biomarkers for Mild Cognitive Impairment in Parkinson's Disease Using Magnetic Resonance Spec	Parkinson’s disease (PD
Bone Surface Microenvironment Mimicked Biodegradble Scaffolds for Osteogenic Stem Cell Differentiation	The change of the surfa
Production and Characterisation of Poly(L-Lactic Acid)/Graphane Oxide Nanofibers for Nerve Regeneration	The development of bio
Fabrication and Characterization of Sharksin Mimicked Chitosan-Graphene Oxide Nanocomposite Membranes	In the presented thesis,
Amino Acid Conjugated Alginate-Graphene Oxide Scaffolds	In this thesis, fabricatior
Developing Artificial Corneal Endothelium Micro-Environment Using Bioinspired Approach	In this thesis, micro-env
Fabrication of Bone Surface Mimicked Biodegradable Chitosan-Graphene Oxide Nanocomposite Membranes	Biomaterials and tissue
Observable Real-Time Pulsed Field Gel Electrophoresis	Pulsed-Field Gel Electro
RF Shielding Optimization for Non Planar Surfaces in Interventional MRI Devices	Magnetic Resonance Im
Deformation Along Human Medial Gastrocnemius Muscle Fibers in vivo During Low Level Plantar Flexion Activity	Mechanical behavior of
A Novel Desıgn Of Mrı Visible Prostate Bıopsy Needle	A reliable diagnosis is v
Effect Of L-Argınıne Conjugated Carbon Nanotube (Cnt) Reınforced Sulfonated Polyether Ether Ketone (Speek) Nar	Poly ether ether ketone
Effects Of Frequency On The Temporal Summatıon In The Pacınıan Psychophysıcal Channel	According to the tempor
Self-Assembly Technıque For Producıng L-Argınıne/Hydroxyapatıte Coatıngs On Ti6al4v Implants	In the present study, we
Desıgn Of A Cardıovascular Sımulatıon Cırcuit Drıven By Tıme Varyıng Elastance	Chronic Heart Failure (C

Development Of Neural Network Based Algorıthm Of Actıve Ankle Prosthesıs Usıng Gaıt Analysıs Data	Amputation is the remov
Determınatıon Of Dıffusıon Weıghted Magnetıc Resonance Imagıng Based Bıomarkers Of Mıld Cognıtıve Impapırme	Parkinson's Disease (Pl
Effects Of Botox On Non-Injected Muscles' Mechanıcs And Myofascıal Force Transmıssıon	Studies show that Botul
Layer Specıfıc Dıstrıbutıon Of Muscarınıc Receptor M2 In The Sensorımotor Areas Of Rat Braın	Current understanding c
Potassium Iodide Potentiated Photodynamic Inactivation Of Enterococcus Faecalis Using Toluidine Blue: Comparativ	Antimicrobial Photodyna
Fıber Optıc Based Force Sensor Desıgn For Prostate Bıopsy Procedure Under Mrı	Fabry-Pérot Interferome
Effects Of Low Intensıty Blood Flow Restrıctıon And Hıgh Intensıty Resıstance Traınıng On Muscle Stıffness	Blood flow restriction tra
Comparıson Of Machıne Learnıng Algorıthms For Blood Glucose Predıctıon On Aıda Sımulator	of real patient data is th
Effects Of Affectıve Touch On Ultrasonıc Vocalızatıon And C-Fos Expressıon In Rats	The sense of touch has
Graphene Oxide As A Drug Carrier For Delivery Of Zoledronic Acid In Secondary Bone Cancer Treatment	In this study, Zoledronic
Characterization Of Non-Faradaic Label Free Impedimetric Electrochemical Sensor.	The developments in m
Computatıonal Analysıs Of Acds In Ca1 And Ca3 Pyramıdal Neurons Wıth Axon Carryıng Dendrıtes	Pyramidal neurons are t
Combıned Effects Of Foot Placement Technıque And Sport Specıfıc Habıtual Traınıng On Landıng Mechanıcs	Correct technique that p
Magnetıc Resonance Imagıng Based Dıfferentıal Dıagnosıs And Prognosıs Of Mıld Cognıtıve Impaırment In Parkıns	Parkinson's disease mil
Measurıng Eye Fatıgue Of Radıologıst At Readıng Room And Daylıght Illumınatıon Condıtıons	With the revolutionary d
Screenıng Post-Menopausal Women For Bone Mıneral Level By Bıoelectrıcal Impedance Spectroscopy Of Dominan	Dominant arm bioimpec
Effect of Different Laser Power Densities On Efficinecy Of Photobiomodulation Of Mouse Fibroblasts In Vitro	The purpose of the pres
The Effect of Nanofiber Surface Modification On Osteogenic stem Cell Differantitation	Optimization of nanofibe
Optimization Of Spect For Parathyroid Imaging With Varying Instrumentation Parameters: A Simulation Study	Parathyroid problems ar
Optimization Of Acquisition And Processing Parameters In Sentinel Lymph Node Scintigraphy Using Spect/CT Monte	Although single photon
A Phantom Study: Evaluation Of A Novel Three-Lumen Balloon Catheter Fro Treatment Of Intractable Limb Ischemia	Peripheral artery diseas
Simulation Software For A Human Ventricular Myocyte Model	Cardiovascular disease
Breastis: A Software Tool For Flexible Breast MRI Analysis	Magnetic resonance ima
In Vitro Studies Of Carboxymethyl Cellulose/Gelatin And Calcium Phosphate/Calcium Sulfate Cement Based Compo	In this study, a calcium
Structural And Mechanical Characterization Of Calcium Phosphate Cements (CPCs) With Different Powder-Liquid R	Calcium phosphate cem
Increasing Photodynamic Therapy Efficacy By The Natural Compound Curcumin	Photodynamic therapy (
A Comprehensive Medical Equipment Management Software System For Increased Patient Safety	A medical equipment sy
Can Smart Phones Be Used In A Teleradiology Setting For Evaluating Lung Cancer Therapy Response?	Works to be done daily
In Vitro Models Fro Studying Neurogenerative Diseases Based on SH-SY5Y Cell Line	The main objective of th
Effects Of Basal Forebrain Stimulation On The Distribution Of Cholinergic Receptors In The Sensorimotor Cortex Of	In this thesis, the effects
Tactile Processing And Vibrotactile Discrimination Capacity In Children With Tourette Syndrome	Tourette Syndrome (TS
Multiple-Parameter Optimization Of The Sln Spect /Ct Imaging Protocol Using Monte Carlo Simulation For Precision	The most encountered c
Decellularization And Characterization Of Leek: A Potential Cellulose-Based Biomaterial	Cement industry is ener
The Effect Of Bone Surface Mimicked Magnetic Particle Embedded Pdms Membranes On Human Osteoblast Behav	Cell microenvironment c

Acoustic Impedance Measurement Of Tissue Mimicking Phantoms By Using Scanning Acoustic Microscopy	Phantoms are imaging
Comparison Of Mega-Press And Short Echo Time Press On Classification Of Idh Mutation Using Machine Learning	Malignant glioma is a ty
Surface Based Morphometry In Alzheimer's Disease	Alzheimer's disease (AD
Design And Optimization Of A Miniature Actuator Using Shape Memory Alloy (Sma) Wires	Microfluidic systems hav
Novel Flat Interface Nerve Electrode (Fine) Design By Electrically Driven Shape Memory Alloys (Smas)	Flat Interface Nerve Ele
Optimizing Sh-Sy5y Cell Differentiation Into Neurons And Investigating The Effects Of Flavonoids On Neurodegener	Parkinson's disease is t
Comparing Bacterial Colonization Of Laser Etched And Acid Etched Enamel In Bonding Orthodontic Ceramic Bracke	The aim of this project c
Development Of Cancer Theraphy Wıth Icg-Pdt Supported By Gold Nanopartıcles	Photodynamic therapy (
Non-Contact Breathing Abnormality Detection Using Machine Learning	Respiratory diseases ar
Predicting Von Hippel Lindau (Vhl), Polybromo-1 (Pbrm1) Mutations And Stages Of Clear Cell Renal Cell Carcinoma	RCC is the most prevale
Botulinum Toxin Type A Spread Into Non-Injected Antagonistic Muscles Causes Increased Extracellular Matrix Collagen	
A Novel Left Atrial Appendage Occluder Design	Percutaneous left atrial
Patient Specific Musculoskeletal Modeling To Relate Intra Operative Muscle Force Data To Gait In Cerebral Palsy	Increased pathological
Design Of A Virtual Environment For Discrimination Tasks To Determine The Psychometric Function	In this thesis, we used t
Image Reconstruction In Dental Tomosynthesis With Stationary Detector	Tomosynthesis is an im
Evaluation And Analysis Of A Computer Aided Diagnostic System For Lung Nodule Assessment In Ct Scans	Throughout the process
Design Of A Breathing Simulator Generating Adult And Pediatric Patterns	In this thesis, a mechan
Amino Acid Conjugated Self-Assembled Molecules Modified Titanium Surfaces	The goal of this thesis is
EEG Data Classification Using Multilinear Regression Model	Brain Computer Interfac
Effects of Bisphosphonate/ Graphene Oxide Complex on Proliferation And Diifferentiation Of Mesenchymal Stem Ce	Bisphosphonates have
Functional Characterization Of Graphene-Based Thin-Film MicroElectrodes On Rat Sonsorimotor Cortex	Neuroprostheses based
Pectus Bar Bender and Designer Sorftware to Enhance Pectus Excavatum Surgerless	Pectus excavatum is ca
Investigating Skeletal Muscle Adaptations Due to BTX-A Injections Using Agent-Based Modelling	Local application of Bot
Comparison Of Open Source Tumor Growth Simulation Software And Multiscale Tumor Modelling	Cancer is a complex dis
Functionalization Of Carbon Nanotubes For The Drug Delivery In cancer Treatment	Cancer is a significant h
Mechanical Modelling And Design Of The 4 Fingers Of An Anthropomorphic Robotic Hand	Anthropomorphic roboti
Characterization Of Pulmonary Arterial Branching In Rat Fetuses W,ith Congenital Diaphragmatic Hernia	Congenital diaphragmat
Biomimetric Apatite Coating On 3D Printed Scaffolds For Bone Tissue Engineering Application	Bone-like apatite coatin
Creatıng A 3D Neuronal-Culture Usıng Algınate And Collagen Hydrogels Optımal For Neuronal Survıval And Axon G	Alginate is a natural line
Braın Computer Interfacıng(BCI) Data Analysıs Usıng Graph Sıgnal Processıng	Data have been growing
Predıctıng Glioma Molecular Subtype From Dıffusıon Anısotropy Indıces Dıstrıbutıons	Incorporation of glioma
Measurıng Effortful Motıvatıon Wıth Heffort :Psychometrıc and Valıdatıon Usıng Machine Learnıng	Lack of motivation can a
Preservation Of The Collogen Structure By Coaxial Electrospining Methods	Collagen is one of the n
A Modular Scalable Detector Acouısıtıon System For Medical X-Ray Applıcatıons	This thesis project prop
Development Of Powered Ankle Prosthesıs Classıfacıtıon Algorthms For Step-Up Vs.Step Down Movements Usıng	Rapidly increasing deve
Fpga Implementtatıon Of Machıne Learnıng Algorıthms For Vıbrotactıle Feedback ın Prostheses	This study aimed to app

Developmnet Of Semg And Artıfıcıal Neural Networks Based Powered Ankle Prosthesis Control Algorıthms For Sta	Amputation is the surgic
Epileptic seizure prediction using machine learning and deep learning methods	Epilepsy is one of the m
Effects of ultrasound exposure to cells cultured on nitinol in a PDMS substrate	Cardiovascular disease
Radiomics analysis of 3D computed tomography images for predicting the ISUP grade of clear cell renal cell carcino	Renal cell carcinoma (R
Emotion recognition of EEG data using tensor logistic regression	Emotion recognition is a
3D-printing technique for fabrication of biodegradable PDLLA tympanostomy tube and examination of biofilm formati	In this study, it is preser
The effect of titanium surface topography on biocompatibility, hemocompatibility, and bacterial behavior	Titanium and Ti alloys a
Time_Frequency Analysis of Somatosensory Potentials Evoked by vibrotactile Stimulation of the Fingertip	Tactile sensory feedbac
Similarity-Based Analysis of FDG-PET Images of Alzheimer’s Disease Patients: A method for automated diagnosis a	This study aimed to eva
Investigation of Ablation Efficiency and Temperature Distribution Profile of 1940 nm Thulium Fiber Laser on Ex Vivo	In liver surgeries, lasers
Development of Primary Keratinoxcyte Cel Culture Method on Fibrin Matrix	The use of cultured epit
Correction of Artifacts in Formalin-Fixed Paraffin- Embedded Tissue Section Images with Contrastive Unpaired Imag	Formalin-fixation and pa
Predicting kidney tumor subtype from CT images using radiomics and clinical features / Radyomik ve klinik özellikler	This study aims to evalu
Development of Polymer-Lipid Hybrid Nanoparticles for Anticancer Drug Delivery	The challenge of conve
Design of a Vibrotactile Balance Support System With A Virtual Reality Training Program	This thesis aims to desi
Optimization of a microfluidic chip design for neuroblastoma cells and their microenvironment studies / Nöroblastom	Investigating each struc
Predicting Epileptic Seizures of Pediatric Patients Using Phase-Amplitude Coupling and Deep Learning On EEG Sig	Epilepsy is one of the m
Development of a recurrent neural newtwork system for estimation of ankle power by using surface electromyograph	Estimation of ankle pow
Effects of Hamstring Lengthening Surgery on Muscle- Tendon Velocities of Patinets with Cerebral Palsy	Cerebral Palsy (CP) is a
Assessment of Effectiveness of Muscle Lengthening Surgery in Cerebral Palsy Using Musculoskeletal Modelling	Cerebral Palsy is a perr
Investigation Of Protein Corona Formation On Biodegradable Nanocarriers	Biodegradable nanocar
Spatiotemporal Graph Convolutional Neural Networks For Motor Imagery EEG Classification	Electroencephalography
Synthesis And Characterization Of Bovine Serum Albumin Based Nanocontainers For Drug Delivery Applications	Polymeric nanocontaine
Proof-Of-Principle Of Ed-DBS (Experience-Driven Deep Brain Stimulation) In The Hemiparkinson Rat Model	Parkinson's Disease (Pl
Investigating The Bacterial Adhesion Behaviour on Bone Surface Mimicked Chitosan Membranes	An extremely serious pc
Deep Learning-Based Virtual Special Staining Of H&E Stained Tissue Sections	Hematoxylin and eosin
Effect Of Ir780-Loaded Silica-Coated Gold Nanorods For Photodynamic Therapy of Cancer	Photodynamic therapy (
Generating Noin-normal Distributions for Interval Schedules: Effects on Instrumental Behavior	VI schedules are used i
Polyethylenimine-Capped Gold Nanoparticles In Nucleic Acid Delivery	RNA interference is a g
Mid-Air Haptic Sensations Produced By Ultrasound Actuators In Patients With Carpal Tunnel Syndrome	This thesis utilizes psyc
Effects Of Prior Stimulation On Tactile Evoked Epidural Field Potentials In Rat S1 Cortex	Understanding how tact
An Unsupervised And Refractoriness-Supported Algorithm Design For Real-Time Spike Sorting	Neural spike sorting alg
Intertion of Magnetic Nanoparticles With Polymersomes For Use As Multimodal Nanocarriers	Magnetic nanoparticles
Improving the quantification accuracy of Tc-99m mibi dual-phase parathyroid SPECT/CT: Amonte carlo simulation st	Quantitative parathyroic
A Novel Hybrid Scaffold For Managing Critical Size Mandibular Defect	This study provides a co
Virtual Reality-Based Advanced Life Support Serious Game	This thesis investigates

r cause of death; therefore patients with heart problems, i.e. those who had myocardial infarction are kept under medical observation. M
try systems are presented in general, with various coding systems that send different physiological signals. After that, a special Biotelem
rinciples that must be obeyed in the design and equipment selection of a coronary care unit are investigated along with the architectural
hanical to electrical transduction is a common response of nervous tissue. In gathering information from environment these tissues are
rds and standardizing organizations of biomedical devices which are very important in healthcare are investigated. The regulations of bi
al is to meet the acute health needs of the community it serves. Biomedical instrumentation maintenance programs have been establish
sis is to develop a databank of Nuclear Medicine activities in Turkey. Until recently, no databanks existed in any field in Turkey. This was
ipment Control programming Biomedical Engineering is to optimize the safety, effectiveness, efficiency and economy of diagnostic, ther
a new diagnostic imaging method in medicine, although it has been used for a long time in other fields, including biology, chemistry and
owered prostheses is a field of rehabilitation engineering that has received wide attention in the recent decades. In this thesis a historical
tic applications of infrared diode laser exposure have been known for several years. At first, there were attempts to use this new energy
nlike other medical devices, are not used in order to monitor a disordered physiological function. They are aimed to be used in training w
f cardiovascular system is reviewed by considering the arterial segment as a thin plastic tube. Combination of fluid mechanics theory of
surance is an important element of the quality assurance programs as applied in medical diagnostic imaging centers. This thesis addres
standards of radiation protection during routine examinations of Nuclear Medicine or in case of any accident that can happen are explain
res of human brain have differently localized centers, such as talk, vision and motor functions. This functional asymmetry has been studi
netic fields in fracture healing has received wide attention in the recent decades.In this thesis a historical background of the studies is giv
s the entire aspects of the High Frequency Ventilation (HFV) in three categories; HFPPF (High Frequency Positive Pressure Ventilation)
lay of organs using CT data-Implementation on an IBM PC. This thesis presents a low cost system for the three dimensional display of o
n this thesis work is designed and implemented to provide an interface between a word processor and the speech synthesizer. An eight
analysis of the human cardiovascular system in terms of arterial pressure regulation was prepared and a computer simulation running o
n this thesis work is designed and implemented to provide an interface between a computer and a TV monitor to display image informati
sis of circulatory system is studied by assuming the arterial system as a thin elastic tube. Classical Navier Stokes equations and the cor
to show the feasibility of developing a law eost system for 3D imaging of internal organs using an IBM PC. The developed software pac
romagnetic fields have received a wide attention for its accelerative effects on the healing process of fractured bones. In this thesis, thec
spital information program is written with a personal computer using the dBASE III plus program, for future use in Taksim Hospital. The u
nes a Turkish word processor and a microcomputer controlled speech synthesizer. Utilizing the system presented in this thesis, one can
rameters affecting lesion detectability in nuclear medicine imaging were investigated. Namely the effects of information density, object co
thod for extraction of single evoked brain potential (VEP) is presented. In the proposed model for VEP, it is assumed that the measured
urvey of the current expert systems applications in medical diagnosis. The emphasis is given to the accomplishments of such systems a
tem created to be used in the clinical microbiology laboratory or the identification clinically expensive alternative to fully computerized au
ns and new developments in cardiac pacing are presented. In the first chapter, the heart and specificity rate and rhythm, which are the m
e of the important parts of a hospital. Its importance is based on performing qualitative and quantitative analyses on patient's substances

with respect to conductivity differences as in Electrical Conductivity Imaging Method, is the basic concept in this research study. Current
of the increased utilization of digital imaging modalities, such as computed tomography (CT),ultrasonography and magnetic resonance i
es of the 24 district health centers of Istanbul have been investigated. In the first part, the basic duties of the Ministry of Health and the m
vestigation of stimulus evoked visual potentials (EP's) in single trial EEG recording, a method has been studied and implemented which w
nance Imaging is an imaging modality which produces cross-sectional transaxial, coronal and sagittal tomographic images to those of X-
ıc mapping system is designed for guidance in arrhythmia surgery. An instrumentation unit (amplification, isolation and filtering) is design
ned an Optical Character Recognition (DCR) system. The system has been handled in two parts. The first part is design and implementa
chemistry instrument has been realized, to quantitate substrate concentrations, and enzyme activities in human blood. The phometric tec
/ in second half of the decade, spectral analysis of the EEG revolutionized the interpretation of this laboratory tool. It would not be prophe
ased ECG system is designed and presented for the recording of ECG waveforms of patients in their living environment(at home, in offic
are important factors to be considered in engineering applications. Because of their complex nature, however these factors are not adeq
of cancellous bone was studied using specimens from human femoral heads obtained during surgery. Microphotographs of cancellous bo
ectromagnetic spectrum concerned with ophthalmology ranges from the ultraviolet portion through the visible wavelength and the near a
ocytes in vitro is increasingly recognized as an important clinical method for the alleviation of infertility. After the preliminary observations
er based instrumentation system is developed and presented for the evoked potential measurement. The study involves the design and i
composed of tightly connected simple processing elements and try to mimic the characteristics of the human brain such as massive pa
l Potential (EP) analysis software is developed, which includes data processing procedures relevant to both basic EP research and routir
ntroller based ECG monitoring system is designed and implemented, for continuously displaying the ECG waveform on an oscilloscope
ed at the building of an image processing software, to be realized on a conventional digital computer. Although special and expensive eq
lar stimulation refers to a wide collection of techniques for restoring the lost functions of the paralyzed limbs and organs by electrical stim
for the qualification of the pathogenous fungi species has been studied. The aim of this method is to be able to identify miscellaneous fu
onal dependence of mechanical properties of skin grafts of various thicknesses are investigated in two directions: longitudinal and transv
ıg now provide the surgeon, radiologist and physician the ability to create 3-D models of any part of the human body. The major area of
used method in the diagnosis of pulmonary diseases and in the analysis of respiratory sounds. The characteristics of respiratory sounds
ametric model for Evoked Potential (EP) estimation has been developed and implemented. It is assumed that pre-stimulus EEG data ca
is to simulate the mechanical properties of cardiac muscle for both contraction and relaxation phases with a computerized simulation tec
the new developments in pacemaker technology, a microprocessor controlled "External DDD pacemaker" has been designed. The goal
chniques have been proposed to reduce the digital ECG data volume for storage and transmission. These techniques are essential to a
d with the design and implementation of electronic hardware of a serial data collection system for electrical impedance tomography. The
easy to use instrument is designed to detect body fluid loss in patients undergoing haemodialysis and abdominal surgery. Electrical imp
annel instrumentation system was designed to record both maternal and fetal ECGs. Three thoracic and two abdominal signals were sa
l instrumentation and data acquisition system is developed for evoked potential measurements. The system is intended for incorporation
ed at the building of a computer interfaced CCD (Charge Coupled Device) camera, which will be part of a fluorescence ratio imaging syst
omography injects constant current (10kHz to 50kHz) into the body, using a pair of surface electrodes and measures the resulting voltag

placement or selection of a biologic substitute requires detailed knowledge of the mechanical properties of the normal ligament. Ligamer
ence and technology have greatly improved both the design and efficiency of orthopaedic implants thereby widening their use. This thesi
lpful data in the diagnosis of heart illnesses. A multichannel recorded ECG can be more helpful than one channel ECG track. The multic
the Hospital Information Systems (HIS), with special interest in the selection of the underlying technology and possible integration of HI
d with the design of an ECG-gated electronic hardware for data collection in electrical impedance tomography. The actual design uses th
as implants, in the human body, must be safe. These materials must never induce any biological rejection or disorganized growth in the
edical diagnosis of the most common lung and ENT (ear-nose-throat) diseases was developed. This system diagnoses which are tuberc
dy was to develop a system, using a PC with a soundboard, for tinnitus evaluation, and patient-specific sound generation. The system w
study of imaging the surface variations in both pigmentation and topographical aspect, including a survey of the earlier studies of relevan
own that sounds caused by the turbulent flow in partially occluded coronary arteries may be used for detecting the location of occlusions
e (CAD) is the major cause of death and this disease can be detected by an expensive, risky and invasive technique called angiography.
luid composition changes due to exposure to high altitudes is assessed by multifrequency and multisite bioimpedance analysis. For this p
tomography (E.I.T.), the boundary voltages obtained from the boundary of a cross sectional area of the object in response to injected cu
has been made to determine the quantitative characteristics of the sounds which are caused by the presence of a tumor in the bronchia
coustic Emissions are evoked in the form of intermodulation products by two pure tones with specific frequency and amplitude ratios. Th
ade of polymers, metals, ceramics, and composites. This type medical materials always contact with cells, tissues, organs and organ sy
rdings taken by non-invasive scalp electrodes from human brain (real data) are processed by three different filtering algorithms which ar
he recording techniques, analysis and the clinical applicability of electrogastrography. Electrogastrography (EGG) is referred to the non-
e was developed for Brain Electrical Activity Mapping and also for standard EEG and EP recording. The study involves design and imple
nted that the newborn period may offer uniquely favorable conditions for assessing the functional status and adaptive capacities of infant
tems are widely used for flow measurement in both medicine and industry, having the advantages of being non-invasive and comparativ
nentation system has been devised for measuring the electrical parameters, such as the electrical conductivity and the relative permittivit
te visual system provide us with many clues about the powerful mechanisms of natural vision. It is evident from physiological and psycho
head-skin and skull of a rabbit under audio stimuli was studied to see whether it is possible to reconstruct a thermal image of the stimul
f biomaterials the term biocompatibility was required to classify these materials in regard to their biological interaction. Biocompatibility ir
activity of the heart yields to the most helpful data in the diagnosis of heart diseases. ECG is the most common way of recording the ele
entricular cell model is implemented and analyzed. The contributions of ionic currents to the ventricular cell action potential are discusse
uation of aortic stenosis today is primarily performed by cardiac catheterization and echocardiography. Both, although accurate, are expe
Systems are mechanical devices that are mounted to the human skeletal system for orthopaedic purposes. Of the materials of orthopae
raphic images of different musculoskeletal parts of human body have been examined to see whether they can be used for orthopaedic a
aterials have been used for repairing damaged portions of the body, for several centuries. Although there are many successful efforts in
biphasic material consisting of a solid matrix phase (collagen fiber network and proteoglycan macromolecules) and a fluid phase (water).
ered complaint concerning the human auditory system. The tinnitus-stricken patient is generally characterized with hearing loss and suffe
imaging, several proposed reconstruction algorithms have employed the concept of a sensitivity matrix, which can be used to relate the

500.000 dialysis patients and average cost of $30,000 US of one patient per year makes dialysis therapy one of the most expensive one
derived from the Greek "steros", meaning three dimensional, and "tactos", meaning ordered or arranged. Stereotactic neurosurgery cons
ng the kinetic energies of therapeutical electron beams is described. The theoretical basis of the mass angular scattering power method
missions from a radio transmitter varies.at «an audihlfuate, it causes interference on sensitive electronic equipment. Hearing aid user co
as a composite material, being made up of a collagen fiber matrix stiffened by hydroxylapatite crystals. Changes in the mechanical envi
e package, to be used in correlation dimension (D2) computation of human electroencephalograms (EEG), is developed. The main algor
s to develop an information system that will meet the requirements of the Primary Health Care System in Turkey. Coordination problems
asking System called TMEX is developed. The system is composed of an IBM compatible PC with a Sound Blaster compatible 16 bit sou
od of blood purification for patients with acute and chronic renal failure. There is perhaps nothing more crucial to the successful treatmer
t system developed for general clinical use in nephrology, as an educational tool for training medical students and as a file manager for t
P300 wave in single trials of an auditory oddball paradigm, an artificial neural network based on backpropagation error learning algorithm
em called Penile Tumescence Monitor (PTM) has been developed for monitoring and studying nocturnal penile tumescence, related to th
ant factors in magnetic resonance imaging (MRI) is the tissue discrimination quality. Among other parameters of MRI, it is known that the
graphy (EMG) signals of different musculo-skeletal motions are important features that can be used for applications like, control of prosth
s areas of science and technology have shown their action on various interventions of orthopaedics and have altered them for the best a
was to determine the fluid loss of the dialysis patients during dialysis session by bioelectrical impedance analysis. A bioelectrical imped
einforced PMMA composites were studied as dental materials with improved wear resistance and hence increased life time. The powders
c impedance of human blood for a hematocrit range extending from 3 1 % to 50 %, is measured over the frequency range up 100 kHz to
dent (CVA) leading to a structural and physiologic change in the central nervous system causing dysfunction is called stroke. A stroke res
lely used in many areas of modern technological society, but they are of particular importance in medicine, where early and accurate diag
teristics of 402 kinesthetic cells included in the 2142 single cell recordings obtained from globus pallidus interna of 90 Parkinson's disea
een developed as a teaching aid and as a pre- classification tool for patients with cardiological, vascular, respiratory and hematological p
einforced PMMA composites have been used as candidates for implant materials for load bearing applications. There have been two kind
ing common that orthopaedic patients are having implant materials in their body. On the other hand MRI with its potential diagnostic valu
rneal layers with 6.4 e.v.(electron volt) photon energy, the ArF (Argon Fluoride) excimer laser corrects for myopia, hyperopia and astigm
Mass (FFM) and %fat were assessed by multi-site, multi- frequency bioelectrical impedance analysis (BIA) on 6 volunteering divers who t
nulation (FES) refers to a wide collection of techniques for restoring the lost functions of the paralysed limbs and organs by electrical stir
aids for blind, Text-To-Speech systems are the most advantageous, regarding their high information processing speed and easiness of
re and software system that cover amplifying biological signals, digitizing and converting them to graphical data on the computer was dev
n tried to find out whether correlation dimension (D2) computation may be a sufficient way of analyzing EEG records of patients with mer
omography (EIT) uses impedance measurements to ? determine the electrical properties of materials. This technique has a wide applica
merges in many areas as well as in medicine. Different methodologies of artificial intelligence have been employed to set up such system
s in magnetic resonance images is essential especially for a radiologist to be able to identify a disease, tumors, or any tissue. In any mag
treated with a surgical method called total laryngectomy whether it is diagnosed in the later stage of the disease. In this procedure, the la

nts in audiology often use the presentation of some sort of a stimulus to the ear. Most techniques utilize insert earphones for this purpose
the perception of annoying and almost never-ending sounds, like wind, water flow, hissing, wheezing, roaring, whistling, bell sounds or n
ogical criteria has become far more important after the clinicians started to blame it for some pathological conditions. There is a bunch of
G) has long been in the service of clinicians for diagnosis of neuromuscular diseases. Needle EMG is the most widely used option, as it is
çalışmalar için, digital görüntüleme tekniklerinin kullanımı yönünde büyük bir gelişme kaydedildi. Bu gelişme, Digital Anjiografi ve Bilgisay
agement system, specifically developed for the pathology department to organize workflow, to improve data security and data accuracy,
the most common malignancies in women and a rare malignancy in men. It has been widely reported that breast cancer has become the
der in which clusters of nerve cells or neurons in the brain sometimes signal abnormally. Most of the people with epilepsy can live norma
es, we all have been in a position to go to a hospital to be diagnosed by a doctor. Most commonly, the doctor, for a more solid diagnosis,
lectromagnetic (EM) devices has caused growing concern about possible health hazards produced by EM radiation. So it is imperative to
is developed to store and analyze large amount of data managed in the departments of anesthesiology and reanimation, at the hospital
ony and other mobile personal communication services are the fastest growing field in the telecommunication world. But there is an unce
his thesis is to apply the continuous quality improvement and critical pathways techniques to the area of obstetrics in health care. Variou
ıent of pseudoarthrosis and may also be considered for distraction osteogenesis (callus lengthening) operations. In this study, effects of
an be diagnosed by analyzing respiratory sounds produced during breathing. Main tool for physicians to analyze respiratory sounds is ste
on of the superficial layer of the superior colliculus evokes prolonged bursts of excitatory postsynaptic currents in premotor cells of the su
lental patient must adapt to the curvature of the teeth and allow the impression material to be in appropriate thickness everywhere. Gene
tudy is to observe the motion characteristics of the tongue muscles during speech. Real-time Cine MRI (16 frames/s) with tagging has be
r interface is developed to deform atlas overlays, so as to make them fit to a certain case, namely a particular patient's anatomy for pre-c
cially toluene) affect the membrane lipids of neurons and glial cells because of their liposolubility; causing central nervous system dysfun
s to assess the field of action of Ultraviolet Radiation (UVR) on airborne particles and microorganisms in the operating theater. The study
Computerized Tomography (CT) in the late 70's and Magnetic Resonance Imaging (MRI) at the beginning of 80's, three dimensional ima
orms, has been proved effective for the elimination of bacteria and other microorganisms from liquid mediums, solutions and solid materi
ques exist for the analysis of cardiac tagged MR images, a rapid screening tool do not yet exits. Our proposed technique tries to perform
ar Joint (TMJ) is the joint attaching the lower jaw, called the mandible, to the temporal bone. Temporomandibular joints move each time w
first used in 1950's has gained popularity today due to its advantages in the clinical setting. Air abrasion device can open cavities on toot
se characterized by low bone mass and deterioration of bone tissue. Dual-energy X-ray absorptiometer (DXA) is used to diagnose and in
ns for diagnosing diseases have been widely used in various areas of medicine in the last decades and similar studies have been perfor
approach to dictation of Turkish radiological sound with relatively acceptable accuracy is presented. The work includes collection of train
coordinated activity of thorax, larynx and the supraglottic cavities; abnormalities in this activity inevitably results in a change of perceived
to develop an information system that will meet the requirements of the Healthcare System in Turkey. Coordination problems among he
suffer considerable disability from seizures and result ing injuries, the social isolation attached to having seizures, and from side effects
endovascular treatment method for cerebral aneurysms that is an abnormal bulge or blister of an artery wall in the brain. In this treatmen
ory sounds is often carried out on digitized signals once they have been sampled and stored as blocks of data. However, the advance of

ography (SEMG) signal allows a good assessment of neuromuscular activity as a noninvasive tool. While muscle fatigue is a complex mu
(VGE) may occur during the brain and neck surgery where the operative site is higher than the heart. Medium where the pressure chang
niques used for neurosurgical tumor ablations; lasers are the newest and most effective of all to apply on brain tissue. This thesis study a
are thermal effects of 980-nm diode laser and monopolar electrocoagulator on rat brain. 980-nm diode laser was investigated for neuros
sonators have recently utilized in quantum optics, laser science, spectroscopy, and optoelectronics and attracted increasing interest due
ı hedef dokunun optik özellikleri hakkında bilgiye ihtiyaç duymaktadır. Bu çalışmada optik özellikleri ölçmek amacıyla bir deney düzeneği
ısed in orthopedics and dentistry is a ceramic material with a very good biocompatibility. There are two ways of HAp production; producti
gical imaging, functional imaging captures informa tion about the functioning for living tissues, such as blood circulation and oxygen meta
nedical specialty that uses painless, safe, and cost- effective techniques to image the body and treat disease. In nuclear medicine, very s
(ERPs), which reflect fundamental cognitive operations, are generated by the parallel and/or the sequential processing of different neur
strain-adaptive bone remodeling are the two most common phenomena that are associated with the long-term post-operative problems o
brain function called functional neuroimaging techniques aim to localize and quantify physiologic changes during mental activity. Functior
etic characteristics of pneumatic McKibben artificial muscle were investigated to develop an alternative trajectory control method to tradi
powered, easy to use, compact and wearable (portable) instrument called P-VOCAD has been designed and realized for diagnosing func
ed tyrosine kinase receptor for Nerve Growth Factor (NGF). NGF-stimulated TrkA activates a mitogenic response in non-neuronal cells. H
imaging method, the dipole source localization of brain electrical activity has a much higher temporal resolution when compared with the
to carry information is an integral part of modem life and there are many different types of radio transmitter in the environment These inc
scopy (VLS) is a stroboscopic imaging technique that allows observations of standstill and slow motion images of vibrating vocal folds. It
living organisms is the ability to multiply its genetic material by replication. In the case of single-celled organisms such as bacterium, mul
chine settings such as kVp and mA are lower, but the patient exposure times are longer compared to conventional radiology. The immed
ntroduced to distinguish normal and abnormal myocardium. Tag features are introduced into the image by intensity modulation of the ob
l events taking place in neuronal cells has drawn special attention by functional imaging groups due to the need to understand how neur
ns of two experimental studies. The purpose of the first study was to investigate the effect of low energy laser on the proliferation of fibro
nance Imaging (MRI) is an excellent technique for functional evaluation of heart because of its completely noninvasive nature and ability
ned an important place in microcavity resonators by their morphology dependent resonances (MDR's) and high quality factors. Numerous
injection to the medial septum (MS) on the spontaneous electroencephalographs (EEGs) and auditory evoked potentials (AEPs) recorde
dial motion is important in the assessment of heart diseases. Current techniques for functional myocardial imaging include radionuclide a
spitals are designed to improve human health. It is often ignored that the electromagnetic field generated by medical equipment can end
ı disorder caused by damage to the brain, especially affecting ability to control movement and posture. It is the most common cause of s
ography (DSA) is being widely used in hospitals and outpatient clinics. For the (DSA) system as well as all the other radiographic systems
e a synchronization problem between an MR-scanner and the stimulation program used in functional brain studies as in fMRI. Synchroniz
ration, algorithm choice and its application on images depend on the localization and where and how images are acquired. In this study,
a LabVIEW design of a multi-parameter data acquisition system to be used at the Institute's Biomedical Device Laboratory for educationa
s a highly scattering medium in near infrared region, a feasible model is needed in order to understand the propagation of light. The mos

ı and spread of tumors are dependent on angiogenesis and that rapid exponential growth of tumors does not begin until a new blood ves
ve database of basic gait parameters, kinematics and kinetic patterns for 181 normal subjects with the ages of four, five, seven, eight, nir
aluation methods involve use of various optical imaging techniques including Functional Near-Infrared Spectroscopy (fNIRS) as well as S
gastrointestinal system where the food coming from the mouth through the esophagus is mixed by the rhythmic contractions of the smo
naging (MRI) of the kidney has a great potential because the functional parameters, which can be investigated obtained noninvasively ar
to measure the thresholds of the Non-Pacinian I (NP I) channel which is believed to be mediated by rapidly-adapting (RA) fibers. Thresh
rain offers the capability to investigate cerebral blood circulation and oxygen metabolism, as well as activity levels of the nervous system
aluable information about the function of the heart; expert clinicians can diagnose many heart disorders by listening to these sounds. On
itive activity in the brain is one of the major problems in neuroscience. Current techniques for neuro-imaging are based on fMRI, PET, a
nd low cost personal and emergency monitoring telemedicine solutions are the main concerns of this project. The patients who have hea
of measurements play a very important role in health-care regardless of the field which may be therapy, diagnosis or life support. Medica
cular pain syndrome affecting nearly 12 percent of world's population. Migraine decreases the life quality and work efficiency of patients c
were to test the reliability of Cancer Scanner system whether it can detect the optical alteration of tissue dependent on temperature and
ding with 980 nm laser system which is first-time in the literature, was performed. Effects of 980-nm diode laser on tissue welding are no
r surgical operations is coronary artery by-pass grafting (CABG) operation, since coronary arterial disease is one of the leading causes c
based on the radiological examination of the left hand and wrist is a procedure frequently performed to evaluate the growth of pediatric p
was to develop a cost-effective, portable and user-friendly respiratory monitor that gives the opportunity to observe pressure, flow and vo
s irradiating near infrared light (800-980-nm) have a wide range of applications in many branches of medicine due to the developments ir
as to estimate optical properties of native and coagulated lamb brain tissues at three different temperatures (45ºC, 60ºC, 80ºC) by mean
se characterized by low bone mass and micro-architectural degradation of bone tissue, leading to enhanced bone fragility and a conseq
op an unsupervised tissue differentiation technique for contrast breast MRI using widely accepted clustering algorithms. For image acqu
copy (NIRS) is an optical method for the measurement of tissue O2 consumption and delivery. In the past couple of years, NIRS has bec
ant integral part of human existence is sleep. It has been thought that sleep has a recovery function for brain. This importance opens a n
n be a useful adjunct to physical examination and mammography for the detection and characterization of breast tumors, especially for p
ammography (MRM), accepted by for use as a supplemental tool to mammography in 1991, provides detailed information about very sm
ctile thresholds of children (ages between 8 and 11) were measured at several frequencies, and compared to the vibrotactile thresholds
phy (DOT) and near-infrared spectroscopy (NIRS) are techniques that suffer from an uncertainty of photon migration path length which is
echanism of the sensorineural retina provides our visual system with a mean to sharpen the boundary between different luminances. Cor
e and peripheral neural disorders affect the central nervous system and cause various nervous and muscular disabilities. One of these d
to investigate the effects of the repetitive stimulus on the retinotopic functional magnetic resonance imaging results obtained. Screen pro
new generation LED light source based Light Curing Unit can cure a new generation Dental Restoration Composite in a deep cavity situ
gate wavelet transform based ECG compression techniques and compare them with conventional approaches. A major issue addressed
on is a highly coordinated and energy demanding task of daily activities. The primary objective of this study was to investigate the effects
(ERPs) reflect perceptual and cognitive processes and therefore provide an electrophysiological window onto brain function during cogr

lue to trauma or in the events that require to remove eye globe from the orbit, spherically shaped orbital implants were used in order to fi
tion is coded and processed is one of the frequently researched subjects in cognitive science. For a rather long time there has been a ha
hysics experiment, which is designed to test the effect of active and passive touch on tactile temporal processing, is presented. Active a
sfunction is suggested to have an important effect for the cognitive impairments observed in Alzheimer's disease. In some patients, hippo
pectrum 980 nm diode laser is very important because of the local absorption peak around 980 nm. This work was carried out to find the
iffusion Tensor Imaging is a recent imaging modality which has shown promise as a non-invasive tool for estimating the orientation and
design and implementation of a software system for distributed emergency diagnosis to be used in conjunction with ambulatory electroc
tion (AMI or MI) occurs when a part of the heart muscle dies because of sudden total interruption of blood flow to that area. It is a life-thr
d to investigate the consequences of hippocampal denervation in terms of irreversible medial septal area lesioning on behavioral despai
n analysis systems are distinctive in last decades. Those systems became very important tools for diagnosis of various gait disorders. Th
ield of exercise physiology, it is an imperative to exercise a warm up and stretching routine before training. The reasoning is closely asso
esis is to improve the resolution of a continuous detector by using an algorithm other than Anger algorithm. Our aim is to obtain a reason
cially for small animal PET systems requires taking into account three main factors: these are high energy and spatial resolution and pric
ceptor afferent units with fast conducting axons in the sciatic nerve innervating the hind foot were isolated for electrophysiological recor
s see similar images and there is no perceptual competition. The input from the eyes are compatible and the images are fused. On the o
pproach Directives, the CE Marking is obligatory for medical products: the manufacturer affixes this marking in order to be allowed to sel
y (EEG), a non-invasive neuroimaging method measuring neural activity without any metabolic bias, has millisecond scale temporal reso
of the major factors affecting the image quality in X-ray imaging and should be annually measured and calibrated if necessary. In this the
oject is to design a wireless ECG monitoring system which enables the tracking of ambulatory patients' cardiac activities on a central serv
edical treatments rely on high intensity ultrasound or shock waves. The externally generated pressure waves transfer a large amount of e
tructural role in cell membrane as a sphingolipid, has essential roles in apoptosis, cell growth and differentiation. In this study, the effect
nuclear medicine breast imaging technique, is a supplemental breast exam that is used in patients to investigate a breast abnormality. It i
ses to mechanical stimuli were measured to study the sense of touch. By using a forward-masking procedure on eight subjects, magnitu
n investigating the cerebrovascular dynamics of migraine by analyzing data acquired from healthy and migraine subjects with a noninvas
y (EEG) is a common technique for studying and understanding the functioning of the brain. In addition, functional Magnetic Resonance
ctivity disorder (ADHD) is a very common neurodevelopmental disorder. Approximately 30% 60% of individuals diagnosed with ADHD in
esis is to improve the resolution and linearity of a continuous detector for positron emission mammography (PEM) imaging, by using an a
tween mechanical and physiological conditions of skeletal muscle determines the force generated by that muscle. The aim of this study
great importance in many areas. Receiving tactile information from a slave-robot is a necessary component of tele-detection with tactile
g services, blood banks and transfusion services, follow a standard operation procedure during preparation and the quality control of blo
on cell cultures provided that low level lasers have various biostimulatory effects on several tissues. Biostimulation of tissues and cells is
orm of phonation and articulation in human beings. Both phonation and articulation implies the acoustic formation, which is the result of
mperature measurement is critical in order to know the photothermal effect of laser irradiation on tissue. Depending on the duration and
equipment management system is developed for online access to the medical assets in a healthcare facility to control, plan, schedule a

to investigate the effects of different stimulation frequencies on post stimulus undershoot of the blood oxygen level dependent functional
hanics of Pacinian corpuscle (PC) is a fundamental necessity in order to contribute to tactile sense studies. It is proposed that the geome
ological disorder and typically persists for a life. Investigation of the cerebral hemodynamics of schizophrenic patients with a rapid, non-i
tional near-infrared spectroscopy (fNIRS) has been introduced as a new neuroimaging modality with which to conduct functional brain st
aging (MRI) of cerebral perfusion is used as a complementary procedure in diagnosis of cerebral lesions. In this work, cerebral perfusion
surgery (e.g., aponeurotomy), partial fasciotomy is widely applied; however, is seen as a preliminary step to the main operation only. It is
lely used in image-guided interventions especially in catheter-based interventions. X-ray fluoroscopy provides high temporal and spacial
surgical technique used to lengthen spastic and/or short muscles. In previous studies, the biomechanical effects of AT were studied bot
apies play a significant role in several medical procedures, a major one being tumor ablation. Regardless of the temperature range and t
erimental paradigms for functional neuroimaging studies of working memory (WM) has been the n-back task, in which subjects were ask
s in medical imaging is an essential subject because it helps the radiologists to be able to identify diseases, tumors and follow the degen
re produced as a result of interactions between and within the simple vocal system and the complex signal coming from the nervous syst
ving is nowadays practiced as a competitive sports discipline, its underlying physiological mechanisms enabling divers to tolerate great d
present study is to assess the effects of the number of interventions on the acute effects of aponeurotomy by using finite element mode
ural and lifelong process which may lead to the neurological diseases as dementia and Alzheimer's. Investigation of the aging process o
h the perception of first-order motion. The processing of visual information in the human brain is accomplished by numerous visual strea
safety of reuse of high flux polyamide hollow membranes used for hemodialysis, it is imperative to perform several experiments on both
y clinical researches in the open literature, biocompatibility and performance of reprocessed hemodialysis membranes are not still well d
easurement of biological systems is gaining wide popularity in determining the pathological and physiological status of biological tissues
to develop an internet based dashboard system for monitoring health key performance indicators (KPI) to improve medical services qual
stigated the effect of a 10-min light pulse either early or late in the dark phase of the L/D cycle on behavioral despair in male Wistar rats.
ment, which shows that there is a relationship between theoretical force-velocity characteristics of a muscle fiber and experimental peak
s using optical methods more and more every day, among optical methods Nearinfrared Spectroscopy is one of the most appealing techn
s to investigate the potential of infrared lasers for cornea welding in order to seal corneal cuts done during cataract surgery. Infrared lase
cation was developed to simulate optical and thermal response of laser irradiated tissue by using Monte Carlo and Finite Difference Met
onship between the hemodynamic changes and cognitive activity (known as the neurovascular coupling) provides a basis of the underlyi
ed method for bone age assessment is based on a single x-ray of the hand and wrist. The bones in the x-ray are compared to the bones
talking, walking, singing and so on, in response to changes in internal or environmental states. The ability to respond to a specific dimens
CG) is very useful noninvasive imaging method of the heart's electrical activity. Based on these recordings, a wide range or heart conditi
ays expected when the stress exposed to body is enough for initiation and propagation of the crack. Due to social lives, increase of life ex
y state human visual evoked potentials that are generated in response to visual stimulation and its corresponding hemodynamic respons
mixed-signal based systems in conjunction with the various benefits provided by digital techniques have significantly increased the need
MR images, especially into three main tissue types: CSF, GM and WM, is an essential task in clinical applications as it aids surgical plann
upon vibrotactile stimuli is still not completely understood. Previously, the responses of single units from mechanoreceptive afferents and

rrection of eyelid problems due to facial palsy was studied. Lagophthalmos is the condition of the paralyzed eyelids' to close totally. It ma
ue which is used to measure where the hearing deficit stems from in aural way and what the degree of severity of deficit is. This thesis w
tigate serotonin as the neurotransmitter between Merkel cell and its nerve ending, through changes in SA-I response to exogenically app
esis is to evaluate the diagnostic loss in compressed medical images using computer simulation. Compressing medical images is a neces
endinous structures play a major role in force transmission: epimuscular myofascial force transmission. Such force transmission was sho
alized branch of dentistry aiming to produce a healthy, functional bite, creating greater resistance to disease and improving personal app
ever-changing environment, it is vital for each institution to be prepared to face and consequently conquer technological future advancer
coveries, clinically reliable dental implants were preceded by a serendipitous observation, rather than a logical chain of experiments, lead
quality assessments are usually necessary for diagnostic and experimental MRI studies. The main motivation of this study is to develop a
inimum soft tissue damage and minimum operator intervention by employing automated, precise electro mechanical devices. In this proj
union of a bone fracture poses a major burden both to the individual and society. This experimental study investigated the hypothesis tha
mellitus is associated with gastrointestinal symptoms and disturbances of gastrointestinal motility. Diabetic patients with a history of micr
and insecticide, which causes behavioral, biochemical, and neuropathologic changes in rats that closely resembles PD symptoms in hu
resonance imaging (MRI) applications, reporting and postprocessing tools have been designed. The software tools developed consist o
s to study the use of neural networks for radiological bone age assessment from hand and wrist x-ray images is done. Carpal bones hav
apies are very common in today's healthcare. Many procedures which require invasive surgery, with its associated long recovery times ar
ugh a number of physiological changes in daily life. Some of these changes can be observed with optical imaging methods at near infrar
face (BCI), sometimes called a Brain Machine Interface (BMI) is a communication device between the brain and an external device, usua
be considered a behavioral addiction similar to gambling. In order to test this hypothesis, the activity of the autonomic nervous system w
tific and medical purposes is defined as how well the desired information can be extracted from the image thus the principal research go
oves rapidly, diagnosis and treatment devices that directly affect human health increase in number and variety. Unfortunately, these devi
agnosis of Alzheimer's disease (AD) would permit earlier intervention, which conceivably could delay progression of this dementing disor
l membrane component which plays important roles in carrying the message about the fate of cell such as apoptosis, differentiation or ce
present study was to take an initial step in explaining the effects of Botulinum toxin treatment used fort he muscle pathologies such as s
wn that activity at high lengths, leads at least, to major decreases of active force at low lengths, whereas forces at high length are hardly
e specific goal was to evaluate the mechanical effects of manual therapy quantitatively. Physiotherapists primarily aim for increasing the
oy of blood samples with Acid Citrate Dextrose, Ethylene Diamine Tetra-acetic Acid, Lithium Heparin and Sodium Citrate anticoagulants a
operating rooms is of prime importance because particles that carry microbiological contamination generate serious risks during surgica
osis, therapy and surgery is a widely used option as evidenced by many articles in the literature. In conventional systems standard two-d
ant stages in digital radiology process is the transfer of the image to the observer, as the variations in light and color from a physical disp
scular disease which is associated with increased muscle tone, stiffness and impaired motor control and consequently functional limitatio
gy, treatment is routinely done under X-Ray Fluoroscopy (XF) using special catheters or needles. XF is a fast modality and allows one to
s one of the most common problem in our lives, it is also the most compensable disability. In general, hearing impairment can be fixed by
ation (EVLA) has become a popular minimally invasive alternative to stripping in the treatment of saphenous vein reflux. Several wavelen

els used space-invariant attenuation functions. But this assumption is not enough to construct realistic population models, because mech
that, human brain has a small-world behavior which is reflected by locally and globally efficient processing. To investigate this behavior
se of functional magnetic resonance imaging (fMRI), mapping the brain signals to a statistically valid map is crucial. The common appro
rome is a weakly deduced phenomenon thet develops as a complication of asmall stroke in the thalamus. Because this syndrome results
ocess of imagining an object rotated into a different orientation in space. This well-known visual phenomenon may be used to understan
elopments in X-ray imaging, digital systems started to replace analog systems. Principle advantages of digital X-ray imaging are; it has lo
as to determine the proper laser parameters for 1940-nm Thulium Fiber Laser for ceramic bracket removing. In order to assess the effec
a method of reconstructing any number of to- mographic planes, by using a set of limited angle projections, acquired as the X-ray sourc
to determine the optimum laser parameters to provide the maximum bonding strength with reference to conventional bonding technique
oscillatory components may relate with temporal modulation of information processing of a sensory activation in a local electrical field ar
anical impedance of rat glabrous skin was measured at two different locations: the digit and the sole in the hind paw, at two frequencies:
he operating mechanism of the nervous system and to and new treatments for its diseases have been growing at an increased pace. T
(FC) refers to statistical relations of activations of dis- tinct neuronal populations without any reference to causal or anatomic connections
d potentials are electrical signals generated by the ner- vous system in response to a stimulus. Auditory evoked potentials (AEPs) are ge
on has two bone fractures during a lifetime. The heal- ing time depends on the age, the health of the patient, the type and the severity of
imaging technology has been rapidly developed and become much popular for scientific researches. Its safe, non-invasive and portable
ole diagnostic technique and an essential part of physical examination used frequently in kidney an urinary tract diseases. Urine reagent
's measure the expression levels for thousands of genes. These measurements provide us with a “snapshot” of transcription levels in the
g modalities, optical methods using non-ionizing ra- diation became popular due to safety concerns. However, pure optical methods have
vironment of cartilage tissue was mimicked by adjusting the surface topography, stiffness and chemistry of polydimethylsiloxane (PDMS)
ace topography was mimicked by a using biodegradable polymer. In the first part, bone surface topography was mimicked and transferre
f adverse outcomes on patients due to the storage lesions of blood products. Measuring quality of the blood prior to usage can minimize
ated active touch by measuring absolute and masked thresholds in the Pacinian channel during cyclic self-movement. Based on previous
elengths are being used in oral surgery for making inci- sions and excisions with minimal bleeding and pain. Thulium fibre laser, with its 1
is a promising and safe antimicrobial treatment that includes in a chemical agent, called a photosensitizer, which is activated by appropr
become widely dependent on information technology and internet; as it moves from paper to electronic records. Despite the benefits of
s caused by a disease or a trauma can be treated by vari- ety of sources such as; autograft, allograft and xenograft. Providing the cells fr
more recently emerging field of Synthetic Biology, mathematical modeling has become an indispensable component of research. As cor
span is expanding, neurodegenerative diseases, such as Alzheimer's disease (AD), pose a great threat upon the quality of life. In such
ny tasks have been used to determine the cognitive ability and/or flexibility of individuals to have any prior knowledge about the psycho-
surface was modified with newly synthesized self- assembled monolayers to mimic a biocompatible micro-environment for the cells and to
l spectroscopy (fNIRS) is a developing non-invasive technique used for measurement of oxygenation in the adult and newborn human br
dversely affected joint in children with cerebral palsy (CP). The aim is to assess wheter a correlation can be found between femoral antev
dy was to investigate the effectiveness of 1940-nm Thulium fiber laser for liver surgery. This was done by determining the ablation efficie

excitable tissues has been widely used for diagnosing and treating neurological and muscular disorders. Electrical stimulation is also use
used by physiotherapists e.g., to reduce adhesions in the fascia. Leading to disorganization of connective tissue after trauma, underlying
tanding of the mechanical interactions between skeletal muscles within their integral system of connective tissues requires simultaneous
ant points in the whole process in digital radiology is to have high quality displays due to deteriorate any information received data acquis
ood health and well-being of humans and it lasts for one third of a person's lifetime on average. Therefore, sleep disorders must be taker
is illness and patient survival rate depends on early and accurate detection. CAD systems are commonly used for detection and characte
gin of tumor locations is an important issue in terms of diagnosis and treatment of patients with glioma. The aim of this study was to dete
is has a crucial importance on lung nodule studies, since lung cancer is the leading cause of cancer related death for both men and wom
no acid (conjugated histidine, leucine, serine, tryptophan) conjugated self- assembled molecules (SAMs) were synthesized and used to r
ed network organization were examined, and the association between network integration at rest and cognitive performance was investig
estigation is to guide to select the most su-cient infrared laser for the neurosurgery. For this reason, 1940-nm thulium fiber laser, 1470- r
an be produced in neuroprotheses by functional electrical stimulation of the sensory fibers in the peripheral nerves. The stimulation ampl
proliferation and morphology of osteoblast cells on functionalized RGO/Ti surface were investigated. Firstly, amino-functionalization with
naging (MRI) is a promising candidate against X-Ray fluoroscopy for interventional cardiovascular procedures due to its ionizing radiation
sis (CAD) is one of the most important topic in recentyears since the systems are able to provide a second reliable opinion to physicians
ve tasks consistently identify a Multiple Demand (MD) network in frontal and parietal brain regions. Its activity is closely linked to executiv
aging (MRI) offers excellent soft tissue contrast and radiation free imaging. Conventional guidewires employ long metallic materials for v
g microscopy (CLSM) is a developing optical imaging device enabling non- invasive examination of live biological tissues with laser light i
nt is a common symptom of Parkinson’s disease (PD). Objective imaging biomarkers are required for the diagnosis of PD with mild cogn
D) patients could be categorized as PD with cognitively normal (PD-CN), PD with mild cognitive impairment (PD-MCI), and PD with deme
ace roughness, topography and stiffness as well as the chemical and/or biochemical components of the surfaces; might affect the cell-su
degradable polymeric nanofiber scaffolds for a potential effort to repair injured nerve cells attracts great interest in nerve tissue engineer
fabrication and characterization of sharkskin mimicked polymeric membranes were investigated with the aim of achieving membranes w
n and characterization of neat alginate and alginate/graphene oxide (GO) composite 3D porous scaffolds were investigated in order to ac
vironment of healthy corneal endothelium was prepared by mimicking the stiffness and chemistry of underlying layer of endothelium, and
engineering applications are promising to heal defected bone tissue. Direct interaction of cell and biomaterial surface occurs and surfac
ophoresis (PFGE) is a very important molecular researchand diagnostic technique, used for the separation of very large DNA molecules.
naging (MRI) is a potential candidate for interventional cardiovascular procedures since it is ionizing radiation-free and thus safe for huma
skeletal muscle has been previously shown to be determined by the interactions between contractile elements of the muscle and the ext
ital to apply the proper treatment for prostate cancer. Conventional prostate biopsy methods have limited accuracy for the diagnosis. Ma
(PEEK) exhibits distinct properties which are favorable in designing a novel load-bearing implant for bone reconstruction. It overcomes t
ral summation theory, increasing stimulus duration causes a decrease in detection psychophysical threshold. Unlike previous psychophy
e introduce a self-assembly method to produce L-arginine (L-Arg)/Hydroxyapatite (HA) coatings. Firstly, Ti6Al4V substrates were etched
CHF) is a major cause of death for which only known non-palliative treatment is Heart Transplantation (HTx). Due to donor shortage, only

val of a part or all of a limb due to disease, accident or trauma and it has a large incidence rate. For example, in the United States, an av
D) results in structural changes on white matter (WM) of the brain, creating cognitive deficits in addition to motor problems generally end
inum toxin type A (BTX) injection causes a force decrease in the injected muscle. However, if BTX has effects beyond the injected musc
of attentional mechanisms within the tactile modality is not fully known. We have recently studied muscarinic receptor-mediated response
amic Inactivation (aPDI) has recently gained interest as an alternative modality to fight pathogenic entities. Its effect can also be further e
etry (FPI) fiber optic sensors with low error ratio and high sensitivity can provide reliable feedback to optimize needle insertion for MRIgui
aining (BFR) has become a popular training method recently. Both athletic and non-athletic populations prefer BFR over high-intensity tra
at it is easy to collect data, and it disregards external factors like pregnancy or stress. For estimates with prediction horizons (PH) with 1
two functional dimensions: discriminative and affective. Discriminative properties of tactile stimuli are relayed via myelinated and fast co
acid (ZOL), a type of nitrogen containing bisphos- phonate, was loaded on graphene oxide (GO) particles to increase the particle size o
icrofluidics and BioMEMS have led to miniaturized high-performance droplet-based sensors. These sensors must be reliable, simple, fas
the most abundant excitatory cell type in cortex and hippocampus. The canonical topology of these glutamatergic neurons consists of a
provides efficient and safe dissipation of ground reaction forces (GRF) is crucial during landing motions. Parkour practitioners (traceurs)
d cognitive impairment (PD-MCI), which is one of the major risk factors for dementia, is present in 26.7\% of PD patients. In this study, w
levelopment in technology, diagnostics methods that are used in radiology have started to change with visual display terminals; however
dance spectroscopy (BIS) and lumbar and hip dual energy x-ray absorptiometry (DXA) measurements were conducted simultaneously or
sent study was to investigate the efficiency of photobiomodulation (PBM) with respect to different energy and power densities, as well as
er (NF) surface properties is critical to achieve an adequate cell response. Here, the impact of conjugation of biomimetic aspartic (ASP) a
re frequently experienced problems. Nuclear medicine has a significant role in determining treatment. The study tried to find out the visib
emission computed tomography/computed tomography (SPECT/CT) systems have been in use to enhance the detection of sentinel lym
se (PAD) is a serious health problem that includes occlusive arterial syndrome. Critical limb ischemia (CLI) which is the most severe form
s (CVDs) are major health problems and the leading cause of death around the world. Cardiac arrhythmias form a significant portion of C
aging of breast provides valuable information about breast tissue composition. A common breast MRI protocol may include dynamic con
phosphate (CPCs) and calcium sulfate-based cement was introduced into carboxymethyl cellulose (CMC)-gelatin (Gel) and citric acid (C
ments (CPCs) are promising osteoconductive bone substitutes for bone grafting. In this study, new bone cements were prepared by mixir
(PDT) is a cancer treatment in which an injected or applied photosensitizing agent is activated by light of a specific wavelength which cau
ystem was developed to include the inventory of medical equipment, the failure management process, the maintenance and repair perioc
can be done with mobile technology in more practical, flexible times, in desired environments. The transformation of smart phones and t
his study was to use a variety of biophysical assays such as electrophysiological recordings, flourescent microscopy and in-silico tools to
s of basal forebrain stimulation on the distirbution of α4 and α7 type nicotinic acetylcholine receptors were studied in three different brain
) is a childhood-onset developmental psychiatric disor- der. Pediatric patients are diagnosed with TS if they show multiple motor tics and
cancer type among women is the breast cancer. Ad vanced clinical treatment applications are currently present, and the effectiveness c
rgy-intensive and harmful effects (emissions) to the environment during manufacturing are the leading industries.In this study, the amour
can be defined as all biophysical, biochemical, biomechanical properties that affect cell behaviour and cell fate. These factors include sur

objects used as stand-ins for human tissues to guarantee that algorithms and methods for monitoring the human body are functioning pr
pe of frequent and lethal cancer the brain. Recent World Health Organization (WHO) criteria has included genetic mutations in glioma cl
D) is a neurodegenerative disorder especially affecting the elderly population which is growing worldwide. In this study, surface-based mo
ve proven to be very beneficial in many fields such as chemical and biomedical sciences. The reduced sample volume, among many oth
ctrodes (FINE) reshape the nerve, which results in an oval geometry and causes the fascicles to be arranged on an axis. In this way, the
he second most common neurodegenerative disease both in Turkey and in the world. The studies show the effects of inflammatory mec
comparing bacterial colonization of laser etched and acid etched enamel in bonding orthodontic ceramic brackets and also to develop a r
(PDT) is an application based on the killing of unwanted cells with photochemical reactions based on photosensitizer induced by light at a
e widely seen in the world and they are not seriously handled until they start affecting the patient's life very badly. Respiration motion cor
ent renal malignancy and ccRCC is the most common subtype of RCC. It is reported that the prognosis has a strong association with VH

appendage (LAA) occlusion is a viable nonpharmalogical alternative for prevention of thromboembolic stroke in patients with atrial fibrilla
resistance against knee extension is a characteristic pathological condition in cerebral palsy (CP). Active and passive forces of spastic kn
he Gazebo simulation software to develop a virtual environment for interactions of objects to perform psychophysical tasks to distinguish
aging modality for analyzing anatomical structures. X-ray images from different angles are used for reconstruction in tomosynthesis. In c
s of detecting lung cancer, using CT scans to predict the malignancy level of pulmonary nodules will be complicated process for radiologi
ical breathing simulator is developed, constructed, tested and calibrated for the experimental use of medical devices such as nasal drug
s to increase biocompatibility of titanium (Ti) surfaces, which is an extensively used biomaterial in medicine, by an easy and timesaving s
ces (BCI) are systems that facilitate people to use a computer, to control an electromechanical or a neuroprosthetic device without using
strong healing impact on postmenopausal osteoporosis and also apoptotic effect on breast cancer cells (MCF-7). Zoledronic Acid (ZOL)
on cortical implants are promising to provide partial sensorimotor function in severe neurological conditions such as spinal cord injuries
used by inward collapse of the rib cage, which may cause the patient's internal organs to become flush and fail to function. In 1986, Don
ulinum Toxin Type-A (BTX-A) has been the gold standard for spasticity management in children with Cerebral Palsy. The treatment aims
sease that is comprised
ealth problem and the main cause of death worldwide. Targeted drug delivery is a possible replacement for classical cancer treatment, v
c hands aim to resemble the functions and appearance of human hands. The increasing interest in their design arises from their importa
tic hernia (CDH) is one of the congenital anomalies leading to neonatal deaths and postnatal respiratory disorders. When the abdominal
g of polymeric materials by biomimetic coating to enhance their bone tissue healing capability is a very successful technique used in bor
ear polymer that found in brown algae; also, it is biocompatible, biodegradable, and non-toxic. These properties make alginate favorable
g enormously in various domains including society, economics, industry, security, transportation, and medicine. The high dimensional str
genetic mutations, including isocitrate dehydrogenase (IDH) and telomerase reverse transcriptase (TERT), provides information on over
affect everyone in our modern world, with consequences ranging from poor work and school performance to decreased family functionin
most important material for biomedical technologies. Both its biological and mechanical properties enable collagen to be used in many fie
oses an innovative acquisition system for line scanning X-ray detectors. Current linear X-ray detectors are either offered as fixed size or
elopments in the field of artificial intelligence yield implications for motion supportive devices. Powered ankle prostheses (PAP) employ ac
ly discrete event-driven vibrotactile feedback using machine learning algorithms in real time. Previously acquired tactile and propriocepti

cal removal of a limb due to various reasons, e.g trauma. Prosthesis is a device which is a replacement for the missing part of the limb. A
ıost common neurological diseases in the world which negatively affects the daily life of a patient. Predicting epileptic seizures is of great
s are one of the most serious health problems in the world. Especially arterial closure, atherosclerosis, as a common, and vital disease h
CC) constitutes %85 to %90 of all kidney malignancies. In 2020, 430,000 new cases were diagnosed and 179,000 of them lost their live
a research area gaining momentum in the last three decades with a strong impact on our daily life. One of the most widely used methods
ıted that the new fabrication method for biodegradable PDLLA tympanostomy tube by examining its degradation and swelling behavior, I
ıre widely used in several biomedical applications including cardiovascular stents, shoulder, hip replacement and dentistry. Ti and its allo
k has become an essential topic for neural engineering to model advanced neuroprostheses providing artificial sensations. For this purp
ıluate 18-Fluorodeoxyglucose positron emission tomog- raphy (18F-FDG-PET) images of the brain for the computer-aided characterizati
s with different wavelengths are used to make incisions and excisions with minimal bleeding and pain. The purpose of this study is to exa
helial grafts in major burn cases is a promising alter- native. Keratinocyte cells have the ability to proliferate and form an epithelial layer v
araffin-embedding (FFPE) is a specimen preparation and preservation technique that has been used in histology and pathology since the
uate the performance of machine learning methods in predicting the subtype (clear-cell vs. non-clear-cell) of kidney tumors using clinical
ntional cancer treatment is the side effects caused by the chemotherapeutic drugs. To prevent these side effects, nanocarrier systems ca
gn a vibrotactile feedback(VTF) system to help balance rehabilitation with virtual reality (VR) training. First, the training program was buil
tural part of a neuron is crucial for clarifying the com plex working mechanism of the nervous system. Isolation of axons from their cell b
ıost prevalent neurological disorders in the world. It is estimated that between four and six children out of every thousand suffer from epil
ver can be used in identification of gait abnormalities and establishing timings of net power generation in powered prosthetic devices. Cu
a permanent movement disorder seen in early childhood, consisting of muscle spasticity and/or contracture, and difficulty in walking due
manent movement disorder that manifests itself at early childhood, as poor coordination, and gait difficulty due to muscle spasticity and/o
rier systems are significant tools for drug delivery systems since they enable prolonging the therapeutic effect of the chemotherapeutic d
y (EEG) has various applications in medicine, neuroscience, and neural engineering. It records the electrical activity of the brain tissues
ers which consist of both a core and a polymeric membrane have an important role for drug delivery applications. They can carry active c
D) is a neurodegenerative disease characterized by the progressive loss of dopamine (DA) neurons in the substantia nigra (SN). The los
ost-op consequence of orthopedic replacement surgery is infection, which is currently challenging to treat with antibiotics. According to da
(H&E) staining, which is standardly applied to tissues in histopathological diagnosis, is an incredible tissue staining method that reveals t
(PDT) is a new approach to cancer treatment that activates a photosensitizer (PS), a light-sensitive chemical, with a specific wavelength
n instrumental conditioning to obtain a relatively constant response rate. In VI schedules, a reward is delivered following an operant resp
ene editing tool applicable in cancer therapy. Nucleic acid delivery into the cells is challenging due to nucleic acid instability, insufficient c
hophysical experiments with mid-air haptic ultrasound actuators to assess carpal tunnel syndrome (CTS) patients' tactile sensation. 19 fe
ile sensation is processed in the somatosensory cortex is crucial for the development of neuroprostheses that can provide a realistic ser
orithms have been used to group the action potentials in electrophysiological signals according to their characteristics to use them in neu
(MNPs) are extensively used targets for drugs to help with early detection and the treatment of disease. However, drug targeting with MI
I SPECT imaging is a technique used to assess primary hyperparathyroidism that may have potential in the identification and differentiat
omprehensive approach to managing segmental mandibular defects. The patient's computed tomography images were used to design a
the development and learning outcome of an immersive virtual reality (VR) serious game designed to improve the training of medical pro

ost commonly used method for such observations is the Holter method, which is a 24 hour continuous recording of the electrocardiogram. Tl
netry system is designed, to demonstrate how different methods are employed to solve problems, and the implementation of different blocks
steps which could be used in the establishment of such a unit. Information is given about the bedside monitors, central console monitors an
specialized to respond in a fashion like mechanical to electrical transducer. However, it has been demonstrated that this phenomena is relate
omedical devices in U.S.A, Canada and Europe countries are described briefly. In Turkey, T.S.E (Turkish Standards Institute) which is the or
ed to help hospitals meet these needs through the effective use of technology. These programs can be provided by both outside and in-hosp
because the available technology was insufficient to establish such databanks. As a result, obtaining specific information about a subject in
apeutic and support equipment used for patient care. In this study, the concept of the Inventory Control, a subprogram of the Equipment Cor
biochemistry. Magnetic Resonance Imaging or shortly MRI is based on the different behaviors of various atomic nuclei in the human body. A
l perspective of the studies in the field is given. The physiological properties of muscles are reviewed. The linear models, algorithms for ident
form in the most diverse pathological situations, acute or chronic, local or systemic, degenerative or inflammatory and in an almost infinite va
ork to gain control over any physiological variable which may have no direct relation with the symptoms of the illness. This thesis reviews the
elasticity are applied to the pulsating flow of blood thorough arteries. The flow is assumed to be laminar and axially symmetric. Classical Nav
sses the problem of optimizing image quality in Turkey with respect to X-ray film management procedures. First a sensitometric study has be
ed The precautions in safe handling of radioisotopes and methods of use of radioactive sources and as well as their storage and transportati
ied since the 19th century in order to understand which part of the brain is controlling which part of the body. Split brain patients are used in
en. The structure of bone is described at different techniques that are used in this field are explained. Design considerations of the magnetic
, HFJV (High Frequency Jet Ventilation), HFO (High Frequency Oscillation). These categories will be, separately, investigated in terms of the
rgans using an IBM microcomputer. First existing 3D display techniques and their application in medicine are given. Then the particular algo
bit microprocessor is thought to be suitable for the application for a number of reasons including the ability to easily interface to most current
n an IBM PC was developed using the Turbo Pascal programming language. The simulation is especially designed to use as an educational
on and if possible process the information. The information is displayed using raster scan technique and forming the image as a 256x256 do
ntinuity equation are used to evaluate the analytical solution of the pulsating flow of blood through arteries. Using the polynomial approximatio
kage can display 256 x 256 CT/NMR slice data in a 3-D form. User interaction is assured by a menu driven system. The system is meant to
ory and design considerations of electromagnetic fields are discussed. A pulsed low-frequency electromagnetic noise field (PEMF) generator
use of the program in the hospital beyond the scope of this study, however a suggestion is made for requirements of a personal computer ba
write documents in Turkish using the word processor and listen to what is written using the speech synthesizer. Research has been conduct
ontrast, film/chemistry gamma were analyzed using the ROC technique. Verification of the experimental results consistent with Whitehead's
signal is the summation of a spontaneous part, corresponding to background EEG activity and an evoked part. Both parts are modeled as a
s aid to the medical practitioner, rather than as achievements of the computer scientist. For this purpose, following a brief introduction of ger
tomated systems which are replacing conventional methods for the identification of bacteria in the modern microbiology laboratory. Such sys
nost important points in considering the ECG for determining whether cardiac pacing is required, are studied. In the second chapter, pulse ge
s. The results of these analyses assist the doctors in the diagnosis of diseases. For this reason, the tests must be performed as accurately a

: injection / voltage sensing technique is utilized where the current is supplied from a constant current source and the potential evoked by the
maging (MRI), over a third of the images produced in a typical radiology department are currently in digital form, and this percentage is stea
ıajor principles of the Socialization of Health Services Law No. 224 were studied. In the second part, the provincial structure of the Ministry o
vill separate the measured activity into its evoked and spontaneous parts. A compound state-space model trying to incorporate the observab
-Ray computed tomography (CT), and also, it is non-ionizing, non-invasive and without known risk. Certain atomic nuclei that have an odd nu
ıed and combined with a computer based data acquisition system to obtain electro physiologic data from epicardium. The system is capable
ation of an optical page scanner and the second is development of character recognition software. The implemented scanner can digitize the
:hnique senses color changes in the sample solution proportionally to the concentration. The prototype photometer is designed as a monoch
ecy to foresee that Fourier Transform Analysis (FFTA, as called by the American Medical Association -AMA-) would be among the classical t
es, etc.). The system offers computer facilities to ECG recording. The ECG system designed is inexpensive, easy to use, safe and can be cc
ıuately known in dental applications and therefore not followed by dentists and dental equipment manufacturers. Exact ergonomical applicati
one specimens were taken and they were examined whether if there was any relation between microstructure and mechanical properties. Mi
nd far infrared areas. In addition to the tunable dye laser, which can produce wavelengths room the ultraviolet into the infrared portion of the
; of Edward et al. In 1969. the studies on this subject were intensified and following the first successful birth in 1978. this technique has bee a
implementation of a bipolar, high CMRR, low noise, low cost isolated biopotential amplifier suitable for the EEG and EP applications. Data ac
rallelism, fault tolerance and learning from the experience, are called artificial neural networks. In this thesis artificial neural networks were e
ne clinical applications. The program allows analysis of data in time and frequency domains by means of parametric and nonparametric signa
screen. The ECG signal from surface electrodes, attached to the chest of the patient, is amplified and ground isolated, with the amplification
uipment is usually required for such an image processing system, such equipment is avoided as much as possible, except the data acquisitic
ıulation of the excitable tissues. It is a relatively new and developing subject and little is known about its life improving effects in the medical
ungi types by sampling and analyzing their odor characteristics with the E.O.C., an instrument sensitive to odor molecules. The first point of tl
verse according to Langer's lines of cleavability. The specimens were tested and evaluated in terms of mechanical properties such as tensile,
clinical applications of 3-D imaging has been in Radiation Therapy Planning, Computer Assisted Surgery, Brain Analysis and Orthopaedics. T
; show differences in pathological cases from normal cases. The object of this study is, to observe the characteristics of respiratory sounds ir
n be modeled by an implicit nonlinear autoregressive (NAR) model. The NAR model has been realized using a multilayered neural network h
:hnique. Mechanical representation is needed in order to describe the mechanical properties of cardiac muscle. The mechanical model introc
was to guide the doctors for choosing the wright pacemaker type for implantation. This device will also be helpful in electrophysiological stuc
wide variety of applications ranging from diagnostic to ambulatory ECGs. Due to the diverse procedures that have been employed, choosing
actual design uses the current injection -voltage measurement technique with 16 electrodes. The electrodes are multiplexed through 4 multi
edances of the arm, the leg and the trunk are measured separately from the right side of the body at the frequency of 50 kHz (1 mA rms) be
mpled and stored by a data acquisition software program using the macADIOS system. Before recording the data in the hospital, some expe
into systems for improving safety of anesthesia delivery and requires an IBM compatible PC. The study involves the design and implementa
:em, measuring cytostolic free Ca++ concentration. As in the current systems, for ratio imaging of rapidly responding cells, the incompatibility
es between all other peripheral adjacent electrodes, arranged in pairs, to estimate body’s internal resistivity distribution. For reconstructing th

nts and tendons have been frequently experimented for this purpose. In light of distinguishing their histological characteristics which were ob
is aims both to determine the use of different types of implants in Turkey and to analyze the causes of postoperative deformations in the imp
hannel ECG monitor discussed in this thesis enables the physiologist to monitor the three basic lead derivations simultaneously. In addition s
S to a nationwide Health Information System. An integrated HIS approach through database administration has been adopted and an applica
ıe current injection-voltage measurement technique with 16 electrodes. The electrodes are addressed through four analog multiplexers. A 50
tissues in which they are immersed. In this study the safety (the biocompatibility) of Boride and Nitride coated 316 L stainless steels is teste
ulosis, pneumonia, lung cancer, chronic obstructive pulmonary system diseases (COPD), acute sinusitis, chronic otitis media, chronic tonsilli
vas tested on 98 patients who presented with severe tinnitus in the otolaryngologic clinic of the Pendik State Hospital during the first five mon
ıt topics. Pigmentation and topographic view of skin varies with different types of tissues. Tumors and stains have different colour pigmentati
and is valuable for an early, non-invasive diagnosis of coronary arteriosclerosis. Unfortunately, it is difficult to isolate and analyze these soun
. Therefore, many research work has been done to find a non-invasive technique for detecting coronary occlusion before they become seriou
purpose a portable Bioimpedance Analyzer that is capable of measuring the resistance and the reactance of the tissues and body parts at fiv
ırrents are used to reconstruct the internal impedance distribution for visualization. The overall performance is determined by both the hardw
l tree. For this purpose, a special instrumentation system consisting of a PC equipped with an A/D converter, a water-sealed spirometer and
e distortion product at 2F1-F2 is of higher amplitude and detected in almost all normally hearing ears. Both amplitudes and latencies of Disto
stems. Before wide applications, they should be tested in terms of toxicity, carcinogenity, antigenity, and mutagenity. In other words, they mu
e developed for the detection of ABR buried in EEG data. These methods are the Adaptive Filtering (AF) algorithm and Averaging & Adaptiv
invasive technique of recording electrical activity of the stomach. In this study, a software algorithm is developed to analyze the raw EGG da
mentation of 32 bipolar, high CMRR, low noise and low cost biopotential amplifiers for EEG and EP measurements, and an analog to digital
ts. Thus in this thesis, a test has been developed for monitoring the motility and for evaluating the sleep patterns of normal and asphyxiated
ely simple and therefore inexpensive. However, these systems have nor been applied to capillary blood flow measurement because the velo
ty, of bone and isolated skeletal muscle over the frequency range of 1 kHz to 1 MHz Bone specimens with and without bone marrow are test
ological studies, that human visual system also employs selective perception, besides being massively parallel. This work develops and prese
us induced thermal activity. An index showing the differences between the random thermal fluctuations and thermal changes evoked by the
ı extracorporeal blood treatments like haemodialysis is especially important, because all the pathways to bioincompatability become active, v
ectrical data of the heart. The vectorcardiogram technique is another way of recording the electrical activity of the heart. At present time, the
d in their control cases and total block cases in both the time domain and phase planes. The significance of the ventricular action potential re
ensive and invasive techniques. However it may be possible to assess the severity of the aortic stances based on the murmur produced by th
dic implants the stainless steels, especially the 316 L type have superseded the others and are utilized predominantly as implant devices. In
pplications. In some of the examinations, comparisons of the ultrasonographic images with X-Ray films have also been performed. Due to th
using these implant materials due to the recent scientific and technological improvements, we are not in a perfect position yet. The aims of th
The articular cartilage having such a physiological structure, generates little friction even when subjected to high loading at very slow moven
ers from an almost never-ending sound in his ears. These whistle, wind, water fowl, water flow, hissing, etc.-like sounds are always subjectiv
magnitude of a boundary voltage change of a 2D object to the change in conductivity inside the object that has given rise to it. This thesis is

es among other types of medical therapies. Urea Kinetic Modeling (UKM) is increasingly recognized as the most efficient way for quantitating
sists of the introduction of instruments or direction of radiation beams into a small, well defined but invisible target in the human body with the
is analysed. The kinetic energy of therapeutical electron beams is determined from the Gaussian spread of a pencil beam. The pencil beam
mplaints caused by this kind of interference were increased by the introduction of digital mobile phones in recent years. Interference reveals
ronment after prosthesis insertion may influence bone remodeling. The high modulus prosthesis may alter the functional strain environment i
ithm calculating the D2 is based on the Grassberger Procaccia (G-P) theorem. Rigorous algorithms are developed to speed up the process
among health professionals treating the same patient can occur due to the lack of proper communication methods and technologies. Previo
und card, a record player, a specially developed software for tinnitus masking and headphones. The system first performs an audiometry test
nt of chronic hemodialysis patients than the dialysis fluid (dialysate) itself, which is made up mostly of treated water mixed with an aqueous co
facilitating medical history taking and record keeping tasks. It has been written in Microsoft Visual BasicT, Version 4.0 and runs under the Mi
is implemented. After training, the neural network is expected to classify the responses into two categories according to the applied rare (tar
he sympathetica! and parasympathetical nerve activities in the REM and non-REM phases. The system is non-invasive and consists of a spe
e longitudinal- relaxation time, Ti, is also tissue specific and in addition dependent on temperature. Hence, a new method for discriminating tis
neses in medicine or control of robot arms in industry. So as to use EMG signals for such applications, the signal is to be modeled in order to
t an unprecedented rate. After the 1960's advances have been established in material science, production and operative techniques to bring
ance analyzer with a 1mA (50 kHz) constant current source is constructed for the measurements. By using the analyzer on "four probe" (tetra
s were pressed after blending by heating at 200C° in moulds. Two groups of samples; with silane and without silane were studied. Density m
o 1 MHz. An instrumentation system is designed for performing true four probe impedance measurements on human blood samples, in the ra
sults in hemiplegia or paralysis of one side of the body, limbs, and sometimes the face and oral structures that are contralateral to the hemisp
gnosis can decrease morbidity and mortality rates of disease. How the quality of diagnostic information and decisions should be measured in
se patients who had undergone pallidotomy by microelectrode recording method was analyzed statistically. Pallidal kinesthetic cells were exa
problems. The system is capable of making reasonable diagnosis concerning related diseases and is equipped with a facility to supply the us
ds of samples; with silane and without silane each containing weight percent of 5, 10, 15, 20% alumina in-polymer. Because of the roughness
ue can not be utilised well on the patients with metal implants due to potential hazardous interaction of metal and magnetic field. Normally, if a
atism. Central photoablations flatten the cornea thus correcting for myopia while peripheral photoablations correct for hyperopia by steepenir
took part in an altitude diving research program on Mountain Kaçkar (3412 m). Impedances were measured from 10 different sites which are
nulation of the excitable tissues. The aim of this study is to design a microprocessor controlled single channel functional electrical stimulator
storage and usage. The function of a Text-To-Speech (TTS) Synthesizer is automatic production of speech from a given text. The method u
veloped so that it is used in physiology laboratories. The system has four channels. Because each channel is unique and each channel gain
ntal disorders. For this purpose, the records of one patient with epilepsy, seven patients with schizophrenia and five patients with Alzheimer's
tion i from medical diagnosis to geophysical exploration. One of the promising applications for ? this technique is in the medical imaging field
ns. In this study an intelligent diagnostic system is build that accepts Turkish medical narrative texts as inputs and generates a decision base
gnetic resonance image there exists many different types of tissues each with characteristic Ti and T2 decay times and proton densities. If th
arynx and the vocal cords are removed. Consequently, these patients are loosing their voice and their ability of speech production. The aim o

e. The studies have shown that the stimulus that is formed in the ear canal is different than the originally generated signal, due to the modific
nore complex time-varying sounds in the absence of an external sound source. It is one of the most common complaints in the practice of ot
f study showing that the blood viscosity is apparently relevant with erythrocyte aggregation, endothelial damage, intimal thickening, coronary
s the only quantitative EMG available currently. In needle EMG, it is difficult to attain the needed patient cooperation, due to the discomfort, p
yarlı Tomografi sistemlerinin tanıtımı ile başladı ve hala konvensiyonel filmlerle işlenmesine rağmen, büyük miktarlarda, digital verinin elde ec
to facilitate pathological data management and report management. It saves digitized images of pathological specimens in JPEG format in i
e second leading cause of cancer death among women. Over a lifetime, one in nine women risk contracting breast cancer. However, women
al lives, as long as they take anticonvulsant medication. However, 20-30% of patients with epilepsy will continue to have recurrent seizures d
requests from the patient several examinations to be conducted. Considering that the laboratories of state hospitals and university hospitals
o be able to quantify both the absorption of electromagnetic energy in the human body and the resulting thermal effect. In this study, the spe
s in cooperation with the Anesthesiology and Reanimation Department at Marmara University, Medical School. Anesthesiology and reanimat
ertainty about the health effects of RF that mobile phones emit on human beings. In this thesis, we studied the near field electromagnetic rad
ıs studies and indicators show that obstetrics is one of the main areas that need to be addressed urgently in Turkey. Birth defects are quite h
ESWT on the callus were studied. On 20 male, ten-week-old white Wistar rats transverse femoral osteotomies were performed at mid-diaph
ethoscope. Developing a system capable of acquiring and displaying respiratory sounds and performing real-time analysis and classification
ubjacent intermediate layer. In this study, we demonstrated that there is intrinsic circuitry linking the superficial and intermediate gray layers c
erally, the impression trays are selected by the practitioner via testing them in the mouth. The present study was conducted to develop an au
een used for imaging during the utterance of four short syllables, "sha", "gha", "ta" and "ba." Four- dimensional parametric motion field analy
operational target determination for neurosurgeries. The integration of CT images with atlas overlays is the first achievement. Secondly, the A
ction and neurological impairments in humans and in animals exposed to these solvents. Cognitive, cerebellar and pyramidal damage, perip
y is conducted in the operating theater, with all measurements performed during the weekends and repeated for 1 1 weeks. Following the ge
ges of the human body were generated in terms of slices of 2-D images. The availability of 3-D images gives researchers a better morpholo
als used in industrial, sanitary, and biomedical fields, such as reactors, pipes, filters, medical devices, biomaterials, etc. The effectiveness of
n rapid classification to diagnose the abnormalities in human left ventricle and the final aim of this study is to identify the investigated myocar
ve chew, talk and swallow. Temporomandibular disorder (TMD) is a collective term that embraces a number of clinical conditions that involve
h tissue by throwing high speed aluminum oxide particles under high pressure through a small duct on the application probe thereby pushing
n the follow-up of the osteoporosis. In osteoporosis the density and quality of bone are reduced, leading to weakness of the skeleton and inc
med to parameterize and increase the reliability of lung-sound based diagnosis by using computational techniques. In this study, two types o
ing and testing data, methods developed for data preparation, interpretation of experimental results and discussion of critical factors affectin
voice quality which may be classified by the public as "unnatural" or even "funny" that may lead to serious problems in one's social life. The
ealth professionals treating the same patient can occur due to the lack of proper communication methods and technologies. Previous work ha
s of medical and other therapies. An automatic system that detects/predicts seizure onsets would allow patients or people near them to take a
t method, coils that fill the space of the aneurysm to exclude it from blood circulation must detach from catheter to remain within the bulge of
digital signal processing technology and the availability of high speed microprocessors specially designed for digital signal processing have

ultifaceted phenomenon, in sedentary subjects it is characterized by changes of spectral parameters. If these criteria are also valid for athlete
ges significantly like diving, aviation and space missions also promote VGE. For this reason, early detection of VGE is very crucial. The Dopp
ims to compare the after-effects of two different surgical tools, namely, the established electrosurgical unit and relatively novel surgical 980-n
surgery because of a local peak in absorption spectra of water around this wavelength. The ablation and coagulations created in Wistar rat b
to their unique optical properties. Microspheres possess high quality factor (Q-factor) optical morphology dependent resonances, and have r
tasarlanmış ve oluşturulmuştur. Bu deney düzeneği kullanılarak koyun beyin, karaciğer ve kalbinin 632.8-nm deki optik özellikleri laboratuva
on from the natural bone and tooth or, production from an inorganic synthesis method. In this study, HAp is obtained by NaOH degradation o
abolism, cerebral nervous system, and changes in cromophore concentration. In recent years, progress in PET and MRI technologies has m
small amounts of radioactive materials or radiopharmaceuticals are used to diagnose and treat diseases. The radiopharmaceuticals that are a
al groups in the brain. In time domain representation of ERPs, temporally overlapping processes are hidden and they cannot be distinguishe
f cemented total hip replacement. These phenomena are related to the stress levels in the cement layer and in the cortical bone, respectivel
nal Near Infrared Spectroscopy (fNIRS) is one of the neuroimaging techniques based on measuring events, which are associated with hemo
tional PID (Proportional-Integral-Derivative) controller avoiding feedback delays. Fur thermore motion trajectory is intended to be payload inc
ctional voice disorders such as vocal misuse and abuse. These disorders can lead to vocal cord injury, development of edema, nodules, poly
However, this combination stimulates differentiation in cells of neuronal lineage. Activation of the NGF- stimulated TrkA pathway is not suffici
func tional magnetic Resonance (fMRI) or Positron Emmision Tomography (PET) Imaging. It gives a direct image of the electrical events oc
clude the broadcast transmitters used for radio and television, the radio equipment used by the emergency services, mobile telephones and t
is a valuable tool for studying vocal fold pathology, for evaluating the degrees of infiltration caused by cancerous lesions, in identifying effec
tiplication of the organism is closely linked to nutrient availability. For multi-celled organisms, proliferation of the individual cell must be integr
iate availability of images in digital fluoroscopy increases the tendency to take more images for better diagnostic quality. The purpose of this
ject magnetization before the actual imaging using specific saturation pulses. When the volume is imaged after a certain time delay; the cha
ovascular coupling is affected during health and disease. Despite striking advances in functional brain imaging, the cellular and molecular m
oblast cells at skin tissue culture. 670-nm 1.9 mW (4.937 mW/cm2) diode laser was used for the irradiation over skin tissue samples. Low en
to acquire images with high soft tissue contrast. In tins thesis work first a Matlab toolbox (DicomBrowser) is developed for reading, sorting, c
s potential applications have been proposed by using microspheres MDR's including microlasers, optical channel filters, and ultrafine sensing
ed from cornu Ammonis 1 (CA1) pyramidal cell layer of the rat hippocampus was investigated. Colchicine, by binding to tubulins, dissociates
ngiography, echocardiography, computed tomography, and magnetic resonance imaging (MRI). The most advanced technique for detailed n
anger the health of the technicians, patients, and also the other medical devices. In addition to this, physicians use equipments that generate
evere physical disability in childhood. Rehabilitation of CP children involves the application of different therapeutic modalities. These treatme
s performance evaluation involves three main components; the selection of parameters relevant to securing satisfactory clinical results, the c
zation is important for investigation of activation in the auditory, visual and frontal cortex without interference from the scanner's noise. To syn
a linear algorithm; Iterative Close Point and an elastic method;Thin-Plate Splines are used to register volumes obtained from different senso
al purposes. The design of the Virtual Instrument is completed in LabVIEW. LabVIEW is a graphical development environment produced by
st general model for light propagation in tissue is the diffusion approximation which is now used in many medical applications. In this thesis, w

ssel forms from the existing bones brought new research areas and potential therapeutic opportunities to the researchers. This new blood for
ne, sixteen, seventeen, eighteen and twenty is reported. Means, standard deviations and ranges were calculated for 15 parameters in basic g
Surface Electromyography (sEMG), exhaustive exercise protocols and biochemical investigation procedures. In this study, it is aimed to asse
oth muscles, with acid and other gastric secretions. The control of motility of the stomach is performed by neuronal and hormonal factors tha
e multiple: glomerular filtration, tubular concentration and transit, blood volume and perfusion, diffusion and oxygenation. These require eithe
olds of the NP I channel were measured using a two-interval forced choice paradigm, a technique independent of the subject's criterion. The
. In recent years, technological progress in biophotonics has led to the development of functional near infrared spectroscopy system (fNIRS)
e dimensional visual representation of heart sounds called phonocardiograms (PCG) are also used to facilitate the diagnosis. Although, PCG
nd ERP recordings. The highest temporal resolution, which is crucial for temporal localization of activities, is achieved by ERP, but spatial res
rt diseases, ambulances are common examples of possible emergency cases, while critical care telemetry and telemedicine personal follow-
al equipment, on the other hand, is subject to failure due to mechanical damage, user abuse, component failure, aging or some other reason
drastically, and causes billions of dollars of economical loss to countries. Therefore, accurate diagnosis and treatment of migraine is importar
to test the system on human tissues in which system can detect the cancerous lesions and examine the efficiency of this system. Cancerous
t studied before. Hence, a preliminary study was done to determine optimal parameters for further studies. 1 cm long incisions which were d
of death and the main surgical treatment modality for this disease is the CABG operation. The main complication of the CABG operation is gr
atients. In this thesis we examined studies conducted on the skeletal age analysis and we developed a computerized system for automatic b
lume waveforms as well as time based ventilation data. An electronic hardware system has been built up in order to acquire analog pressure
n the laser technology for the last 20 years. The ability of having high penetration property in soft tissues and enhancing indocyanine green (I
s of measured data which formed due to light-tissue interactions in visible and near-infrared spectral range in vitro. For dosimetry planning ar
uent increase infracture risk. Among many risk factors for osteoporosis, bone mineral density (BMD) measured by dual energy X-ray absorpt
sition standard contrast enhanced Flash MRI technique is used Benign (n=1) and 10 malignant (n=10) region containing patient that assess
come a more accepted technique for the non-invasive determination of local oxygen consumption and blood flow in human skeletal muscle. T
ew area of research about sleep disorders. Obstructive sleep apnea occurs with the absence of airflow for more than ten seconds despite co
patients with dense breast tissue, architectural distortion of the breast, breast implant or with equivocal mammography. However, one major l
all lesions that X-ray mammography and ultrasound often cannot detect. Women who are at increased risk for developing cancer, or those v
of adults (ages between 21 and 27) at 40 Hz and 250 Hz. Also, the thresholds of Non-Pacinian I (NPI) channel of children were measured a
s important for information of the tissue depth that is probed. We have investigated the hypothesis that probing depth is a function of the inci
ntrast is defined as the ratio of the difference in the luminance of two adjacent areas to the summation these luminance values. Contrast sen
isabilities is called drop foot, which prevents the patient from raising the foot at the ankle and effectively swinging the leg when walking. This
ojector system is constructed to show visual stimulus to subjects during fMRI scans. Retinotopic stimulus are applied to 5 healthy subjects, e
ation, by a single application, without adverse effects and save time both for the doctor and the patient, is investigated. An experimental setu
how to guarantee a user-specified error limit measured by the percent root mean square difference (PRD) for the reconstructed ECG signal
s of backload on the sagittal plane kinematics and kinetics of STS motion in healthy children. The secondary objectives were to determine the
nition. P300 component as well as spectral components of ERPs are highly heritable. Potential candidates for the genetic determinants of ER

ill the cavity, to protect the area from infection and to preserve the structure of orbit. In recent years, hydroxyapatite has gained wide accepta
ard debate about whether the object representation is analogue or propositional. One of the well-known experiments measuring how the spa
ınd passive touch are terms that were defined first by J.J. Gibson, and there have been many experiments done where these two were comp
ocampus and nearby structures show atrophy while other brain structures appear intact. Hence, study of neural network models which can m
irradiation e irradiated with 980 nm diode laser. Coagulations were quantified interms of diameter and depth measurements. Laser beam wa
quantity of white matter tracts in vivo. It has been shown that the estimated diffusion tensors principal diffusion direction coincides with the fib
ardiography (ECG/EKG) devices. The software consists of a Digital Signal Processor (DSP) helper library for processing and conditioning th
eatening medical emergency which demands immediate activation of the emergency medical services. This thesis proposes the developmer
r and navigational learning. To that purpose medial septum / vertical diagonal band of Broca (MS/VDB) lesions were achieved electrolytically
ıey evolved so much that clinicians nowadays dare to use them in critical decisions. Thanks to advances in computer and motion capture tec
ciated with the oxygen (O2) metabolism in the blood. Warm up provides the necessary means to activate enzymatic reactions to accelerate
able resolution necessary for Positron Emission Mammography (PEM) imaging. Many research groups have been involved in developing diff
e. When examining the state-of-the-art PET detectors, it can be seen that many researchers have preferred to use continuous (monolithic),
ding in pithed frogs. Ten rapidly adapting (RA) units and fourteen slowly adapting (SA) units were differentiated from each other mainly based
other hand, binocular rivalry occurs when two eyes are presented with incompatible visual stimuli. In this condition, the perception alternates e
ll his product in the European market. CE marked devices can only be tested and controlled by accredited laboratories. It is the aim of this pr
lution, the best among available functional imaging techniques with magnetoencephalography (MEG). However, its spatial resolution is seve
esis, a kVp-meter is designed and a prototype unit was built and the performance was tested in terms of accuracy and reliability. The design i
ver. A developed software run on a server and the client devices on patients yield providing support for nearly real-time traceability of patient
energy into the body. There is evidence that in all of these treatments cavitation provides the main contribution to the desired effects. Cavitati
of C2-ceramide (10 μM) application on whole cell currents recorded by patch-clamp technique from cell body of hippocampal CA1 pyramidal
is not a primary investigative tool for breast cancer but it is used as a complementary technique in cases where conventional x-ray mammogr
de estimation was performed by activating the Non-Pacinian I tactile channel. For each subject, 40-Hz and 250-Hz absolute thresholds were
ive measurement technique, fNIRS during a breath holding task. Brain hemodynamic responses of subjects are modeled via a parametric id
Imaging (fMRI), in the recent years has been a very conventional method for neuroimaging. The most important property of the EEG, which
youth have symptoms that persist into adulthood. This neurobehavioral disorder results in significant functional impairment. It decreases the
lgorithm based on artificial neural networks. Another aim of this work is to investigate the effect of crystal thickness on the resolution and bia
was to evaluate the relationship between local oxygen consumption and local force produced during isometric contractions at varying biomec
display. Surgeons highly depend on tactile feedback in minimally invasive surgery to locate arteries and tumors hidden in tissue. Additionally
od components. The Quality Management involves identification and selection of prospective blood donors, adequate collection of blood, pre
an important issue in Tissue Engineering Applications like regeneration from stem cells. Therapeutic potential of mesenchymal stem cells (M
mechanical and aerodynamic forces. The acoustic system as a tube analogy is shaped with constrictions and regularities, which represents t
peak value of the temperature achieved, different tissue responses take place such as coagulation, vaporization, melting and carbonization.
nd manage the medical equipment preventive maintenance and calibration processes. The system consists of hospital equipment inventory

l magnetic resonance imaging signal. A fiber optic light delivery system connected to a black opaque sunglass is constructed to deliver visua
etry of PC may have impact on its mechanics. A threedimensional ovoid shape PC model was developed using the finite element method. Th
nvasive and precise technique is required to improve the prognosis and guide therapeutic interventions. Functional Near-Infrared Spectrosco
udies that require data collection from vision center or motor cortex. The main problem to get data from these regions is the presence of hair
ı and perfusion related parameters are measured in terms of arterial spin labeling (ASL) and dynamic susceptibility contrast (DSC) technique
aimed at studying the effects of partial fasciotomy on muscular mechanics on the basis of epimuscular myofascial force transmission. Befor
resolution, but it suffers from low soft tissue contrast. On the other hand, magnetic resonance imaging (MRI) offers excellent soft tissue cont
th experimentally and by finite element modeling in isolated muscle. In this study, the aim is to determine the effects of AT on mechanics of r
he heat application method of these different hyperthermia applications, they all require the solution of the following problem: Determination
ed to monitor the identity or location of a series of verbal or nonverbal stimuli and to indicate when the currently presented stimulus is the sa
erative diseases. In Magnetic Resonance Imaging (MRI) one factor that causes a problem during segmentation is the inhomogeneity in the r
tem. As a consequence of the nature of this organization, the resulting voice signal is of nonlinear nature. Moreover, in contrast to humans, i
live depths and durations are still not fully understood. Effect of consecutive maximal dry breath-holds was compared between two groups of
ling. EDL muscle of rat with extramuscular connections was modeled with aponeurotomies at three different locations (Location P,I and D); f
n the cerebral hemodynamics of subjects would lead to the prevention of neurological diseases which are the last stages of cognitive aging
ms. Each stream is specialized to process different attributes of the visual scene. It was already demonstrated that times-to-consciousness
virgin high flux polyamide membranes and used fibers left in re-use solutions. SEM and AFM studies performed on virgin and used-process
lefined. This thesis aims to fulfill the deficiency in the experimental studies performed from an engineering point of view. In line with this aim,
in research applications such as; skin hydration, dental decay, body fat content, tissue ischemia, food freshness, blood freshness and etc. Th
ity with a benchmarking framework. The study implements "patients and patient relatives' satisfaction rates" of organizations and institutions
Independent groups of rats (n=8 each) maintained on a 12L/12D cycle (lights on at 06:00 h) received a 10-min light pulse (either 900 or 135
torqueangular velocity characteristics of quadriceps muscle contraction using CYBEX NORM isokinetic dynamometer, is presented. First, th
niques. Near-infrared spectroscopy is a noninvasive, safe, reliable technique. With near-infrared spectroscopy even three dimensional image
ers can be used to weld soft tissues. Water molecules and also protein molecules such as collagen absorb the infrared energy and a tempera
hods. For light propagation Monte Carlo was preferred according to its high accuracy because a number of photon packets can be launched
ng physiology of the brain energy mechanisms. The aim of this study was to investigate the differences in the hemodynamic response cause
s of a standard atlas, usually "Greulich and Pyle (G&P)". A more complex method also based on hand x-rays is the "Tanner-Whitehouse (TW
sion of a stimulus while suppressing simultaneous inappropriate or no longer required competing stimulus is known as interference effect. Th
ons can be diagnosed. These conditions may vary from minor to life threatening ones. Therefore, the scientists started to work on automatic
xpectancy, wars and accidents the number of bone fracture has increased. One of the problem during healing of the fractured bone is hemat
e are investigated via electroencephalography (EEG) and functional near infrared spectroscopy (fNIRS). The ssVEPs are investigated for th
for high resolution analog-to-digital (A/D) and digital-to- analog (D/A) converters. The (A/D) converter based on the sigma-delta modulation
ning, computer-aided neurosurgery and diagnosis. However, every single MR image contains degenerative components such as noise and F
l cortical neurons have been studied. On the other hand, there is a thorough psychophysical literature on judgements of the presence, magni

ay cause drying and irritation .In this thesis, 14 rabbits were injected with local anesthetics to induce temporary facial palsy and lagophtalmos
ork basically focused on a prototype of pure tone audiometer generating pure tone, wide and narrow band noise and warble tone. Direct Dig
olied serotonin and its antagonists. Single-unit electrophysiological responses were recorded from the dorsal cutaneous nerves of the comm
ssity due to the cost of the storage medium as well as the low bandwidth available for telemedicine procedures. Experimental studies conduc
own to cause substantial stain distributions along muscle fibers indicating serial heterogeneity of sarcomere lengths. Recent studies showed
earance. Orthodontic brackets are small attachments used in orthodontics to fasten an arch wire. One of the types that used is ceramic brac
nents in medicine. This can be accomplished by careful selection of appropriate indicators which are essential to measure the performance a
ing to the final product. In an attempt to film the microcirculation of rabbit bones, Branemark noticed that the metallic cap at the end of a fibe
a software package which enables users to remotely control distant console, communicate with physician and/or technician via on-line messa
ject the hardware components of a surgical robot are integrated for orthopedic surgery. For this purpose an existing robot arm prototype is m
t low dose irradiation can enhance fracture healing and mineralization. Standardized transverse femur fractures were created and intramedu
ovascular and macrovascular complications such as retinopathy, nephropathy, and neuropathy frequently have diabetic gastroparesis. Diabe
mans. It is known that this pesticide inhibits mitochondrial complex-I, which has an important role in cellular energy production. The object of
f DICOM structured report (DICOM SR) preparation, functional image overlay onto anatomical Standard atlases, lateralization calculations, n
e been considered for bone age assessment. While the both semi-automatically and manually marked carpal bone features are given to our
nd high cost, can now be performed more effectively, with less trauma to the patient, by using smaller incisions and specialized surgical instru
ed light range. The aim of this study is, by using functional near infrared spectroscopy (fNIRS), with a specific experimental protocol, estimati
ally a computer. The main purpose of BCI systems is repairing or assisting human motorsensory functions by asking the brain to control synth
as recorded (heart rate and skin conductance) and neuroendocrine hormone levels were measured (cortisol, dopamine, -endorphin) in 16 su
al in medical imaging is the development of data acquisition and reconstruction procedures that can produce consistently good clinical image
ces carry their own risks. Any hazardous/defective device can harm user or patience; or miss-calibrated devices can give birth to wrong diag
der. In order to accomplish this goal, reliable and specific biomarkers are needed. Unfortunately, there is no yet such a universally accepted
ell growth. Also, hippocampus is a very important region for transferring the information in central nervous system and NMDA receptors are r
pasticity on muscle mechanics via myofascial force transmission, which we believe is a major determinant. For this purpose an isolated EDL
changed. This impact on muscle force is named as length- history effects. And it has been experienced that such effects can be minimized
range of motion of restricted joints during treatment, therefore lengthening of the target muscle was highly important for this study. Simulatic
re performed in the frequency range 20Hz-1MHz, using the two probe method, at room temperature. The measurement cell is a cylindrical-li
l operations. Air quality monitoring is executed by two separate methods: Microbiological sampling and particle counting. The aim in this proj
imensional (2D) displays are used to view the images even though the images are three-dimensional (3D) reconstructed. In this study, we us
lay. The common practice in observing these visual results is to use a medical grade LCD monitor. The main problem with medical grade mo
ons. Improved understanding of spasticity requires the collection of substantial directly measured length- force characteristics of spastic mus
follow the endovascular path with contrast injections and to track devices during the interventions. On the other hand, one of the most impo
y a hearing aid which amplifies sound levels at different frequencies. A transfer function of a hearing aid determines how much the input sign
gths have been proposed; of which 810, 940 and 980- nm are the most commonly used. Ther- mal shrinkage of collagenous tissue during E

hanical properties of the skin vary along the skin [1]. In this study, it is hypothesized that response profiles of mechanoreceptive Fibers are nc
a short term/working memory experiment was designed which had manipulation and retention conditions. Our goal was to be able to explore
ach to create a statistic at each voxel is applying the frequentist or the classical statistics. However, there are many challenges raised by the
s in many different physiologinal disturbances, it iscritical tounderstand its physiological basis to diagnose and to treat it. It is important to det
d the cognitive processing by applying it to the tactile modality. Linear correlation between response times and angular orientations of the ex
wer cost (in the long run), is ready to be processed with a computer, could acquire 3D images and has better imaging quality even at low rac
tiveness of 1940-nm Thulium Fiber Laser in orthodontic ceramic bracket debonding, poly- crystalline ceramic brackets were bonded to mand
e moves around the object. The quality of the reconstructed planes is affected by structured artifacts, due to blur from planes other than the
for orthodontic braces. 1940 nm Thulium Fiber Laser wasused in pulse mode and in two different parameters for enamel etching procedure.
nd neural populations. In this study, we investigate the clustering information of alpha band brain networks during memory load task. For this
40 Hz and 250 Hz with amplitude of 61 μm. The force (F), the velocity (v) and the phase difference between them (φ) were measured to cal
o accelerate the rate of regeneration, the laser is used immediately after surgery and the protocols in literature are generally adapted to this
s. One of the problems in FC studies is, to interpret the resultant FC matrix and only few studies in the literature have focused on consistency
ener- ated in response to an acoustic stimulus. Measuring the electrical response of auditory system gives many information about the status
the fracture and can be quite long, especially if there is an infection. This is very frustrating for patients during this time, since they require h
de- sign easily integrates fNIRS to different research areas and makes it much preferable especially for brain researchers. Since fNIRS sens
strips which are widely used in urinalysis are impregnated with a number of colored reagent blocks or pads separated from each other by na
e cell. A major challenge in computational biology is to identify the gene-gene, and protein-protein interactions using such measurements, as
e severe limitations for deep tissue imaging. On the other hand, photoacoustic imaging is a promising imaging modality for in vivo tissue mor
which is a biocompatible synthetic elastomeric polymer. PDMS substrates were synthesized with different stiffness between 2.13±0.150 MPa
ed to the polydimethylsiloxane (PDMS) surface using soft lithography technique. Bone surface mimicked Polylactic acid (BSM-PLA) prepared
the transfusion related reactions. For controlling the quality of units, experts visually assess the degree of hemolysis by comparing color of b
s work we hypothesized improvement in the absolute thresholds and increase of mask- ing effciency compared to passive touch condition. An
940 nm emission, is well absorbed by water, making it a promising tool for oral soft tissue surgery. This study was conducted to investigate t
iate light energy and it results in production of reactive oxygen species (ROS) which have an important role in destroying the target cells. PD
electronic system, good quality may not be totally achieved unless its risks to security are mitigated. Working in collaboration with a 150 bed
rom these sources have many disadvantages like; diffculty of finding a suitable donor, rejection of the tissue by the body and immune system
n- plementary to the experimental studies, computer simulations are used to accelerate the hypothesis generation-validation cycle of researc
a case, the best course of action would be to detect, modify or treat the pathologies before they become too severe. Since the main cause of
logical condition or to state the level of neuropsychological disease of a person. This study presents the relations between behavioral perforr
o observe their behavior. Begin with; Si wafer is chosen as its availability is easy and well-established structures can be obtained in the surfa
rain during cognitive tasks. The oxygenation in the brain is expressed as the change in the concentrations of the major absorbers such as ox
ver- sion (FA) and knee power in children with CP. If there is a relation, the surgery to fix FA may better control an arthosis, which occurs at v
ncy of different working modes and power settings of 1940-nm Thulium fiber laser on liver tissue, in addi- tion to utilizing a real time temperat

ed to analyze and understand inherent functions of nerves and muscles. This study includes the circuit design of a current stimulator and its
muscle tissue may not function optimally and the circulation in the area gets disrupted. When there is inefficient circulation, the connective ti
quan- tification of the architecture, force and deformation during in-vivo muscle action. For that purpose, magnetic resonance imaging (MRI)
si- tion and image processing phases. Nowadays the common display device in observing medical imaging is medical grade TFT LCD monito
n care quite seriously. Obstructive sleep apnea syndrome (OSAS) is considered as one of the most common sleep disorder which is even tho
erization of nodules. The type of tumor segmentation algorithm or radiologist segmentation may a_ect the accuracy when characterizing lung
ermine and analyze a probabilistic brain tumor map reflecting tumor observation frequencies in different brain locations. T1-weighted MR ima
nen worldwide. Accurate characterization of lung nodules as malignant or benign may be difficult. CAD can assist radiologists in improving th
modify model metallic [Gold, (Au)] and inorganic [Silicon Oxide, (SiO2)] surfaces to investigate protein adsorption. In the first step, Au and Si
ated using n-back task. Global e-ciency, local efficiency and modularity were computed at rest and during n-back task. Task-related metrics
nm diode laser, 1070-nm ytterbium fiber laser and 980-nm diode laser were operated with the ex vivo lamb brain tissues. Combination of son
itude has effects on the perceptive field and the sensation modality. Increase beyond a certain threshold causes annoying sensations such a
n 3- aminopropyl phosphonic acid (APA) molecules on Ti surface was carried out. Graphene oxide flakes were immobilized on APA/Ti surfac
n free mechanism and superior soft tissue contrast. However, Interventional MRI field lacks of dedicated clinical grade MRI safe and visible d
and early diagnosis with these systems are possible. In this study we aim to construct a system for the detection of Alzheimer's disease (AD
e functions (EFs) such as attention, task switching, solving novel problems and manipulating information in the working memory. We here in
ersatility and mechanical characteristics, and are subject to RF-induced heating, therefore are inappropriate for use in MR. This work describ
n realtime. CLSM provides optical sectioning of samples. Image can get corrupted with noise of different levels due to out-of-focus light back
nitive impairment (PD-MCI). Arterial spin labeling MRI (ASL-MRI) enables the measurement of cerebral blood flow (CBF) without using contra
entia (PDD). There is a need for finding noninvasive biomarkers for the early diagnosis of PD-MCI. Proton magnetic resonance spectroscopic
rface, cell-scaffold interface characteristics and may influence cellular behavior, which are important to investigate new bioprosthesis for tiss
ing field. Poly (L-lactic acid) (PLLA) has being widely used in development of nerve fiber studies due to its biocompatibility, easily shaped pro
with enhanced biological, physicochemical and mechanical properties namely biodegradability using Chitosan as the main polymer and Graph
chieve a material suitable for wound care applications with enhanced properties such as biocompatibility, high mechanical strength, stability,
inspiring from topography of corneal endothelium. Polyacrylamide (PAAm) hydrogel cell substrates were synthesized with in the stiffness ran
e properties are able to change cellular responses. In this thesis, it was aimed to fabricate chitosan (CH) and graphene oxide (GO) based bio
It enables DNA fingerprint analysis which can differentiate small number of sequence differences in genomes belonging to the same specie
an use. However current devices suffer from mechanical and electrical constraints and face with safety issues. Interventional MRI devices in
racellular matrix. Moreover, in the level of a whole limb, interactions between muscles and non-muscular structures through connective tissu
gnetic Resonance Imaging (MRI) provides superior anatomical images of the prostate, offering precise tumor targeting which in turn increas
he adverse effects of metallic implants such as stress shielding, release of toxic ions and radiotherapy interference. PEEK has comparatively
sical studies based on the fast adaptive tracking procedure, in this thesis, psychometric functions of the Pacinian channel were measured wi
in a concentrated solution of HCl/H2SO4. ZrO2 was reactively sputtered on Ti6Al4V as an intermediate layer between HA and Ti6Al4V. Rea
y a small cohort of people can be treated. Left Ventricular Assist Devices (LVADs) are widely used to sustain patients on the HTx waiting lists

verage of 500 people loses at least one limb every day, approximately 65% of which is comprised of lower limb amputations. Since energetic
ing up with Parkinson's disease dementia (PDD). Mild cognitive impairment (MCI) is the middle stage of this cognitive decline. There is a nee
cle via diffusion and altered epimuscular myofascial force transmission (EMFT) is not known. It is hypothesized in this study that (1) BTX inje
es of vibrotactile neurons which vary according to cortical depth due to the differences in the local connectivity in the cortex. The aim of this s
enhanced by using certain inorganic salts. Here, the Potassium Iodide (KI) – mediated a PDI effect on Enterococcus faecalis using Toluidine
ded prostate biopsy. FPI based force sensing has also potential for diagnosis of prostate cancer (PCa) directly by providing data regarding n
aining (HI) due to the use of much lower loads. Although the mechanical tension of BFR is considered lower than that of HI, the metabolic str
5,30 and 60 minutes, support vector regression (SVR), decision tree regression, Gaussian process regression, k-NN regression, random for
nducting Aβ fibers while affective properties are transmitted via unmyelinated, slow- conducting C- tactile fibers. Gentle stimulation of CT- fib
of the drug-nano-carrier complex which reduces drug ltration by the kidney and conse- quently, increases drug circulation time and its tumor u
stresponding and cost-effective to be used in biomedical applications. In this work, the non-faradaic electrochemical impedimetric approach is
pyramidal-shaped soma, an apical dendrite extending vertically between layers, basal dendrites extending horizontally in the same layer and
intrinsically developed a landing technique in which they solely land on their forefoot (FFL) to counter extreme loading demands of their prac
ve classified PD-MCI, cognitively normal Parkinson's disease (PD-CN) and healthy control (HC) groups based on multimodal magnetic reson
, traditionally the ambient light should be as low as feasible in order to maintain image contrast which may have a negative effect on the amo
n 48 post - menopausal women, aged between 43 and 86 years, with no hip or arm fracture history at Department of Radiology of Istanbul U
different incubation times on fibroblast cells. Photobiomodulation (PBM) was performed with visible (VIS) laser light at a wavelength of 635 r
and glutamic acid (GLU) templated peptides with PLGA electrospun NF on osteogenic differentiation of bone marrow stromal cells (BMSCs)
bility of the small adenoma with a simulation method and the usefulness of the simulation with changing optimal instrumentation and reconstr
ph nodes SLNs with lymphoscintigraphy, recently no study has focused on optimization of acquisition and processing parameters of SPECT
induces extremity gangrene or ulcers extremity rest pain which mostly can lead to limb loss. The most common CLI criteria: (a) 30 mmHg o
CVDs which are the electrical production and conduction problems of the heart. Diagnosis and treatment of the cardiac arrhythmias can bene
trast enhanced (DCE) MRI, diffusion weighted MRI (DWI) and proton MR spectroscopic imaging (1H-MRSI). There have been several softw
CA) hydrogel for bone tissue engineering. Bone tissue is composed of organic collagen and inorganic hydroxyapatite (HA) crystals which are
ng powders of tetra calcium phosphate (TTCP), dicalcium phosphate dihydrate (DCPD) and calcium sulfate dehydrate (CSD) to polymeric so
uses a sequence of photochemical and photobiological processes resulting in irreversible selective damage to the target tissue. PDT is a pro
ds, the management and the scheduling for calibration and preventive maintenance. The software system keeps all necessary information, a
ablets into daily life leads to changes in the personal activities of individuals. With mobile health applications developed, individuals can acce
evaluate an in-vitro model based on differentiated SH-SY5Y neuroblastoma cell lines. To validate the model a demonstration study was con
areas: primary motor cortex, hindlimb somatosensory cortex and barrel field somatosensory cortex. Basal forebrain, the main source of cho
at least one vocal tic for at least one year. The tic severity is known to be reduced in most of the cases as the patient progress into adulthoc
of treatment is closely related to early diagnosis. Detectability of sentinel lymph nodes (SLNs) in breast assumes noteworthy role in order to p
nt of energy consumed and emitted to reduce emissions from cement production, clinker to be a substitute for, the availability of recyclable m
rface topography, roughness, stiffness along with the extracellular matrix (ECM) and presence of other soluble factors. Changes in the micro

operly. Thus, characterization of them prior to clinical trials plays a vital role. By that, in this thesis, we aimed to characterize breast, liver and
assification. One of these mutations, isocitrate dehydrogenase (IDH) is common in grades II and III gliomas, and has been related to metabo
orphometry analysis was performed on anatomical MR images of patients with Alzheimer's Disease (AD) and healthy control (HC) subjects u
er advantages attracts researcher's attention to this technology. Consequently the need for a precise fluid handling and flow control is greate
ey can provide selectivity at the fascicle level without penetrating the nerve. However, the constant pressure exerted on the nerve during the
hanisms and reactive oxygen species in the neurodegenerative diseases. In this respect, studying anti-inflammatory and antioxidant drugs o
method which reduces the risk of enamel demineralization and tooth decay caused by acid etching. In this project, after cleaning bovine teeth
an appropriate wavelength and the use of oxygen in the environment. Spherical gold nanoparticles (AuNPs) have been interesting because o
ntains information about the patient's health status which can be measured with non-contact measurement techniques. Non-contact continuo
IL alteration, and VHL mutation plays a role as a predictive and survival marker for ccRCC. It is also reported that PBRM1 gene has great po

ation (AF), especially for the patients who are unable to respond to oral anticoagulants. However, several device- or procedure-related compl
nee flexor muscles have been associated with the high forces which constrain the knee movement in flexed positions. However, studies quan
n between objects at differing stiffnesses. The virtual environment is composed of a probing device, a cube, and a slider. The probing device
contrast to computed tomography, X-ray tube moves around a restricted pathway for acquisition. Therefore, number of projections are used f
sts. CAD gives a second opinion to radiologists to identify lesions properly and distinguish malignant nodules at the early stage of lung cance
products, nebulizers and inhalers. The aim of the simulator is to protect users from inhaling hazardous materials, and also performance of th
surface modification procedure. For this purpose, 3-aminopropyltriethoxysilane (APTES) molecule was conjugated by 3 different amino acids
their motor nervous system. It is possible to obtain an information about the brain tissues with electrodes placed on the skull which record th
is a third generation (nitrogen contained) bisphosphonate. In this study, the effects of ZOL, Graphene Oxide (GO), and conjugation of these
and amyotrophic lateral sclerosis. One of the key components of these systems is the microelectrode array, which is used for recording brai
ald Nuss developed the most common treatment method today, also known as the Nuss technique. The Nuss technique is performed by op
s to reduce the passive resistance of force at the joint and increase the joint range of motion. However, recent studies have reported results o

which includes chemotherapy, surgery, and radiation therapy. With this treatment, single-walled carbon nanotubes (SWNTs) are widely explo
nce in many medical and engineering applications. Controlling flexion and extension of each of the 4 fingers of an anthropomorphic robotic h
organs herniate into the chest through the defect on the diaphragm, pulmonary hypoplasia and pulmonary hypertension might occur. Pulmo
e tissue engineering. Creating favorable environment for cells of the bone tissue by forming apatite layer is one of the best approaches for c
for biotechnological applications. In this thesis, 3D cell culture properties of extracted alginate from Cystoseira barbata was compared with c
ucture of these data requires new techniques that employ their underlying connectivity structure. Graph signal processing (GSP) has emerge
all survival and disease course. However, such mutations are determined from a biopsy sample which represent only the biopsied region. No
g. Thus, it is important to understand the mechanisms of motivation and devise personalized treatments. Traditionally, motivational and other
lds such as biomaterials, tissue engineering etc. The use of collagen in the production of electrospun nanofibers reveals promising results fo
requiring cabling or grid systems. The new design aims to overcome these issues by offering iSAM, a sensor module where multiple module
ctuation mechanisms that aim to support amputees during locomotion. Surface electromyography (sEMG) allows muscles contribution in dev
ve sensor data were input to an FPGA and classified by multinomial logistic regression (MLR) and decision tree (DT) algorithms. Calibrated

Ankle joint can have loads of 10-13 times of the body weight during power demanding activities. Since energetically-passive prostheses cann
t importance for healthcare professionals and patients. The electroencephalography (EEG), which allows for registering brain activity with the
ıas a great influence on a heart attack. As a remedy, vascular stents are frequently used to prevent restenosis. It is very crucial to prohibit th
s. Clear cell renal cell carcinoma (ccRCC) is the most common sub-type of RCC with approximately %80 occurrence rate. Accurate, non-inv
s to study emotion recognition is using physiological signals such as EEG data. However, using physiological signals requires using feature e
bacterial attachment, and biofilm formation with a comparison of Fluoroplastic one. The novelty of the study lies in the 3D printing fabrication
ys are preferred biomaterials, due to their mechanical, physical and biological characteristics. Ti is a biocompatible material with high corrosi
ose, it is required to understand human brain activity related to some parameters (e.g., sensation level, frequency, time window, etc.) of tact
on detection of Alzheimer's disease (AD) intuitive image similarity-measure-based ap- proach. The first objective was to diagnose AD autom
ımine the efficiency of a 1940 nm Thulium fiber laser in the incisional operation of liver tissue. Thus, the tissue ablation efficiency of this laser
when suitable conditions are provided and simulate as a dermal substitute. However, this layer, which is produced by the cell culture method
e late 19th century. Because the preparation of FFPE specimens is a complex, lengthy, and difficult to standardize process, and due to the co
patient and radiomics data from CT images. CT images of 192 malignant kidney tumor cases (142 clear-cell, 50 other) from TCIA's KiTS-19
an be designed to have functions of controlled and selective drug release. Among these systems, core-shell structured hybrid nanoparticles h
t in a virtual reality platform by using Unity3D and Blender software. Data for visual and vibrotactile psychophysical limits were obtained in se
odies plays an important role in understanding synapse formation, axonal injury and regeneration mechanisms, and the interaction between
lepsy. Visually diagnosing seizure activity can be challenging for medical professionals because doing so correctly requires a great deal of ol
rrent inverse dynamics calculations of ankle power rely on gait analysis data collected in specialized, expensive laboratories, which limits its a
to poor selective control. In CP patients, crouch gait with excessive knee flexion is usually corrected by hamstring lengthening surgery, which
r con tracture. Excessive knee flexion during gait e.g., crouch gait is a common impairment and often corrected by hamstring lengthening su
rug by extending the release over a longer period of time. However, the most significant challenge of these systems is the protein corona (P
caused by the interaction among different neuronal communities. Numerous algorithms for the automatic classification of EEG signals have b
compounds like drugs, proteins in their core and their polymeric membrane prevent the living environment from the side effects of these carri
s of DA leads to debilitating motor symptoms, such as tremors, rigidity, and bradykinesia. Deep brain stimulation (DBS) is considered state-o
ata, prosthesis infections correlate with biofilm formation that is highly resilient to host immune defenses and antibiotics. The main goal of thi
he morphological features of tissues and cells and gives an idea about their biomolecular structures. However, a more accurate determinatio
of light. PDT is a promising new method, however, the efficacy of PDT is still limited because of a low accumulation of PS in the target cell a
onse, that is emitted after a variable time interval has passed. A peculiarity of VI schedules is that responding increases as time spent in an
cellular uptake, and endosomal entrapment. Polyethylenimine (PEI) is a positively charged polymer molecule widely used in nucleic acid deliv
emale and one male patients (age: 33-61) with unilateral CTS took part in the experiments. We used a two-alternative forced choice task exp
ıse of touch. Exploring the electrophysiological basis of vibrotactile forward masking offers valuable insights into how the brain integrates and
uroscience studies. In this study, we developed an unsupervised and online spike sorting algorithm that performs better than existing online a
NPs in a specific site within the body is quite challenging to achieve. In these situations, pH-responsive polymersomes can provide an effecti
ion of parathyroid lesions as well as the estimation of disease severity. Studying the effect of data acquisition parameters on the quantificatio
patient-specific reconstruction plate. The mandible was reconstructed using virtual surgery, and new reference parameters were developed
ofessionals in Advanced Life Support (ALS) procedures. More than a million healthcare professionals partake in ALS training each year. This

hese recordings are later analyzed by cardiologists or computers, and the results obtained guide therapy applied to the patient. In
of a Biotelemetry system. As it can be seen on the following pages, the system designed for demonstration has different approacl
d other assisting devices which must be present in an optimal coronary unit (CCU). The operation principles of these devices are e
ed with the intrinsic behavior of membrane itself and observed in different membrane preparations. In this thesis a review of the ph
nly organization in standardization is described. The topics for Health Preparatory Group in 1985-1986 of T.S.E and the relevant st
ital service organizations. In this study, the elements of an effective biomedical instrumentation maintenance program are present
any field was time consuming and expensive. However, today, the facilities exist to construct databanks and extensive work has b
ntrol Program, is investigated. An Inventory Control method, to be applied to the Ministry of Health and Social Aid (S.S.Y.B) hospita
A static magnetic field and a changing radio-frequency field are applied to the body of the patient. By using the echo signal from th
tifying model parameters, and basic pattern recognition considerations are outlined. A scheme to extract motion information from a
ariety of medical fields from rheumatology to dentistry, from neurology to dermatology, from angiology to ear, nose and throat treat
e theory and applications of biofeedback and presents an original design of a computerized biofeedback system (DBMl. The digital
vier Stokes equations then enable us to derive the Bessel equation, so that the analytical solutions are easily accessible.With the h
een conducted in 32 diagnostic centers in İstanbul in order to find out the major problems encountered in darkrooms and processo
ion are outlined to lower the exposure of radiation to a minimum. The specifications of Radiopharmaceuticals used in Nuclear Med
most of the brain asymmetry studies because their corpus callosum has been cut and they actually have two separate brains whic

eir experimental results and the clinical applications. The consequences of the studies performed in several labs and, hospitals, all
rithm selected for implementation is described and considerations pertinent to this specific implementation are discussed. The bou
speed synthesizer chips. The memory units are designed to be sufficient for writing a sophisticated text-to-speech algorithm. Sug
l tool for physiological classes of medical schools. A brief introduction to computer simulations in physiology is followed by a discus
ot matrix. Each dot may have 256 distinct gray scale levels. Although the system is designed mainly as an image terminal, several
ons to the modified Bessel's functions, numerical values for velocity profiles, volume discharge and stroke volume are calculated. D
be used off-line since image generation is slow. Data from a SOMATOM DR-H CT Scanner have been used in generating sample
is designed. The low-frequency electromagnetic noise field (EMNF) has a lif shape over the frequency range from 10 Hz to 1 kHz
ased network. The program has three main features: i) It is simple compared to other existing softwares ii) It is written in Turkish, th
ed in Turkish spelling and the pronunciation of Turkish syllables to create the best results in programming the speech synthesizer

utoregressive processes with different unknown parameters. These parameters are estimated using Extended Kalman Filtering (E
neral principles, major expert systems in use are described. The information comes from the latest articles on the subject, conferer
stems are faster than the classical methods but they are also quite expensive for most of the microbiology laboratories in our count
enerator types, power sources, leads and electrodes of cardiac pacemakers, their comparisons and new applications are discusse
s possible. To achieve accurate and precise results requires the use of standard analytical methods and good instrumentation. Aft

e current across the electrodes are amplified and digitized for further processing using a image reconstruction algorithm. Bipolar gu
dily increasing. Image compression provides a means for the economical storage and efficient transmission of these diagnostic pic
of Health the formation of health centers, the provincial health Councils was studied. In the third part, the personnel, building and m
le properties of both parts has been adopted on the basis of additivity of two components. Within this model, spontaneous activity,
umber of protons or neutrons possess a characteristic known as 'spin' and they behave like small bar magnets and tend to align wi
of recording data from fourteen bipolar pairs of band electrodes and two bipolar pairs of surface electrodes. Real time monitoring
e text image on an A4-sized standard paper and it utilizes a photosensitive sensor constructed with phototransistors. The preamplif
romatic instrument at a fixed wavelength of 492 nm, with the bandwidth limited to 10 nm, by means of interference filters. In order
ools of the electrophysiologists in the 1990's. Equipment supplied with this option is scarce prices are prohibitive. This study suppl
onnected to an IBM PC compatible computer. The software developed detects heart rate in real time and generates alarm if it can
ons will ease the job of the dentist. On safety side; sterilization, mercury contamination and radiation comes first to mind. Other su
crohardness measurements of cancellous bone demonstrated values varying between 16 and 67 D. P. H. with an average of 29.8
spectrum, other lasers have provided ophthalmologist with fixed wavelength emissions that have become enormously important ir
applied in many clinics, giving rise to multiple alternative approaches and innovations in field. The objective of this thesis is to prop
quisition and stimulus generation is performed on a Macintosh 11 CX computer through MAcAdios 11 A/D card. The system has a
xamined and a software for recognizing the white blood corpuscle was developed by using the Kohonen's Self Organization Future
al analysis methods. All the parameters of the applied techniques can easily be accessed by the user through the menu driven use
factor and the dc offset controlled through the software. The ECG front and uses common-mode feedback and provides a CMRR
on part. By the construction of an image processing system on such a widely known hardware basis, sharing and availability to cor
environments. It challenges and probably would substitute several surgical and conventional medical rehabilitative methods. The fi
he study involves the determination of appropriate conditions for the measurement. Then, the standard set-up has been constructe
, load-cycling and stress relaxation properties. The shrinkages of the actual skins were also measured shortly after cutting. Histolo
This thesis presents a developed software library for 3-D imaging on a workstation. With the volume data represented in terms of v
n both cases, to analyze them in time and frequency domain and to distinguish a normal case from a pathological case. To achiev
having a single hidden later and a single output neuron. The conventional back propagation learning law has been applied to estim
duced in this study is based on the Hill's three-element model. While the elastic elements of the model are well-defined by stress-s
dies in Medical centers, laboratories, Biomedical and Medicine departments of faculties. The designed DDD (pacing and sensing ir
of ECG compression methods is a major problem. Present evaluation methods preclude any direct comparison among existing E
plexers. A current drive of 2 mA at 45 kHz is multiplexed to adjacent pairs of electrodes and peripheral potential differences are re
fore and after the process. The tetra polar (current drive-voltage sense) measurement technique is used with disposable ECG elec
riments were done to find the optimal location of the maternal electrodes. The data was processed, and separated into its compor
tion of a bipolar, high CMRR, low-noise and low cost isolated bio potential amplifier for EEG and EP measurements and a microc
with the standard video is a serious problem; the analog video output is directly digitized using a flash ADC (Analog to Digital Cor
he body resistivity image, the forward problem is solved first, by representing the body with its Finite-Element model. For this purpo

tained form previous literature surveys a comparative evaluation of the mechanical properties of the human knee joint ligaments a
lants. The first part of the thesis presents the results of a survey designed to determine the types of implant materials and the freq
signals from chest electrodes can be monitored simultaneously, up to five chest electrodes. The number of the chest electrodes, h
ation software has been developed and installed at the Farabi Hospital of Karadeniz Technical University of Trabzon. Clinical Inforr
)kHz sinusoidal current is injected between adjacent electrode pairs and peripheral potential differences are recorded by serially st
d. For this, two in vivo tests have been performed: a systemic toxicity test (using mice), and a subcutaneous implantation test (usir
itis and chronic bronchitis. The system runs under PC and PC-Compatible machines and MS-DOS operating system or Windows 3
ıths of 1994, ranged in age from 23 to 82 (mean age of 53.3). To compare the effectiveness and acceptability of masking of tinnitu
ons. This variance results in different absorption levels of light. Using this phenomenon, a Helium-Neon laser unit was used as the
ıds directly, since they are corrupted with sounds having similar characteristics which originate from certain internal sources, such
us enough to induce symptoms. This technique is based on the knowledge that coronary stenoses produce sounds due to the turb
ve different frequencies was designed. To assess the effects of altitude, the instruments is used in performing multifrequency bioin
are and software. Considering that the electrical impedance of tissues is frequency dependent, for tissue characterization, measur
amplifiers for tracheal sounds, environmental sounds and a flow potentiometer have been used. Using this system the tracheal sc
ortion Product Otoacoustic Emissions (DPOAE) at 2F1-F2 are measured over the range 1-9 KHz and 1-6 KHz of F2 respectively, fi
ust not have any side effects on the biological systems. In this study, varying compositions of (10, 15, 20, 25, 30%ZrO2) Alumina-Z
e Filtering (AAF) algorithm. The third method is the Adaptive Line Enhancement (ALE) algorithm and has a rather different filtering
ta. The algorithm is based on Autoregressive Moving Average Modeling. To test the performance and to ensure the reliability of th
converter system, a digital optoisolation unit, and an interface card to communicate the system to an IBM compatible PC. Digital o
newborns. The system consists of a commercially available pressure sensitive pad placed under the baby, an amplifier, an A/D co
cities encountered are much smaller than those for which Doppler systems have so far been used, and also because of difficulties
ed using 3M-Littmann 2325VP 6,25 cm² Al-Spot ECG-Electrodes. For testing the skeletal muscle from sheeps and chickens, a cyl
ents the preliminary performance results of an active vision system motivated by these findings. The mechanical hardware implem
audio stimulus, based on 1D ANOVA method, was defined and computed using the data taken from head-skin and skull of the rab
when the blood interacts with the membranes used for haemodialysis. . .The objective of this thesis was to have a better knowledg
vectorcardiography is used only in medical centers and by specialty medical groups. Its value is limited for routine clinical practice.
epolarization in interpreting electrocardiogram (ECG) is investigated; and the ionic basis of the clinical problems such as long QT s
ne stenosis in the systolic region. A crescendo-- decrescendo type of murmur has a clear diagnostic potential. Therefore the aim o
this study a comparison of three different spinal instrumentation systems are presented. Specimens representing the rods of these
ıe wide difference between the characteristic impedances of soft tissue and bone, it is very difficult to obtain a clear bone image; o
nis thesis was to investigate the types and frequency of orthopaedic implant materials used in turkey from 1991 to the end of 1994
nents. With these properties, the articular cartilage not only prevents the wearing of the bone surfaces by the movement of the pai
e and thus, their detection is quite difficult. There are plenty of tinnitus treatment methods that all focus on controlling these sound
concentrated about the software for dynamic imaging of Electrical Impedance Tomography. An EIT image, represents the variatio

and monitoring hemodialysis treatments. However, despite the acknowledged advantages of the UKM, the methods of performing
e aid of stereotactic instruments. The objectives are to explore the functional properties of target tissue, to biopsy or to alter it by pl
is obtained from a broad electron beam by using a simple technique. The data taken with a "closed collimator" are subtracted from
itself as a disturbing "buzzing" sound in the hearing aid output. The electromagnetic compatibility of 16 different hearing aid types
in the bone, lead to proximal bone loss and instability. The ideal bone replacement material would have a modulus equal to that of
without a loss in accuracy. The package is developed under Windows 95 in Delphi 2.0 environment, which enables the program to
us work has shown the effect of this problem on Health Care quality and cost; for example repeat investigations and medication er
t and determines patient's hearing thresholds for 80 different preselected frequencies. These thresholds are stored and used in lat
oncentrate. The first step in preparing dialysate is to ensure that the chemical and bacteriological quality of the available water is s
crosoft Windows 95T environment on IBMT PC and IBM PC compatible machines. NEXPERT is designed to be a user-friendly sys
rget) and common (non-target) stimuli types. To prevent overfitting, which is one of the most important weaknesses of the backpro
ecially constructed resistive tumescence sensor, a PC equipped with a 12-bit A/D converter board and appropriate software. It can
ssues based on temperature variation was proposed, and tissue characteristics under thermally changing conditions were investig
obtain parameters which can be useful for pattern recognition. Fractal Modeling is a new approach in signal modeling which was r
the use of biomaterials into the daily life of medicine. Today the use of biomaterials has reached a trade capacity of nearly 10 mill
apolar) measurement system, the resistance values of the patients during dialysis are collected by making use of disposable ECG
easurement, surface tests, micro hardness, friction and wear, corrosion tests were performed. It is found that "PMMA - Alumina" c
ange of 100Q - lkQ, with better than 1% accuracy. The specially designed conductivity cell (2 cm x 0.65 cm x 2 cm) applies current
phere of the brain that has the lesion. In stroke rehabilitation, therapeutic exercises and certain innovative approaches such as bio
a meaningful way has become increasingly important and urgent in recent years as an abundance of new diagnostic tests have b
amined to express the output of the motor rather than the somatosensory cortex. The upper limb joints were found to have a wider
sers with recommendations concerning further tests and treatment plans. The software is written using a rule based programming
s of the samples, surface of the samples have been polished firstly. Then surface studies and indentation hardness tests have bee
a metal is facing a magnetic field change, there is the induction of eddy currents on the metal and the induced currents are being c
ng the cornea.Hyperopia and astigmatism are corrected by the Summit SVS Apex Plus ArF excimer laser system with the help of a
the combinations of trunk and limbs at 5 discrete frequencies using a custom made 4-probe impedance analyser. Skinfold, circum
and to implement it with semiconductor circuit components. For this purpose, PIC16C84 microcontroller has been chosen as a pro
sed in this study is to synthesize speech by concatenation of speech segments extracted from a prerecorded speech corpus. A dir
is digitally adjustable, four different biological signals are processed and monitored at the same time. Each channel has two amplif
disease are analyzed, each record of epilepsy and schizophrenia including also a control record. The seizure and control records
l, where electrical currents are injected into the. body while voltages are measured using surface electrodes. Then cross-sectional
d on keyword analysis. Natural language processing has to be implemented to make such a system work. With this purpose a new
ese parameters of tissues can be calculated from the regular magnetic resonance images, the type of tissue could also be determ
f this study is to establish an intraoral artificial larynx system that will produce vibrations at the fundamental frequency of the vocal

:ations made by the acoustic structure of the ear canal itself. The aim of this study is to construct an in situ calibration algorithm tha
olaryngology. Even though tinnitus is a symptom like pain, temperature, headache, dizziness etc., distress with tinnitus is subjectiv
artery disease (angina pectoris), and diabetic ischemia. Besides, there is suspicion of strong association with sudden deafness, s
ɔain and fear accompanying insertion of needle electrodes; especially with younger children. In this respect, surface EMG has num
dildiği bugünlere geldi. Bugünkü teknoloji, daha az film veya filmsiz çalışabilme yetisine sahip. Bu da imajların görüntülenmesinin m
ts database for later referral purposes. The use of SQL and a relational database structure in its design makes it a useful and func
ı who are diagnosed at an early stage can survive this often deadly disease. Mammography provides the best screening modality f
espite maximally tolerated trials, with single or multiple anti epileptic drugs (AEDs). This group of unfortunate patients constitute m
; in our major cities handle 1000 - 1500 distinct samples daily, it is easy to understand how serious can be the consequences of a
cific absorption rate of radiofrequency radiation (900 MHz) from cellular phones on the human head was investigated. A comprehe
tion departments are responsible for polyclinic, operating room and intensive care units. The software is designed based on client/
iation of different kinds of mobile telephones, EM effects on blood brain barrier (BBB) and the temperature effect in rats' brain due
ıigh compared to known best standards (According to Country Report 1997, infant mortality rate in 1996 is 42.2 %o). Various reas
ysis, and internally fixated with Kirschner wires. At the end of the third week, animals, randomly divided into two groups, underwen
is a challenging goal for researchers. This study presents a preliminary approach for the telemetry of respiratory sounds. Increasi
of the superior colliculus. This result is consistent with previous studies. Intracollicular synaptic circuitry is very important to determi
tomated technique for the selection of an appropriate tray for the patient and to offer a new design for the cast population used in
sis has been used which allows point tracking everywhere on the tongue. Both surface and internal points of the tongue were usec
ACTR (Atlas-CT registrar) is equipped with many abilities to manipulate the overlays and CT images in all axial, sagittal and fronta
heric neuropathy, optic atrophy, sensorineural hearing loss may occur. The basic objective of the present study has been to deter
:neral cleansing of the room; reference measurements are performed with the Sedimentation and the Particle Counting Methods. A
gical, relational, and functional as sessment of the anatomical structures. An Open Graphics Library (OpenGL) based image displa
different forms of silver antimicrobial application depends on the nature of these forms, the methods of application, and the field c
dium in the analyzed tagged MR images as pathological and non. In this thesis, images are first analyzed using harmonic phase (H
the musculatory musculature and/or temporomandibular joints and associated structures. Various studies indicate that over 50%
g away tissue from the applied area. However, despite of the disadvantages, high speed turning cutters are dentists' basic equipm
reased risk of fracture, particularly of the spine, wrist, hip, pelvis and upper arm. Osteoporosis and associated fractures are an imp
f classifiers, namely wavelet-based neural network and conventional artificial neural network (ANN), are used and compared for th
g performance. In speech recognition of Turkish radiological words, HMMs (Hidden Markov Models) of triphones (phone with its ne
disordered voice can be corrected by manipulating the vocal folds and related structures to remove the pathologies or deformatior
as shown the effect of this problem on health care quality and cost in the form of investigations and medication errors. A low cost s
appropriate precautions and provide them with more insight into the phenomena with objective manners. The aim of this study is to
the aneurysms. Today, there are several coil detachment systems that have important deficiencies. In this study, an alternative c
now made it possible to develop systems that can apply complex signal processing algorithms in real time. In this work, a real-tim

es, monitoring training and performance development as well as scientific research on muscular adaptations during intense physic
ler Ultrasound Audio (DUA) signals recorded from two divers are analyzed to detect the embolic waveforms. The optimal pass bar
nm diode laser on rat brain tissue. In this thesis, in order to analyze the extent of damage created by 980-nm diode laser (2W/2sec
rain with a diode laser and of electric current were investigated. Lesions were examined histologically by using Cresyl Fast Violet,
elatively small volumes. Q-factor can be defined as how sharp morphology dependent resonance in the elastic scattering spectrum
r ortamında araştırılmıştır. Op tik özelliklerin hesaplanabilmesi amacıyla dokuların dağınık geri yansıyan, toplam geri yansıyan, dağ
of the organic phase in calf femur. Optimum conditions of HAp production were investigated by changing the parameters of solutio
ade these measurements possible. However both these systems are large and expensive and they have some lim itations such as
attracted to specific organs, bones, or tissues, emit gamma rays that can be detected by gamma or PET cameras. These cameras
d. However, the surface ERPs can be decomposed into functional neuronal components using time-frequency analysis. The aim o
y, In the present study, the prosthesis, the cement, and the bone are parametrically modeled. The assembly design is related to th
dynamic and metabolic changes in active brain areas. fNIRS provides spectroscopic information on neurovascular coupling param
lependent by developing a physical model that will adapt itself to mass changes. In this study, we focus on only one actuator and e
/ps and loss of voice. The current diagnostic methods depend on clinical examination and lack the facility to inspect the actual abu
ent for the cellular response. The duration of the pathway also contributes to the biological output generated. In PC 12 cells it has
curing in the brain. In this study, a user friendly computational system is developed for routine analysis of EEG activ ity, to perform
their associated base stations. The 1990's have seen the introduction of digital cellular phones and an enormous increase in the u
ts of changes in pitch, tension, or intensity. It is a relatively recent technique and has gained clinical acceptance within the last two
ated with overall needs of the organism and therefore subject to some form of coordination. This is achieved by subjecting the beh
study is to establish standard operation parameters for each type of interventional fluoroscopic procedure. This study is conducte
nge of the intensity pattern in images reflects the motion of the underlying myocardium. Tagging is particularly valuable in cardiac
echanisms underlying the signals detected by these techniques are still largely unknown. The main objective of this proposed thes
ergy laser irradiation had an increasing effect on the proliferation of fibroblast cells for the specific energy levels. Especially in 8th
displaying, saving cardiac MR images which are previously acquired and saved in DICOM format in backup media (CDROM). Addi
g. Due to their high sensitivity microsphere's MDR's can be used for biomolecular sensing applications. In this work, elastic scatteri
microtubules, destroys axonal transport, and causes death of cholinergic neurons in the MS, which, for their survival, require neur
myocardial motion analysis is MR tagging, but with the advances of the MR hardware, phase based flow imaging techniques have
e potentially hazardous electromagnetic fields in order to diagnose or treat illnesses. These equipments, for instance, Magnetic Re
nts are used to maintain or improve joint range of motion, facilitate or strengthen weak muscles, inhibit or weaken spastic agonist
lesign of procedures and measurement devices to measure these parameters, the provision of methods to compare measured an
nchronize both systems an optical synch signal, generated by the scanner, is available. In order to detect these synchronization sig
rs. For the sake of 3-D image registration, their performances on different modalities are compared on MATLAB environment. This
National Instruments. The major benefits of virtual instrumentation include increased performance and reduced costs. Because the
ve will briefly describe the diffusion approximation and give an outline of the solution to the heterogeneous diffusion equation using

rmation process is called angiogenesis, and the identification of the important signaling pathways leading to angiogenesis is a majo
gait parameters, 32 parameters in kinematics and 48 parameters in kinetics. These parameters were divided according to age and
ss levels of tissue oxygenation trends in the contracting muscle during squat exercise via fNIRS, and electrical behaviour of the m
ıt modulate the smooth muscles in generating muscular contractions. Electrogastrography is a procedure for recording gastric myo
er endogeneous contrast agents, such as water protons (for perfusion and diffusion) or deoxyhemogobin (for oxygenation), or exo
e experiments were performed using the terminal phalanx of the human middle finger with a 40 Hz vibratory stimulus, but without u
which provides non-invasive, rapid and affordable method of monitoring brain oxygenation levels during cognitive activity and eve
s is an inexpensive, non-invasive diagnostic technique, it has been neglected until recently because of its limitations and enormous
solution of scalp topography is low. To overcome the limitation of scalp topography, several current-density estimation techniques
-ups are important issues of telemonitoring. In order to support the above different growing application fields we created a combine
ıs and may cause undesired or irreversible results. Therefore, periodic inspections of medical equipment are essential to ensure sa
ıt which is only possible by understanding its dynamics. This study aims to observe the differences cerebrovascular dynamics of m
s tissue shows morphological alterations in the cellular level. Such changes may be detected by using the spectrum of the light sca
one on the Wistar rat's dorsal skin were welded. Tissue welding with 980-nm wavelength depends on the degree of photothermal i
raft failure in either an early or late manner. While late graft failure is usually due to progression of the underlying disease, early gr
one age analysis. Firstly we examined two different clinical methods; The Greulich and Pyle method and the Tanner and Whiteho
e signals from the ventilator and transmit them to a PC properly. A software system has been developed in order to process the inp
ICG) dye induced approaches in biophotonics applications provides possible usage of 809-nm diode laser for diagnostic and thera
nd accurate surgery, information about optical properties of brain tissue is required. Since optical properties of brain tissue may ch
tiometry (DEXA) scanners is the most accepted predictor of osteoporotic fractures. The World Health Organization (WHO) also us
are utilized in this preliminary analysis. Initially, LVQ, PCA and K-means analysis are applied to selected image data sets. As a res
The advantage of such measurement in skeletal muscle is the ability to obtain local information about muscle oxygenation, with the
ontinuing ventilatory efforts, several times during sleep with a reduction of arterial oxygen saturation (SaO2).Sleep apnea can clinic
limitation of scintimammography is its poor sensitivity and image quality for small lesions (<1.5cm). The aim of this work is to optim
who have completed breast conserving "lumpectomy", young women with dense breasts or those with a great amount of DCIS (du
ıt 40 Hz. Since Pacinian (P) channel and NPI channel have similar thresholds at 40 Hz, a forward-masking procedure was used to
dent light power and source-detector distance. The hypothesis is tested both numerically by Photon Migration Imaging (PMI)Toolb
sitivity is a measure of the ability of an individual to detect a difference in the luminance between two areas. Especially in the early
situation can be corrected by using muscle stimulators and synchronizing functional electrical stimulation of the common peronea
veryday during 3 weeks. fMRI scans of subjects are done one at the beginning and once after each week. The data acquired is ar
ıp, including a made-to specification LCU using the highest intensity single LED available is prepared to find the light intensity char
to be controlled at every segment while keeping the compression ratio (CR) as large as possible with reasonable implementation
e limbs which may be more prone to damage and to suggest a critical value of back load relative to the body weight. Fifteen health
RPs are genes encoding several most important neurotransmitter receptors. In this study, we aimed to identify associations of func

ınce as an orbital implant material due to its biocompatibility and its porous structure allowing tissue in growth. In this study, it is int
tial information is recognized is the mental rotation experiment. Mental rotation is based on the idea that if a shape is presented in
ıared. Most of these studies made the comparison in the dimension of tactile spatial processing. In this study however, the subject
ıimic biological and psychological findings is hoped to contribute to our understanding of the underlying reasons and possible cons
as applied in two different modes: Continuous wave and modulated in 250 ms on/off and 50 ms on/off cycles. Carbonization thresh
ıer orientations, given that the tensor in question is anisotropic. MR-DTI fiber tractography aims at following these principal diffusic
e ECG signals, a database for central data storage, and an expert user interface for ECG data evaluation. The system primarily ai
ıt of an embedded communication framework designed to enable quick diagnosis of AMI and immediate activation of emergency r
or with 980-nm diode laser application in the rat brain. The animals were tested in forced swim test followed a week later by Morri
hnology, several biomechanical joint trajectories of human gait are available. Examining all parameters is wearisome and time cor
oxy-hemoglobin (HbO2) break up by increasing the body temperature and slightly decreasing the pH of blood. Stretching, meanwl
ferent types of high resolution Positron emission tomography (PET) systems. Among those, most designs have consisted of detec
block or discrete crystals for small animal PET systems. Although, the discrete crystal detector designs have provided high spatial
d on their discharge patterns. In the neural response to von Frey indentation, RA units had a rapid transient discharge with the ma
every few seconds from one monocular stimulus to the other or an unstable piecemeal mixture is seen. Binocular rivalry is affected
roject to design the laboratory quality manual in compliance with the EN 17025 standard, for the Biomedical Calibration Laboratory
rely limited by electrode number used in measurements and head volume conduction effect. Dipole source analysis, EEG forward
is based on the dependency of the attenuation coefficient of metals on the energy of the incident photons, which is related to kVp.
ECG data. The software on the server, which is technically able to handle unlimited numbers of connections of client devices, app
on consists of the formation and violent collapse of gas bubbles with sudden gas release. Examples of medical treatments where
l neurons was investigated. Evoked post-synaptic currents were recorded with low frequency (0.1 Hz) stimulation of Schaffer collat
raphy has some limitations in breast cancer diagnosis. However, studies show that breast scintigraphy does not give successful re
found. Additionally, the 250-Hz masking stimuli that were required to mask the Pacinian channel for selectively activating the Non-
entification technique, Autoregressive with Exogenous input (ARX) model. Analysis of modeled signals for healthy and migraine su
makes it superior to other neuroimaging modalities is its very high temporal resolution. EEG reflects functional activities in the ran
life quality of the patients. Therefore, the need for recognition and treatment of patients with ADHD is necessary. Methylphenidate
ıs of the detector. A continuous scintillation detector is chosen, in order to overcome the difficulties observed in light collection and
chanical conditions. Another aim of the study was to investigate the effect of relative position and absolute length changes on loca
physicians use palpation for a variety of medical procedures to find tumors and arteries, as well as to assess the health of soft tiss
eparation of blood components, quality laboratory testing and ensuring the safest and most appropriate use of blood/blood compor
MSCs) from bone marrow or umbilical cord are now being tested for many lethal and chronic disorders worldwide; however the clini
the vowels in the phonetic system. The effects of the anatomic sites such as mouth, tongue, and pharynx have been well studied ir
There are extensive studies about photothermal effects of laser tissue interaction. In all these studies, measuring temperature acc
management, personnel information in charge of medical equipment, equipment failure and maintenance record registration, prev

ıl stimuli to subjects during fMRI scans. One static visual stimulus and eleven flashing stimuli with frequencies ranging from 4 to14
ıe viscoelastic coefficients were included to involve time dependent material properties and to observe whether the band-pass filte
›py (fNIRS) is a non-invasive brain imaging technique measuring the changes in oxy-hemoglobin and deoxy-hemoglobin particular
on the scalp. Furthermore, animal imaging requires miniaturized source and detectors to be placed on animal surface but there a
es using MRI. All scans were performed at 3T in two healthy volunteers and two patients with cerebral lesions. In DSC, contrast ag
e (intact condition) and after proximal partial fasciotomy, isometric muscle forces of the rat were measured at proximal and distal t
trast and 3D anatomical information. X-ray fused with MRI (XFM) is a system which combines strengths of both image modalities t
nuscle with intact neighboring muscular and non-muscular structures. In order to achieve this goal AT was performed on the proxi
of spatial and temporal distribution of temperature (thus the effects and side effects of treatment) within the applied region. A targe
me as the one presented n trials previously. It is known that dorsolateral and ventrolateral prefrontal cortex (PFC) is especially acti
nagnetic field. Mainly the RF coil inhomogeneity effect causes intensity inhomogeneity through the image. This intensity inhomoge
n many examples of nonhuman primate vocalizations, the vocal folds do not synchronize. Consequently, produced signal is rather
free divers with different experience levels and a control group. Hemoglobin concentration (by functional near infrared spectrosco
our conditions including single (Case P), two double (Case P-I and Case P-D) and triple (Case P-I-D) interventions were studied. N
process. The aim of this study was to investigate the prefrontal cortex (PFC) oxygenation increase as working memory load is incr
of form, color, luminance and motion differ. In the present study, it was investigated whether luminance difference and motion are
ed fiber visualized the morphological changes. Rough wavy structure with defects was seen in used-processed fiber, whereas a sr
Fresenius FX80 polysulfone hemodialyzer membrane was exposed to formaldehyde and bleach after a dialysis session. The mec
he device presented in this study is a four-probe, multi frequency, portable bio-impedance measurement device based on the prin
as a sample KPI. Enterprise Digital Dashboard (EDD) is an effective tool for executives to get a top level view of their corporate. D
0 lux provided by an incandescent lamp) 3 or 9 h after dark onset. A control group (n=8) was treated similarly except for light expo
e equations of force-velocity relationship for muscle fiber contraction were derived using a special cross-bridge theory. Then, durin
es can be produced and functional information can be achieved. Near infrared spectroscopy uses light at the infrared portion of the
ature gradient can be created at the application site. Corneal welding is rather a new application area in laser medicine, and few st
to increase efficiency. Also Finite Difference Method was used for heat diffusion because of its simplicity. The results taken from N
ed by the mental arithmetic (MA) task between migraineurs and healthy subjects by using functional near infrared spectroscopy (fN
'2)" method, which relies on the systematic evaluation of the maturity of all the bones in the hand and wrist. In this study, first we ir
nis ability to inhibit inappropriate or irrelevant responses is a hallmark of executive control and is subserved by prefrontal cortex of
systems that would detect any kind of abnormalities in the heart's electrical activity. These automated systems are expected to he
toma formation. In order to eliminate hematoma formation, antiembolic agents injection into the body is generally imperative. In thi
e frontal and the occipital cortex and the corresponding HBO2 changes are investigated for the frontal cortex. The left and the righ
sigma-delta is capable of providing a very high resolution for low-to-medium signal bandwidth applications. It utilizes oversampling
RF inhomogeneity which dramatically reduces the accuracy of the results of automatic post-processing techniques. A number of m
itude, and frequency of vibrotactile stimuli. However, non-invasive recording of evoked somatosensory brain responses on the sca

. In order to provide functionality to the upper eyelids, ferromagnetic steel pieces were placed inside and outside of the eyelids of t
ıital Synthesis (DDS) and logarithmic shaping methods are utilized for sine wave generation. For noise, firstly wide band noise is g
on water frog's (Rana ridibunda) skin perfused in a tissue bath. Maintained mechanical stimulation was applied at suprathreshold l
cted conventionally for this purpose use a set of real images for which a consensus is reached by a team of medical imaging speci
evidence on sizable interantagonistic epimuscular myofascial force transmission. It is hypothesized in this study that epimuscular
kets provide higher strength, more resistance to wear and deformation, better color stability and preferred for cosmetic reasons. A
and quality of processes and their improvements. Statistical process control (SPC) is a key approach to quality improvement. Cont
r optic cable embedded in the bone of an experimental animal had apparently become fused to the bone after remaining in situ for
aging transfer system and control MRI scanner software when necessary. This platform consists of main console and sub-modules
ıodified to operate a surgical end-effector that is designed specifically for orthopedic surgery. The electronic control system for bot
ıllary fixed with an open technique to forty young adult, male Sprague-Dawley rats and randomized to RT (irradiation with 1 Gy) an
etic gastropathy includes a number of neuromuscular dysfunctions of the stomach, including abnormalities of gastric contractility, t
the current research is to investigate the effect of rotenone on synaptic transmission between neurons in hippocampus, especially
naximum Z value and location analysis and mean Z value analysis for cortical and subcortical brain regions. Abstract Radiologists
system as inputs, bone age is produced as an output. Additionally, chronological age, radiologist readings and sex information are
uments. During interventional studies X-ray Angiography provides us with high resolution images at sufficient frame rate, but it doe
ing the venous compliance and resistance values of the brain by constructing a three-element Windkessel model and observing ox
hetic devices, computer cursors or robot arms. In order to extract information from the brain, physical source of information must b
ubjects who played computer games excessively (>28 hrs/wk) and in 16 subjects who played infrequently (ages: 19-27). ANOVA w
es to be able to make precise and accurate diagnoses. Parallel to other imaging modalities, ultrasound imaging made also massive
nosis and treatment. Thus, medical devices' proper selection, planned and in time periodic maintenance, repair and calibration pro
biomarker. In this study, we aimed to analyze the association between volumetric MR measurements and possible AD related seru
elated with learning and memory. Various pathological conditions occur as a result of differences in neuronal activities in hippocam
muscle model generated using the finite element method was used. In order to determine the effect of paralyzation location three
by a method called preconditioning in which alternating contractions are done at high and low lengths until no further decreases of
on of therapeutic loading was applied at three different locations (Location P, I, and D) for single loading cases and at two different
ike plastic tube of 1.45 cm diameter and 14 ml volume with two stainless-steel electrodes. Blood samples of 5 ml are drawn from 9
ject is to investigate statistical correlation between these two methods. If so, particle-counting technique could replace frequent mi
sed a computerized surgical assistant whose core functionalities are provided by an open source software package called Slicer. S
onitors is their high cost. First objective of the study was to design a 32” LCD PACS monitor to be as compatible as possible to a n
cles. Studies including direct measurement of human muscle force are very rare due to limited access to the muscle. With the met
rtant problems in XF imaging is the lack of soft tissue contrast; besides the obvious problem of ionizing radiation. During the interv
nal will be amplified at certain frequencies. However, this function may vary depending on whether the hearing aid is worn or not. T
VLA plays a significant role in the early and late results of the treatment. Longer wavelengths (>1000-nm) show greater water abs

ot symmetric along proximo-distal axis due to the varying mechanical properties of the skin. In this study, sinusoidal mechanical vil
the differences between the organizations of the brain during the execution of these tasks within a graph theoretical context. The
use of classical statistics to test the functional data such as the multiple comparison problem, and the limitation in the interpretatic
ermine the whole volume of the lesion and to label it with reference to an anatomical atlas in order to identify the stroke region mo
plored objects shows the mental rotation effect. Twelve sighted, 12 congenitally blind subjects participated in this study. All subjec
diation doses. Usage of digital technology in dental imaging is also increasing rapidly. Although, dental dose levels are significantly
libular bovine teeth with adhesive agent. The samples were divided into 9 different groups due to applied laser power and laser du
plane- of-interest. In this project a special multiple projection algorithm along with an out-of-plane blur removal method is impleme
In addition, there is a control group, which had conventional acid etching technique. Laser etching procedure was carried out by t
purpose, short time memory experiment with a varying memory load combinations was designed. The functional coupling among
culate the mechanical impedance components. Skin samples were also studied histologically from the same locations where the ir
method. After crushing or transection of nerve, the mononuclear cells invade the injured segment and remove injured nerve struc
y and temporal variability of FC networks. In this study functional near infrared spectroscopy (fNIRS) signals were recorded from p
s of individuals hearing. Auditory brain response (ABR) is an AEP and can be detected using EEG technology and signal pro- cess
elp and are unable to work. Although a number of invasive and non-invasive techniques have been studied for shortening fracture
sitively scan neurobiological changes in the PFC during neurological and psychiatric disorders, many studies benefits from the con
rrow bands. The reagents in each block react with specific component is present, and the color change produced is proportional to
well as some biological features of celluar systems. In our study we aimed at building up our framework on the use of Bayesian ne
itoring due to its high optical contrast and high ultrasonic resolution. The parameters of the laser used in photoa- coustics, namely
a and 0.56±0.06 MPa which were in the range of healthy human articular cartilage's stiffness (0.45-0.80 MPa) and measured by na
l by solvent casting using the PDMS as a mold. The effect of PLA concentration (2.5-10% (w/v) in chloroform) and casting time (as
lood with graded color charts. Since results are subjective and depend on the spectral energy distribution of the illuminant, the me
n aluminum contactor (r=0.685 cm) was used for the stimulation of the left middle fingertip of the subjects. The measurements of th
the potential of Tm: fibre laser as an incisional and excisional oral surgical tool.Both 1940 nm Tm: fibre and 980 nm diode laser we
T dosimetry (light dose, photosen- sitizer dose and concentration of produced ROS) is very critical in the photoactivation process.
private hospital in Turkey; this study aims to present a secure healthcare network infrastructure while presenting the security vuln
n related problems. In order to overcome those problems tissue engineers try to produce required tissue in the laboratories with fe
ch in biological systems.This thesis is mainly concerned with modeling and inference of gene regulatory dynamics on the basis of g
f AD is still unknown, further studies for possible biomarkers are needed. Therefore, in this study, the objective is to find a distincti
nances and neuronal activa- tion within and between two cognitive tasks; Tower of London (TOL) and color-word matching Stroop
ce modification without any interference. In the first step, Si wafers were cleaned and modification of surfaces was carried out with
y- and deoxy-haemoglobin in blood as a response to the brain activation during light-tissue interactions. The absorption of these a
ery young ages in children patients with CP.The measurements conducted using motion analysis techniques allowed determi- nati
ture monitoring to provide the necessary feedback for adjusting laser parameters to minimize the collateral thermal damage to adj

custom LabVIEW interface. The device is based on a modified Howland current-source topology due to its effciency for injecting p
issue network gets denser, creating even more adhesions. To increase the blood circulation and muscle performance, and to decr
) along with nonrigid Demons registra- tion were applied together to quantify 3D local deformations. Additionally, diffusion tensor in
or. In diagnostic radiology, medical monitors are mainly recommended because of their higher luminance and better con- trast ratic
ought to be as prevalent as diabetes. This disorder is characterized by temporary pauses in airflow due the pharyngeal collapsing.
g nodules on chest x-ray images. In order to segment and classify nodules better, preprocessing step is needed. Histogram equaliz
ges of 232 patients diagnosed with high and low grade brain tumors were analyzed. The data were collected from both online MR
e accuracy of classification. The computer-assisted characterization of lung nodules involves several steps including segmentation
O2 surfaces were cleaned and modification of surfaces were carried out with 3-mercaptopropanoyl and 3 - (trimethoxysilyl) propar
were compared with resting state metrics to understand the neural mechanism underlying working memory. Correlations between
ne parameters such as brain tissue (subcortical and cortical tissues), laser output power, energy density, mode of operation (conti
as itch and pain. In this thesis, a novel method is proposed to improve this problem by blocking these unwanted sensations. In this
es through interaction between the epoxy groups of GO and the amine groups of APA molecules. Reduced graphene oxide sheet
levices. Aim of this thesis study is to design and develop a Computer Numerical Control (CNC) based 4-axis conductive ink disper
)) using PET images from a database. The CAD system includes a database consisting of a 3D PET image for every query. Via us
vestigate the relation between MD neural activity and EFs using a large fMRI dataset (n=120). We examine this relation through tv
oes the design and testing of a metallic guidewire that is intrinsically MR-safe with preserved mechanical performance. The MR-sat
-scattered above and below the focal plane. Construction of the CLSM setup is established and several images are captured. This
ast agent or ionizing radiation. In this study, ASL-MR images of 19 PD-MCI and 19 cognitively normal PD (PD-CN) patients were a
c imaging (1H-MRSI) is a non-invasive MR technique that provides spectroscopic information about metabolic activity of the brain.
ue engineering applications. Thereby, in this thesis, mimicking bone surface microenvironment was aimed. Firstly, to produce a m
operties and degradation to low toxic lactic acid. However, its hydrophobicity and lack of binding sites for cellular activities restricts
hene Oxide(GO) as the additive. Sharkskin micro-patterns are known to have antibacterial effects therefore possibility of replicating
high absorbance and positive cell behaviour. Alginate (Al) was used as the main polymer and GO was used as additive. L-Cystein
nge of Descemet's membrane's elastic modulus value of 20-80 kPa. Hexagonal patterns with dimensions 20μm in diameter and 4μ
odegradable membranes, which are able to mimic natural bone surface topography. Micro and nanostructures of bone surface wa
s. In this method the genome digested first by a restriction enzyme into large DNA fragments analyzed by PFGE. While DNA finge
corporate RF receiver antenna and long transmission lines for active visualization purpose are prone to RF induced heating. There
es have been shown to affect muscular mechanics causing varying force and movement production. The central determinant of th
es diagnostic yield. For that purpose, we aimed to develop a novel MRI compatible and visible prostate biopsy needle. The visible
y closer elastic modulus to that of cortical bone than metallic implants, which in turn prevents stress shielding and subsequent bon
ith the method of constant stimuli to investigate the effects of frequency on temporal summation in more detail. Six female and fou
ctive magnetron sputtering was performed at 200 W and 200 °C for 4 hours. HA was deposited on ZrO2 layer by electrophoretic d
s. LVADs are pumps that are implanted between the ventricular apex and ascending aorta, unloading the left ventricle. Before clini

ally active prostheses are costly, amputees usually continue with their daily lives using a wheelchair or a passive prosthesis. The a
ed for finding non-invasive biomarkers for early diagnosis of PD-MCI. In this study, 27 cognitively intact PD (PDCI), 32 PD-MCI and
ction into the rat tibialis anterior (TA) has an impact on mechanics of adjacent extensor digitorum muscle (EDL) and (2) BTX has a
study is to characterize specific muscarinic receptor subtype (M2) by immunofluorescence technique for understanding the role of t
Blue Ortho (TBO) as photosensitizer (PS) has been evaluated, and the Photothermal effect as well as subsequent Biofilm formati
nechanical characteristics of the tissue.In this thesis, design and fabrication of a fiber optic sensor based on FPI for force measure
ess is much higher. It has been shown that imposing high loads on a muscle during training affects the stiffness of the muscles ac
est regression and for neural networks: recurrent neural network (RNN) with long short-term memory (LSTM) unit and neuro-fuzzy
ers was shown to elicit feeling of pleasantness and activate insular cortex. In the present study, hairy skin of male Wistar rats was
uptake. The conjugation between ZOL and GO occurs via pi-pi stacking and hydrogen bonding interactions, and there- fore, the dr
s studied to measure different salt concentrations and different pH values. Label-free measurements are done to characterize elec
an axon extending from soma. However, the recent studies show that some hippocampal pyramidal neurons on Cornu Ammonis
tice. Traceurs attenuate impact forces substantially during FFL compared to traditionally used toe-heel landing (THL). However, tra
ance imaging (MRI) using machine learning methods. We also investigated time dependent changes in PD-MCI patients through a
unt of eye fatigue of radiologists. The main objective of this study is to investigate the relation between the eye fatigue and ambie
niversity Cerrahpasa Hospital. According to lumbar DXA results, 21 women were classified as normal, 22 as osteopenia and 5 as
nm. Murine fibroblasts (L929 cell line) were irradiated at 50 mW/cm2, 125 mW/cm2, 200 mW/cm2 of power densities, separately. L
was evaluated. Cold atmospheric plasma (CAP) was used to functionalize the NF surface and thus to mediate the conjugation. Th
uction parameters for parathyroid SPECT imaging. In previous studies, parathyroid SPECT Imaging has been optimized using phy
/CT imaging of SLN detection in breast cancer examinations using simulations. The purpose of this study was to carry out SLN de
r less toe systolic pressure, (b) 0.4 or less ankle-brachial index (ABI), (c) 50 mmHg or less systolic ankle pressure. In this study, a
efit significantly from a comprehensive understanding of the underlying arrhythmogenic mechanisms. However, the limited availabi
are tools that can analyze each of these data types separately. In this study, a flexible and open-source postprocessing software c
mimicked in bone tissue engineering approach. In many studies, CPCs such as tetracalcium phosphate (TTCP) and dicalcium pho
olution including CMC and gelatin. Samples with different powder-to-liquid ratio (62.5, 65, 67.5, and 70%) were fabricated and char
mising antitumor treatment method for its high selectivity, non-invasiveness and minimal side effects. However, due to the resistar
nalyses and converts this information into meaningful results and graphical charts. It can report the failure types, the leading caus
ess personal health services at any time and place they want. Imaging methods are an indispensable tool in modern medicine. In r
ducted to investigate effects of Brain Derived Neurotropic Factor (BDNF) on state of transmembrane currents during neurodegene
linergic inputs, was electrically stim- ulated (for each trial: 0.5-ms bipolar pulses with 50 μA, at 100 Hz for 0.5 s). In total, the exper
od which suggests a cerebral adapta- tion over time. The pathology of TS is not clear; however, neurotransmission deficits, especi
predict breast cancer before metastasis. This study intended to scan SLNs in breast by using SPECT/CT and to enhance image qu
naterials were investigated. Despite having the largest market share of Portland cement, blended cement production and use is ex
environment are directly or indirectly converted into signalling pathways inside the cell and affect cellular metabolism. In this thesis

d blood tissue mimicking phantoms through acoustic impedance measurements recorded by 80 MHz Scanning Acoustic Microscop
olism of the cancer tissue. IDH mutant gliomas have better prognosis than IDH wild type ones. As a result of this mutation, an onc
sing a computational anatomy toolbox called CAT(Computational Anatomy Toolbox) on SPM (Statistical Parameter Mapping) platf
er than before. Although many micropump systems have been invented over the last decade, there is still a need for a small, fast,
reshaping process causes nerve damage. Therefore, a dynamic design is required to apply the required force for shaping the nerv
n the models of Parkinson's is of great importance. Sideritis brevibracteata (P.H. Davis) is a plant endemic to Turkey that is being
n, before the embedding gypsum block, 10*10 mm area was created a labial surface of teeth. Then, they were buried in gypsum bl
of their easy synthesis and easy functionalization thanks to their conjugation properties. The aim of this study is to investigate the e
ous measurement of respiration rate and pattern is desirable for both the patients and the caregivers. Doppler radar can measure t
otential to identify ccRCC and a critical role in ccRCC progression. It is the second most common alteration in ccRCC. Moreover, a

ications were reported associated with existing implants. The aim of this study is to design and prototype a novel left atrial append
ntifying these forces directly are rare. The aim of this study was to determine (1) if the range for spastic muscle-tendon complex le
is used to touch the cube which moves on the slider. The environment includes objects of different stiffnesses, and the user attem
for reconstruction are less than computed tomography. In this thesis, feasibility of tomosynthesis was explored for a stationary det
er. In order to develop the CAD scheme, a coherent and consistent database such as the Lung Image Database Consortium (LIDC
he simulator is not affected by the users' breathing conditions. In order to increase reliability, the simulator has different flow patter
(histidine, leucine, and tryptophan). Newly synthesized molecules were used to form amino acid conjugated self-assembled monc
e electrical activity called electroencephalogram (EEG) . The electrodes placed in di erent regions capture the activity in their neig
two samples (ZOL-GO) were observed on both cell lines of human bone marrow mesenchymal stem cells (MSC) and of breast ca
n activity to control a robotic limb and/or for stimulation to induce somatosensory feedback. Graphene is a good candidate as elec
ening incisions from each side of the patient's rib cage and placing a bent bar under the cage as required by the rib cage. It is still
contradictory to treatment aims including increased passive force, increased muscle stiffness and decreased length range of force

pited. They have the advantage over other materials with their conductivity, large specific surface area, and chemical stability. How
nand requires 3 motors to have full control of its joints. This study aims to construct a model for the 4 fingers to enable full control o
nary hypoplasia is defined as the underdevelopment of the lung. On the other hand, pulmonary hypertension is defined as the incr
controlling the cell response. The purpose of this thesis is to obtain bone-like apatite layer onto 3D printed [Polylactic Acid (PLA)/Pc
ommercially available alginic acid, sodium salt. Alginate hydrogels were used to create a three-dimensional neural cell culture to a
ed as a processing tool for high dimensional datasets as an extension of classical signal processing performed in the Euclidean sp
on–invasive tumor genotype prediction have been studied, but they mostly focusing only on the tumor. Yet, gliomas are known to i
r psychological states in humans are measured with questionnaires. However, none of the current questionnaires can distinguish b
or both research and clinical based areas such as tissue scaffold. However, collagen can lose its natural structure by being affecte
es attach to each other to extend the imaging area without leaving dark regions. Another feature is the ability to read the sensors fr
veloping such algorithms and their usage as the exclusive sensing source is novel. Different techniques of processing raw sEMG d
force and angle values and their derivatives were used as features. Movement-type (stationary, flexion, contact, extension, release

ıot generate net power output, powered ones become essential for demanding tasks. Surface electromyography (sEMG) is a non-i
e help of electrodes placed on the scalp, is generally used to diagnose and monitor epilepsy. In this study, automatic seizure predi
e smooth muscle cells growth not to generate any thrombus formation which can lead to coagulation and in-stent restenosis, and t
asive and preoperative determination of the International Society of Urological Pathology (ISUP) based tumor grade is important fo
xtraction and selection methods. Moreover, there is no gold standard for choosing the best methods. Therefore, this study aims to
technique. No research work studied the fabrication of samples in these dimensions (2 mm in length) and design. The samples ar
on resistance and several methods are used to process the material in addition to various alloying options. Although, Ti is biocomp
ile somatosensory inputs. There have been numerous studies related to tactile psychophysical channels and their properties. How
atically. The second objective was to determine the association between the similarity measure and neuropsycholog- ical assessm
was calculated as a ratio of the ablated site to the total affected site at various laser scanning speed values and output powers. A
, creates difficulties in surgical application due to its fragile structure. In this thesis, a biopolymer fibrin matrix was used as a carrie
omplex histological and cytological characteristics of tissue, FFPE slides often contain defects. Defects arise during tissue fixation,
Challenge were used in the study. There were several different tumor subtypes in the other group, most of them being chromoph
have been drawing attention in the last decades because of their multifunctional structures. The major limitations of these nanocar
veral experiments performed by one participant. The VR platform simulated anterior/posterior sways which were conveyed to the
the neurons and their microenvi ronments. Multi-compartment microfluidic chips are one of the most developed systems used for
bservation and practice. Recent developments in deep learning technology have made it so that erroneous diagnoses of seizure a
applicability and accessibility for prosthetic device users. The aim of this study is to develop a Recurrent Neural Network system to
n is believed to improve gait, by increasing the length or velocity of the spastic muscle. However, hamstring muscles that may not l
urgery. Such crouch gait is presumed to originate from shortness (i.e., contracture) and/or slowness in lengthening (i.e., spastic ity
C), the layer formed around the surface of nanocarriers by the adhesion of plasma proteins when nanocarriers are injected into the
been developed. These algorithms work via extracting unique and non-redundant features from EEG signals. However, the majorit
ed compounds. There are various types of polymeric materials that can be natural or synthetic according to their source for the pro
of-the-art in the treatment of motor symptoms in advanced PD. The standard practice is to stimulate the subthalamic nucleus (STN
s thesis is to examine the relationship between topography and surface-cell and surface-bacteria interactions. The secondary obje
on of tissue and cell structure and biomolecular components is essential for the diagnosis of diseases under the light microscope. I
nd limited penetration of light to the deeper tissue which prevents the killing of all cancer cells. As a result, cancer recurrence is in
interval increases, producing output which is less uniform. To reduce this effect, positively skewed distributions have been implem
very. PEI ensures increased endosomal escape thanks to the proton sponge effect. However, PEI is known to be highly toxic beca
periments to measure detection thresholds around 250 Hz modulation frequency at the thenar eminence (TE) and at the index fing
d responds to sequential sensory inputs. This understanding can help drive progress in the development of haptic interfaces and th
and unsupervised sorting algorithms, calculates thresholds variably, and can be used for real-time studies when applied on FPGA
ve dual targeting opportunity by hosting both MNPs on their membrane and drugs in the core. Therefore, the overarching objective
on error is important for maximizing the accuracy of this diagnostic technique. In this study, we examine the effects of different data
using craniometric and anatomical structures. Topology optimization and light-weighting were performed using the Voronoi and ho
s high demand for highly skilled healthcare providers proficient in time-sensitive emergency interventions necessitates innovative a

this thesis a microcomputer based system which analyses electrocardiogram continuously, and records only the cardiac arrthymia

explained by means of block diagrams. The computerized forms of these units which are widespread in developed countries and th
enomena and models proposed by other investigators is made and a model which seems to explain it is proposed. In order to test
tandards until 1984 are investigated. The biomedical devices and the hospital equipment manufacturers are investigated. T.S.E St
ted, and various service options are discussed. In addition, data from service carried out in selected hospitals and original equipme
een done to computerize and establish databanks of birth certificates, police records and other information. The purpose of this th

e tissues and processing it properly, one can obtain the image of the body on a given plane. Due to the metabolic structure of the
a single surface EMG channel is discussed. The results obtained in performance tests are given. Suggestions for future research t
tment. Recently, however, the therapeutic limitations of the infrared diode laser have been more precisely understood, while at the
biofeedback monitor is a system which enables the therapist to analyze the data obtained during and after a biofeedback session
help of polynomial approximations to the modified Bessel's functions, numerical values for velocity profiles and volume discharge, a
rs. Then a quality assurance programme has been implemented in a private clinic for a period of one month. Both studies indicate
licine practice and their standards are overviewed in the next section. As a case study, a performance test of a scintillation camera
h gives far less complicated results for easy interpretation. Similarly, the asymmetry studies can be made on non-split brain patien

l over the world, will comparatively be presented. Some special ventilators developed will be shown in the study, explaining the tec
undary detection algorithm used is the one developed by G.T. Herman et.al. Standard computer graphics methods are used for dis

ssion about the different types of control systems of arterial pressure in the human body, and their usefulness. A systems analysis
attributes, such as page rolling, are provided. New features may be included by updating the system software only.
Dynamic measurements of arterial blood pressure or electrical conductance in a portion of human body are necessary in order to s
3-D images. The modular structure of this package allows further expansion. The hardware used in this project is an IBM PC and
, and pulsed at a rate of 15 Hz. The EMNF is inductively coupled to the left leg of canine rabbits, for increasing of healing mechan
herefore, anyone in the hospital may use it quite easily iii) It can be adopted to any other Public Hospitals of Ministry of Health By u

KF). EKF algorithm seemed attractive because the algorithm used, gives the estimate for the evoked signal simultaneously, witho
nce notes and papers published by the developers of the systems. The systems are reviewed in an order that demonstrates the ev
try. PROLOG has been used as the programming tool in developing the system because it is much more powerful and efficient tha
d.Pacemaker implantation techniques, reuse of cardiac pulse generators, infection after implantation and a new method for transv
er the introduction, in the second chapter, Clinical laboratory techniques, procedures and instruments along with their principles ar

uarded electrode configuration is sleeted, and by using 32 electrode elements, 16 guarded electrodes are formed in a cylindrical pa
ctures. The aim of this thesis is to present three major data compression algorithms and implement them for radiological images o
anagerial structure of health centers were studied. In the fourth part, the health services of the health centers according to the Dir
, EEG has been described system. Based on the state-space representation of the model, a Kalman Filter for the observation of th
ith external magnetic field. Actually they process about the axis of the external magnetic field at a frequency that depends on the s
for up to eight channels is also possible. The software is designed to allow user to examine data as soon as acquired, in compress
fier and computer circuits obtain a digitized data from this sensor. A microprocessor (M6802) based controller circuitry accomplish
to evaluate the prototype device for accuracy and sensitivity, the results are compared with those obtained from the commercial o
ies a through review of the work in this field and suggests an inexpensive access to FFT analysis of the EEG using the system the
no find an heart beat in a predetermined time interval. The ECG data can easily be recorded on floppy diskettes when required. Th
bjects are not enough known. Standards are tied to ergonomics and safety. the right applications of standards will improve the qu
D.P.H. Penetration tests utilizing an 78.5 mm^2 indenter produced the penetration strength values changing between 1.99 MPa a
the treatment of various diseases. The interaction of a specific laser emission or wavelength with various ocular tissues can be d
ose and optimum model of a complex for assisted reproduction in Turkey, which can be adapted to future innovations. Therefore t
a minimum of two anolog low- pass filter settings and a 50 Hz notch filter, leaving most of the signal conditioning to the digital com
e Map (S.O.F.M.) and perception algorithms. The S. O. F. M algorithm imitates the ordering of sensory pathways and the high leve
er interface. A method based on parametric modeling of prestimulus EE period and post stimulus EEG-EP period of evoked potent
better than 120 dB at mains frequency. An 8-bit A/D Converter digitizes the ECG signal at a sampling rate of 250 Hz. Tachycardia
mmon usage of original or processed image data is targeted. After examining the mathematics of most important and widely used
irst part of this thesis is a comprehensive review of what has been done so far in this area. A first attempt to restore the function of
ed. The fungi types to be tested has been incubated in equal environmental conditions. The analysis of the odors of specific fungi
gical sections were examined to relate the results with the microstructure. The overall results of the study reveal that the human sk
voxels, the main tasks are determination of the object in the tomographic volume (segmentation), determination of the visible parts
e mentioned goals, respiratory sounds heard over the chest wall from the specific locations were recorded. The flow signal was als
ate the parameters of the network. The model obtained using pre-stimulus data has been used to forecast post-stimulus signals. T
train characteristics, contractile element can not be uniquely defined. So that, the representation of contractile element is required
n both atrium and ventricle) multiprogrammable external pacemaker includes ten pacing modes and nine pacing parameters which
CG compression techniques. The aim of this thesis is to compare the direct ECG data compression techniques such as AZTEC, T
corded by serially stepping around adjacent electrode pairs. 208 voltage measurements are made for one complete set of projecti
ctrodes. Electrical impedance changes are correlated with weight changes actually measured. Electrical impedance measurement
ments by the software using the SVD technique. Clear fetal ECG patterns were detected by the data sets of two subjects who were
ontroller card with Intel N87C196KR for data acquisition, audio-stimulus generation, filter selection and amplifier controls. The syst
nverter) and 7-bit digital data is transferred to the computer memory using DMA (Direct Memory Access). So, the data acquisition
ose, the region of interest is divided into small discrete triangular elements. 3-layer, 56-element mesh structure and 16 peripheral n

.nd tendons would be of interest, leading to some relevant conclusions. Mechanical parameters such as maximum load, elongatior
|uency that hip and knee prostheses and osteosynthesis materials were used in the operations performed at the orthopaedics thro
lowever, can easily be duplicating chest electrode amplifiers. The electrical safety of the system is obtained by means of optical isc
mation System, still under development, will be installed at the same hospital in the near future. Apart from widely accepted require
epping around adjacent electrode pairs. Data collection synchronization is achieved using R-wave detection. After each R-wave of
ng rats). Histological observation of tissue around the coated samples showed a higher degree of response than the uncoated 316
3.x. It has been written in both C and Pascal programming languages. The knowledge base of the system consists of medical knov
ıs, white noise, custommade narrow-band noise and placebo were used. The duration of tinnitus varied from one to 30 years (mea
light source to investigate the possibility of imaging the surface pigmentation and topographic variations of the surface, and monit
as the valve sounds, or sounds from some external sources. In this thesis work a special instrumentation system for the acquisitio
ulent flow in partially occluded arteries. Recently, experimental systems that make use of the heart sounds for non-invasive detect
npedance analysis on 10 subjects who participated in the third week of Kaçkar 94 Expedition. Kaçkar 94 Expedition of Boğaziçi Ur
ements must be performed at several frequencies in the range from 10 kHz. The hardware system that is constructed supply 8 dif
ounds of the subject, environmental noise and flow rate of the breathing of the subject were recorded simultaneously. Although voc
rom 86 normally hearing and 22 hearing impaired human ears. First the normality ranges are determined from a population of 86 s
Zircon mixtures were prepared. They were pressed at 350 kg/cm2 in tablet form, in open air and sintered at 1680oC Microhardness
g structure. The algorithms are implemented on a IBM compatible PC and compared for their rate of convergence. Their performar
e algorithm, some typical EGG abnormalities are simulated and analyzed. The analysis results show that the algorithm gives accu
pto-isolation is advantageous since it is immune to nonlinearity and gain instability effects with which analog isolation suffers. The
nverter, and an IBM compatible personal computer (PC). Signals produced by the newborns' respiration and body movements are
in separating the echoes from moving blood cells from the much stronger echoes derived from the stationary tissues which surrou
indrical plexiglas test cell is designed for four electrode measurement technique to avoid electrode polarization errors. All measure
ented to support visual processing is a simple mobile robot, called APES. Design specifications and the vision system of APES are
bit. It has been shown that, there is a suitable basis for image reconstruction based on the thermal activity of the skull, whereas it
e about the membranes used for haemodialysis and the blood-membrane interactions. In this study, stereomicroscopic evaluation
The vectorcardiogram discussed in the thesis enables the physiologist to monitor the three VCG projections of the spatial vectorc
syndrome, T wave, ischemia and creation of ectopic beats are simulated. In short, this kind of single cell study contributes to the ur
f this study is to determine the characteristics of murmur generated in aortic stenosis. For this purpose a special instrumentation s
e systems were subjected to a metallurgical characterization. The studies involved metallographical preparations, microstructural a
nly an echogen band and behind it an acoustic shadow can be obtained with ultrasonography. As the results of the 47 examinatior
and to analyze failures of some retrieved implants. The first part of the thesis contains the results of a survey according to the res
rts of the joint, but also acts as a shock absorber that protects the bones to be broken under high and sudden loads. Both for the r
ls, and are incapable of curing the disease. Masking the tinnitus sound is one of the most successful non-invasive methods of copi
n of electrical resistivity over the different regions of the body, such as thorax. Direct Sensitivity coefficients matrix method is used

g the procedure are complex, subject to error, and the calculations require the use of a computer program. For this reason during t
hysical or chemical means. Adaptation of tomographic imaging modalities such as MR (Magnetic Resonance), CT (Computer Tom
n those measured with the "open collimator" in order to isolate the pencil beam dose distribution. The spatial spread of a pencil ele
was measured for high-frequency electromagnetic fields, particularly for those emitted by digital mobile phones. An automated PC
bone, would be bioactive to produce a strong mechanical bond, and would be tougher than bone, so that in the case of trauma, th
be a natural part of the contemporary 32 bit environments, and provides the user with a user friendly graphical user interface. The
rrors. In this work, an overview of the Turkish primary care system is given. A gradual and low cost solution to the problem of patie
er steps to automatically adjust sound levels during pitch matching and during the individual tailoring of the masking noise to avoic
afe for patient use, a procedure performed by a water treatment system which is composed of a series of devices for water purifica
stem. It is simple to use even for the novice users who know little about computers. When the patient data is entered, a rule- base
opagation, early stopping and 10-fold cross-validation are applied. The total data set is divided into 10 subsets. Eight of these are u
detect and monitor the occurrences and the tumescence of erections and gives valuable clues concerning the psychological and/c
ated by using MRI. Phantom studies were performed within the temperature range of 30°C-50°C to determine the optimal tempera
not previously used for pattern recognition applications. The objective of this study is to use Fractal Modeling techniques for EMG
lion US dollars. But, these new designs of biomaterials have resulted in new problems apart from their practical use. The study wa
electrodes. The measurements are repeated every hour for each dialysis patient. The data obtained are correlated to the measur
composites have many advantages in dentistry. The results show that abrasion rate was decreased significantly in all groups with a
t through gold plate electrodes and measures voltage by means of stainless steel point electrodes. A blood volume of 2.6 ml is rec
feedback and electrical stimulation have long been in clinical use. The therapeutic benefit of electric stimulation method in compar
been introduced. Both the government and public grow ever more insistent that the medical community must justify and minimize t
representation in the globus pallidus interna, relative to lower limb joints. A standardized 3 dimensional model was also proposed
language, CLIPS. The knowledge base is formed from medical reference books and experts' personal experiences. This knowledg
en performed on the samples and the Vickers indentation responses of alumina reinforced PMMA composites have been studied.
dissipated through the resistance of the metal, producing heat. The aim of this study is to investigate the temperature rise due to m
a mask where the beam replicates the mask shape onto the cornea. LASIK is a double surgical procedure involving cutting of a co
nference and hydrostatic weighing (hydrostatic weighing was performed only before exposure to altitude) measurements were use
ocessor tool, because microcontrollers have some superiorities upon microprocessors. These are integrated structure which incluc
rect concatenation of speech segments fails to achieve good intelligibility. In this study, the Time Domain Pitch Synchronous Overl
fication stages. While at the output of the first stage, there is an analog high pass filter with 0.2 Hz corner frequency, at the output
for epilepsy and schizophrenia are compared, and the records of Alzheimer's disease are ordered according to their D2 values. T
image of resistivity distribution is reconstructed using the Finite Element Method. The aim of this thesis is to develop a graphical s
w morphological analysis methodology named as KOZ is developed for agglutinative languages and a Turkish morphological analy
ined on any MR image independent of MR hardware characteristics. One such important hardware limitation is the varying sensiti
cords and which will be worn easily as a dental prosthesis to provide a speech rehabilitation method to the laryngectomees. The c

at alters the stimulus generated in order to achieve a desired signal inside the ear canal. Such a calibration shall create a standarc
ve and difficult to appreciate. In many cases the mechanism(s) causing tinnitus are unknown; however, frequently some form of he
udden vertigo, ischemic retinopaty, aseptic bone necrosis and many other diseases of ischemia. ?Creating a handy and reliable vi
nerous advantages, from being practical to being more hygienic. The aim in this study has been to develop quantitative methods fc
nonitörlerde, arşivlenmesinin elektronik arşiv sistemlerinde yapılabilmesi ve dağıtımının da network bağlantılarıyla uç kullanıcı term
ctional tool for academic research and for statistical analysis. PATHOS has been developed using MS Visual Basic 6.0. It employs
for detecting early breast cancer, even before a lesion is palpable. Because of the malignant mass pathology, the shape of the ma
edically intractable or refractory epilepsy. For victims of intractable epilepsy it is vital to detect this condition and the location of the
small error or a delay in the obtainment of the laboratory results. In this thesis, a Laboratory Information System (LIS) has been de
ensive review of the available data on EM radiation safety standards and electrical properties of human tissues was added. The ele
server architecture to run on local area networks and allow to be used from different locations inside the anesthesiology departme
to electromagnetic radiation of the mobile telephones. We also simulate EM field of mobile phone with helix antenna and compare
ons are known to produce high birth defects and other birth defects such as patient characteristics, lack of proper medical resourc
nt ESWT with 1500 (Group I) and 500 (Group II) shockwaves/treatment at a generating voltage of 10 kV on their right femurs; left f
ng the reliability and efficiency of the acquisition process of respiratory sounds is aimed. For this purpose, a system with two separ
ne the motor output of the superior colliculus. In this project we used two powerful techniques to investigate the intracollicular circu
the thesis. The developed automated technique was used for the alignment of six brands of upper and lower perforated metal tray
d to achieve the analysis of tongue motion during the utterance of four syllables with a B- spline parametric motion field technique.
l views, namely, to zoom them, to span in the zoomed one, to scroll through atlas overlays and CT images, and to place the overla
mine possible alterations of evoked potentials in young volatile substance abusers and to show whether evoked potentials might s
A 30 W UV lamp is turned on during the night for 12 hours. After UV measurements are then done using the same procedure. For
ay and processing toolbox, called 3DVIEW, has been developed for the 3-D visualization of human tissues using the MRI/CT data.
of application. The main objective of the thesis is to present a theoretical and experimental studies involving bacterial growth in liqu
HARP) analysis and synthetic tags are computed over the myocardium. The data is normalized to perform a comparison between
of the population shows at least one of several signs of temporomandibular joint dysfunction (TMJD). The cause of TMDs is gene
ent today for cavity preparation. In this study our aim was to compare the advantages and disadvantages of the cavities prepared
portant cause of mortality and morbidity. Bone mineral density (BMD) of the patient is measured by 6 months, 1 or 2 years period a
ne classification of healthy and two-class pathological lung sounds which are acquired using two microphones on the chest wall alc
eighboring phones) are trained and used. Enhancement techniques such as obtaining a large sound data, further training of HMMs
ns that cause abnormal vocal fold vibrations by changing their mass and/or length or by manipulating the framework structures in t
solution to the problem of patient information management is proposed, which makes use of the widely available Internet services.
o analyze the epileptic EEG data using correlation dimension and nonlinear prediction algorithms for the detection/prediction of sei
oil detachment system was developed by considering magnetic-based and nitinol-based approaches. The nitinol based coil detach
e diagnosis system, based on Motorola's 56311 Digital Signal Processor (DSP), was used to design an instrument capable of clas

al exercise will be facilitated. For this purpose, ten healthy female rowers of the Turkish National Team were selected. SEMG recc
nd characteristics of the embolic events are determined by an extensive band pass filtering analysis and the optimum band is dete
c) and electrosurgical unit (1.5mA/20sec) in Wistar rat brain tissue, the thermally affected protein content after stereotaxic neurosu
and Hematoxylin and Eosin staining. Thermally altered areas were determined and classified under microscope. Dimensions of th
n. High-Q morphology dependent resonances are very sensitive to the refractive index change and microsphere uniformity. These
ğınık iletilen ve toplam iletilen ışık şiddetleri tek toplayıcı küre tekniği kullanılarak ölçülmüştür. Elde edilen deneysel bilgi soğurulma
n concentration and temperature in the degradation method. As temperature increases» solutions of lower concentrations gave sh
s not being approved for use with infants in non-clinical settings and low temporal resolution. Optical imaging fills this gap by being
s work with computers to form images, which provide data and information about the imaged area of body. The importance of Mon
of this study is to differentiate the time-frequency components that are related with specific cognitive operations (i.e. signal discrimi
ree design variables, which represent the length, the thickness, and the sharpness of the prosthesis stem. Two-dimensional finite-
ieters during functional brain activation where neurovascular coupling is a generic term for changes in cerebral metabolic rate of ox
evaluate our model experimentally. The contraction of the muscle against different pressure values was measured for several diffe
ised voice, as triggered by work conditions, noisy environment and daily habits. P- VOCAD is designed to overcome these diagnos
experimentally been shown that Shc/Grb2/SOS/Ras/Rafl/transient MAPK pathway, activated by NGF-stimulated TrkA causes mitc
n electrical Dipole Source localization. The forward problem which is an essential part of source localization is solved by both the a
sing of mobile communications equipment. In this thesis, we studied the near field electromagnetic radiation of mobile phones (by
decades. The recording of vibration provides a good teaching, learning and documentation material. The resulting image data ha
haviour of individual cells to be controlled by signals emanating from other cells. One possible scenario is the down flow of the exte
d at the Radiology Department of a 240 bed private hospital in Istanbul area. Data are collected for a period of fourteen months, fc
imaging, because the myocardial tissue provides few natural features for motion tracking. The tagged cardiac MR image analysis
sis work is to generate an easy to use simulation environment that models the biochemical pathways of the brain cells when they a
and 11th days of irradiation, the proliferation of 30 sec laser irradiated group's was statistically higher than that of 10 sec laser irra
itional functions for image contrast manipulations, region of interest selection, movie creation have been integrated in this toolbox.
ing spectra from the dielectric and semiconductor microspheres are experimentally obtained and morphology dependent resonanc
otrophic factors secreted by their target structure, the hippocampus. It has been suggested that mammalian neurons contain colch
been recently proposed for this purpose. In phase contrast magnetic resonance imaging (PC- MRI), each pixel (voxel) contains th
sonance (MR), Intensive Care Unit (ICU) and physiotherapy equipments can be primary source of electromagnetic pollution. The a
muscles, provide support, improve muscle strength, and improve or normalize motor development. Accepted current practice to in
d desired performance. Performance evaluation and quality assurance testing for the x-ray units are implemented with phantoms,
gnal optical receiver and amplifier circuits are used and acquired by a commercial digital acquisition card by the help of Labview pr
s study shows the registration results of 5 different modalities; T1, T2, PD - weighted MR, PET and SPECT images. The slice inforr
e technology is controlled through software, the flexibility of virtual instrumentation is unmatched by traditional instrumentation. The
g popular first order Born approximation method. Then we will give simulation results of the boundary measurements in human bre

or challenge to researchers. Understanding the importance of the pathways involved in angiogenesis, we have aimed to design a l
l sex. It was found that there are differences between the outputs of this study (Turkish norms) and system's current normative dat
uscle during exercise evaluated via sEMG. In the study, twelve healthy male subjects, comprised of trained and less trained or sec
electrical activity either invasively by placing electrodes on serosal lining of the stomach or non-invasively by using electrodes loca
genous contrast agents, such as gadolinium chelates (for filtration and perfusion) or iron oxide particles (for perfusion). In this thes
using a contactor surround in order to enable comparison with population models of mechanoreceptive fibers in the literature. Since
n sleep. This M.Sc. thesis is involved with the development of a prototype of a compact wireless optical imaging system (WFOI). V
s improvements in other diagnostic techniques such as ultrasonography, CT and MRI. Recently, a significant study on PCG was co
were developed whose goal is to find the locations of the three-dimensional (3D) intracerebral activities by solving an inverse prob
ed store and forward (nearly real-time) facility that consists of a base unit and a telemedicine (mobile) unit using a commercial mol
afe and reliable use of medical equipment. In this thesis, blood pressure and gas flow measurement in medical fields have been fo
migraine patients and healthy subjects by measuring their cerebrovascular responses during breath hold task by using functional n
attered back from the tissue. Cell nuclei may be modeled as Mie particles that are larger than the wavelength of illuminating light. C
interaction. Thus different power levels and exposure schedule were investigated. Dorsal sides of all animals were photographed f
aft failure can be caused by technical mistakes during manipulation of the heart and at the level of anastomoses. The evaluation o
use (TW2) method. We chose the TW2 method to develop a computerized bone age system because it is more suitable for the co
out pressure signals; obtain flow, volume and time based ventilation data; and to display both of the measured data at the user inte
peutic purposes. In this thesis, a high power 809-nm diode laser system was designed and manufactured. System was consisting
ange due to thermal effects during laser therapy, knowledge of optical properties of brain tissue coagulated at different temperatu
es BMD to define osteoporosis. As a result, BMD is an important risk factor, and among other things, has been used in the diagno
sult of these experiments trials K-means is chosen since it provided the best performance and reasonable computational load. The
possibility of calculating quantitative values for O2 consumption and blood flow using simple physiological interventions such as *a*
cally be detected by overnight polysomnography studies, but these studies do not give information about brain hemodynamics and
nize the collimator parameters of a scintimammography system to achieve better image quality by using Monte Carlo Simulation a
uctal carcinoma in situ) are good candidates for MRM. Resolution of the breast imaging is important for improving differentiation be
elevate the threshold of P channel. Results were compared to NPI channel thresholds of adults at 40 Hz. To enable comparison v
ox (finite-element model diffusion approximation to the radiative transfer equation) and experimentally using continuous wave coh
stages of the chronic open angle glaucoma, contrast sensitivity changes are seen earlier that visual field and optic nerve head ch
l nerve to the swing phase of the gait cycle. This thesis presents a portable, two channels, functional electrical stimulator that was
nalyzed to obtain the retinotopic fMRI parameters. Visual areas, BOLD signal changes and cortical magnification in primary visual
nge through a new generation Dental Composite, from 0 to 8 mm, in 1 mm increments, It is observed that the light intensity falls by
complexity. Two wavelet transform based compression methods, one based on discrete orthonormal wavelet transform (DOWT) a
y children (8 males, 7 females, mean age 9.6 ñ 1.2) participated in the study to perform STSmotion in three conditions: (1) with no
tional polymorphisms of genes encoding glutamate receptor 2A subunit, (NMDAR2A), GAB receptor gamma-2 subunit (GABRG2)

tended to manufacture porous orbital implant by a novel and simple process. The amount of porosity and pore size of implant is tri
some orientation other than its canonical one, the observer might compensate by an act of mental rotation. The viewpoint depend
is asked to detect the tactile stimuli applied at certain time intervals. Therefore, tactile temporal processing was tested here. The t
sequences of hippocampal dysfunction. Therefore the main objective of this thesis work was to develop an artificial neural network
nold for each mode (CW or modulated) were found. Maximum irradiances and maximum energy densities were recorded. For best
on directions to reconstruct fiber paths. The conventional approach is to use integration techniques, i.e. to follow the principal diffus
ims to reduce the gap between patients and experts (cardiologists) and allows for the rapid diagnosis of acute myocardial infarctio
medical services targeted to it. The system consists of an embedded communication software along with a TCP/IP based sever sc
is water maze to assess behavioral despair and navigational ability respectively. Histochemical evaluation revealed lower acetylch
nsuming. Recent inclinations are towards facilitation of neural networks in similar cases. An Artificial Neural Network could be train
hile, acts as a regime to educate the muscle by extending the sarcomere to its full length and lining up the extracellular matrix (pre
tors assembled using tiny discrete crystal elements identified by position sensitive or multichannel photomultiplier tubes. However
l resolution, they also have caused many complications such as, reduced light collection (low packing fraction), labour-intensive us
ximal five sequential action potentials. SA units had longer and sustained activity during steady pressure on the receptive field. Tw
d by many parameters like contrast, form and motion velocity. In this study, effects of flickering frequency, duty factor, size and lum
of Boğaziçi University. By searching other related international standards, minimum documentation requirements are determined:
and inverse problem, aims to compensate for the head volume conduction effect and enhance the spatial resolution of the EEG. C
The tests on the prototype showed that the accuracy and precision are both below 1% in the diagnostic range. As the same meas
opropriately communicates with the remote devices and provides plotting of electrocardiogram of a selected patient who is preregist
cavitation plays an important role are the destruction of urinary calculi by application of extracorporeal shock waves, the noninvasi
teral. It was observed that ceramide application resulted with depression among the NMDA currents. On the other hand, there was
esults when breast abnormality is less than 1cm. The collimator plays an important role in image construction. This study aims to m
- Pacinian I channel were determined. The masking stimuli were applied before the test stimuli to find the masked thresholds at 40
ubjects is performed both in frequency and time domains. In frequency domain analysis, frequency intervals in which power spectr
ge of milliseconds. However, due to limited number of electrode measurements and some modeling failures, it can provide limited
e (MPH) is known to reduce hyperactivity in individuals with ADHD. Yet little is known about how it alters neural activity and how thi
manufacturing of pixilated crystals and to reduce the cost. In this study, the detector is composed of 49 mm x 49 mm continuous
l energy consumption of flexor digitorum superficialis (FDS) muscle during isometric contractions performed at various muscle len
sue. For these applications, tactile sensors can provide objective, quantitative, and consistent measurements. The tactile feedback
nents: the objective is to ensure availability of high quality blood components for transfusion. A management model and a managir
ical use of these MSCs has presented problems. Current results indicate that adipose tissue can be a novel and abundant source
n acoustic science. However, the deeper structures in the hypopharynx below the hyoid constriction have not been well defined in
curately is the essential part. Different methods are available for measuring tissue temperature resulting from absorption of laser e
entive maintenance and calibration management, analysis and graphical representations. A password protected, user friendly web

Hz and 30 to 46Hz are applied one subject in one fMRI scan session. The acquired data is analyzed to obtain the BOLD fMRI para
ring characteristics of PC obtained from neurophysiological data may be observed in the finite element model of PC or not. Static
ly in prefrontal cortex. In this study, fNIRS was used during a Stroop task to investigate the differences in oscillatory dynamics bet
re no such components manufactured. Whereas, the use of fiber-coupled sources and detectors have allowed the investigation of
ent concentration- time curves were obtained from the measurements. Then, singular value decomposition (SVD) method with co
endons of extensor digitorum longus (EDL) muscle as well as at the tied distal tendons of tibialis anterior (TA) and extensor halluc
o improve the quality of imageguidance and to achieve minimally invasive interventions. In XFM, pre-operative MR images are seg
mal aponeurosis of extensor digitorum longus (EDL) muscle of rat. Length–isometric force characteristics of EDL distally and prox
eted temperature monitoring system with sufficient capabilities would enable focusing, localization, thermal dose planning, collater
ive during cognitive task requiring working memory performance. Functional near-infrared spectroscopy (fNIRS) is an optical imag
eneity may cause segmentation algorithms to fail for a specific imager system. In case an algorithm that can be used in many imag
complex. Nonlinear techniques were shown to be useful in analyzing nonhuman primate vocalizations. Deterministic versus stoch
py, fNIRS), heart rate and systemic oxygen saturation (by pulse oxymetry) measurements were performed during four consecutive
Muscle lengthforce characteristics, sarcomere length distributions and muscle geometry of multiple aponeurotomy cases were com
eased, to determine the effect of cognitive aging on PFC hemoglobin oxygenation and to analyze the lateralization index of young
perceived synchronously. The hypothesis was tested by modifying a particular task in the literature. The stimuli were filled squares
moother surface morphology was seen in virgin fibers. Big deep holes due to pore merging, more elliptical pores and defects were
hanical stabilities of virgin and user-processed fibers were investigated by tensile tests consisting of monotonic and cyclic loading.
ciples of magnituderatio and phase-difference detection. The system is built with a DDS frequency generator, a voltage controlled
Dashboard systems gather and display KPIs in a centralized system for supporting quality improvement processes. The Ministry of
sure. All animals then underwent a 15-min Forced Swim Test (FST) starting at 14:00 in the next light phase of the L/D cycle, follov
ng the experiments, the subject performed knee extension and flexion movements with different angular velocities. In this way, pea
e electromagnetic spectrum and measures the changes in the intensity of the light. This M.S. thesis is focused on the development
tudies reported successful welding dose for different infrared wavelengths. Different laser wavelengths were studied comparatively
Monte Carlo Model are used as a source term in heat conduction equation. Thus, in small time steps by doing iterations of Finite D
NIRS). 16 healthy subjects (5 male, 11 female) and 16 migraine patients (4 male, 12 female) participated in the study. Subjects we
mplemented the computer assisted TW2 method, then we compared this method with reference to widely used method of G&P us
the brain in healthy subjects. Damage to these prefrontal regions, results in response inhibition deficits and also have been linked
lp patients monitor themselves or the clinicians monitor their patients for any kind of abnormalities. With the help of these automat
s thesis, we deal with the inorganic portion of the bone, treated with and without antiembolic agents. 16 Wistar-Albino male rats we
t hemispheres are compared as well as the frontal and the occipital cortices in terms of electrical activity and the hemodynamic re
and noise-shaping to trade-off operation speed for amplitude resolution. In this study the theory and advantages of sigma- delta c
ethods are proposed in the literature for tissue segmentation of brain MR images. Among these, Otsu thresholding, ML estimation
lp was not explored adequately due to technical difficulties. Dependency of the evoked somatosensory response to vibrotactile sti

the rabbits. The device moves the eyelids by magnetically pulling the steel pieces. The control group (n=5) did not wear the device
enerated and then it is filtered by switched capacitor filter for narrow band noise. Warble tone is frequency modulated signal. Freq
evels by von Frey hairs calibrated at 0.16, 0.4, 1, 1.4, and 2 g-bending forces. The effect of serotonin was tested at concentrations
ialists, on the presence or absence of a lesion. Then ROC (Receiver Operating Characteristic) curve analysis is carried out in orde
myofascial force transmission can play a role in afferent signals generated in muscle sensory organs. The goal of our present stuc
after treatment ceramic brackets needs to be debonded from the enamel surface. Debonding may be unnecessarily time consumin
trol charts, central to SPC, are used to visualize and analyze the performance indicators over time. In this study, SPC principles we
some days. This observation led him to postulate that the metal of the end cap, namely titanium, had properties that could be valu
s. Main console and sub-modules were programmed with Borland Delphi 7 which is object oriented programming language based
h the arm and the end-effector are designed in this study. In addition motor drive circuits of the end-effector were designed. Contr
d C (controls, sham treatment) groups. At third and sixth week after fracture, high resolution Bone Mineral Density (BMD) analysis
one, and myoelectrical activity in patients with diabetes. The main pathogenetic factors in diabetic gastroparesis are vagal autonor
its effect on the glutamergic transmission. For this purpose, CA1 pyramidal neuronal response upon low frequency stimulation of
can view the functional image overlayed onto the anatomical ones, visualize the activated regions and edit DICOM SR accordingly
e used besides carpal bones and finally, the results are investigated. In this study, real data sets have been used. This study is imp
esn't have the desired soft tissue contrast. MR imaging on the other hand provide 3-D anatomic imaging with excellent soft tissue c
xygenation and blood volume with respect to time. For this purpose, 10 healthy volunteers participated and measurements were ta
oe selected rst. Electroencephalography (EEG), Magnetoencephalography (MEG) and Functional Magnetic Resonance Imaging (fM
was used to study the factor effects. The excessive players had significantly higher skin conductance uctuations than non- excessiv
e breakthroughs in the last decade in terms of its image quality and archiving modalities abnormalities in the body are better obser
ocesses become more of an issue. The aim of the study was to develop a medical device maintenance management software whi
im cytokine biomarkers and to determine biological and clinical predictors for patients at high risk to develop AD. 28 AD patients ar
npus. Therefore, in this study, the effects of C2-ceramide (10 μM), C2- dihydroceramide (10 μM) and sphingomyelinase (30 mU/m
cases were studied: Proximal half passive, middle half passive and distal half passive. Strain and stress distributions and length- t
f active force at low lengths are seen. However, whether preconditioning does minimize the history effects or not, has not been inv
locations (Location P, I and Location I-D) for multiple loading cases on EDL muscle model of rat with extramuscular connections.
healthy male donors between ages 22 to 28, and centrifuged at 5500 rpm for 8 minutes to constitute different hematocrit values i
crobiological sampling. Microbiological sampling and particle counting techniques are applied in five operating rooms located at thi
Slicer uniquely integrates several facets of image quided therapy into a single environment and has capabilities for visualization, su
nedical grade LCD monitor with a remarkable cost advantage. The second was to test the hypothesis for a significant difference be
thod developed in this study, isometric length (knee-angle)-force characteristics of human spastic Gracilis muscle are measured in
vention, additional soft tissue information could decrease the risk by providing important extra guidance to the surgeon. For instanc
Therefore, when a hearing aid is in use, expected results are mostly not achieved if the calibration is done without wearing it. This p
orption than shorter wavelengths and may have some advantages for EVLA due to water molecules in the vein lumen cells. Howe

brations were applied perpendicular to the skin of adult rats. Single-unit responses were recorded from sciatic nerve. Five different
retention condition required the subject only to remember a visually applied stimulus whereas the manipulation condition to visuall
on of the parameters. As an alternative, a Bayesian approach can be used to assess the data based on the posterior probability dis
re accurately. In this thesis, we develop a software tool to help the neuroradiologists inperpret the stroke region more accurately by
cts were right handed. Gender and age were balanced. The sighted were blind- folded through the experiments. Two tactile L-shap
y less than other X-ray imaging techniques, its cumulative effects could be harmful in the long term. Main aim of this thesis is to se
ration, debonding method used. There was a control group that had no laser application. The efficiency of the laser was investigat
ented to improve the image quality. In-silico phantom experiments was employed to evaluate the parameters that affect the image
wo different approaches: Lasing without cooling and with cooling. For the first approach, according to the whitening of the enamel
EEG electrodes was quantified via mutual information in the time- frequency plane. A spectral clustering algorithm was used to pa
mpedance measurements were obtained. On the microscope images, morphometrical measurements of the skin layers were perfo
ture. This degenerative event takes place at the first week after injury. These two critical points gave rise to the question of this stu
refrontal cortex (PFC) of 12 healthy subjects during a stroop test. Mutual information was used as a metric to determine functional
ing techniques.In this thesis, an ABR detection system has been implemented. Experiment procedure was designed using auditor
healing times, including the application of direct current, elec- tromagnetic fields, pulsed electromagnetic fields, ultrasound and lo
nvenience of fNIRS to extend the understanding about these disorders. This study aims to present reflections of different PFC relat
o the concentration of the component being tested for. Recent analysis of test strips is perfomed via refractometric devices of the
etworks. A Bayesian network is a graph-based model of joint multivariate probability distributions that captures properties of conditi
y pulse duration, pulse repetition frequency, beamwidth and output power has a quantifiable impact on signal amplitude, imaging s
anoindendation. A template mimicking the collagen type II bundle alignment, geom- etry and size of healthy human cartilage tissue
s evaporated- 24 h) were investigated to obtain best mimicking conditions. After characterization of BSM-PLA scaffolds by scannin
ethod is inaccurate. Instead of using color charts, color of the stored blood can quantitatively be measured by analyzing the spectru
he psychophysical thresholds were repeated for three conditions: no movement, slow self-movement (0.1-0.2 m/s), andfast self-m
ere used on ovine tongues in this study for comparative purposes. Both lasers were applied in contact to the tissue, which was com
Low concentration of oxygen radicals or low level light may cause cell pro- liferation with some biochemical pathways instead of th
erabilities in the current hospital information systems. The regula- tion criteria in Turkey and counterparts in USA and EU are com
w cells which are taken from the patient. In this context, in order to fabricate desired tissue cultures, many efforts are going on dev
gene expression patterns. At first, we make a statistical analysis over randomly generated genetic networks, based on their oscilla
ve agent for AD and mild cognitive impairment (MCI) from an optimized auditory oddball task fMRI data via functional connectivity
test which are utilize to obtain cognitive flexibility on decision mak- ing, attention and planning. Functional Near Infrared Spectrosc
n amino acid conjugated self-assembled molecules [Histidine-Self Assembled Molecule (His-SAM), and Leucine-Self Assembled M
absorbers at different wavelengths are calculated by using a Modified Beer- Lambert Law (MBLL). Depending on the aim of the fNI
on of the degree of FA without doing a CT scan. 23 children with CP participated. Human gait analysis was performed using the Vi
acent tissues.Thulium fiber laser was delivered to lamb liver tissue samples via 400 μm flat-cut bare-ended tip fiber in contact moc

ɔrecise current without being affected by load resistance variations. Modified Howland current source converts voltage signals to d
ease pain that may occur after injuries, KT is used during treatment. Numerous studies assessed the effects of KT over pain, rang
naging (DTI) was utilized to reconstruct 3D muscle fiber architecture. Use of such multi-method approach and specifically designe
ɔ. However; the remarkable problem with medical grade monitors is its high cost. In order to find the solution for decreasing the co
Obstructive sleep apnea has mostly been treated by oral appliances and continuous positive airway pressure (CPAP) devices whi
zation, fuzzy minimization, bone subtraction, cropping can be some steps of preprocessing. In this study, the main object is to eva
I brain tumor data resources shared for academic usage as well as brain tumor patients from Baskent University Hospital. We obt
ɲ, feature extraction and classification. In this study, we aim to optimize each step in order to improve the overall accuracy through
ne functional groups conjugated amino acids (for Au; histidine, leucine, serine, tryptophan, for SiO2; histidine and leucine), respect
resting state metrics and performance in the n-back task were computed to investigate the optimal topology. The results revealed
nuous and pulsed- modulated modes) and exposure time were applied. Pre-dosimetry study was conducted to determine coagulat
study, a DC hyperpolarizing stimulation with a subsequent exponential decay was employed to block the conduction of C fibers of
on APA/Ti surface were performed by using hydrazine monohydrate treatment. In order to enhance further surface bioactivity, Fm
ɪser system for developing low profile "active" interventional devices for cardiovascular procedures under MRI. The proposed 4 axi
sing a similarity metric namely mutual information(MI), every query compares to all other query in database. According to their simi
wo approaches (1) inter-individual variability, addressing several methodological challenges: We and that MD activity - which varies
fe guidewire was constructed using nitinol rod segments less than a quarter wavelength of RF transmission at 1.5 T within the bod
s work attempts to analyze the effects of different denoising and contrast enhancement techniques by using real CLSM images wit
cquired at 3T. CBF maps were calculated with arterial blood volüme (aBV) correction using the quantitative imaging of perfusion u
19 patients with PD-MCI and 21 patients with PD-CN were included in this study and neuropsychological tests were performed. M
ould, bovine femur surface was mimicked by using Polydimethylsiloxane (PDMS). A biodegradable polymer, Poly (L-Lactic acid) w
its use as implants. In this regard, this study involves the incorporation of Graphene Oxide (GO) into PLLA either electrospun GO
g its surfacetopography with chitosan, was hypothesized and proved to be achievable. In order to replicate sharkskin surface struc
e (Cys) was conjugated on GO in order to enhance biocompatibility. Initially, neat Al scaffolds were fabricated by ionic crosslinking
μm in depth which inspired from mostly hexagonally shaped corneal endothelial cells (CECs) were created on silicon wafer mold vi
s copied by soft lithography technique with using polydimethylsiloxane(PDMS). Human osteoblast cells (hFOB 1.19) were used to
erprinting is used in forensic medicine for identifying the suspects or paternity, it enabled also the development of molecular epider
efore, alternative non-metallic transmission line technologies such as acousto-optic transmission line has been developed. The ultr
ɲose effects is sarcomere length changes and their heterogeneity along the muscle fibers. Quantification of that for human muscle
distal tip of the needle is expected to provide accurate placement while the proposed biopsy mechanism can reduce the bleeding
e resorption. Furthermore, elastic modulus of PEEK is tunable by incorporation of additives. However, hydrophobic bioinert surfac
r male subjects (age: 25-30) participated in the experiment. Sinusoidal bursts of mechanical displacement were applied on the mic
leposition (EPD) at 30 V in 205 seconds. HA suspension was obtained by ultrasonic and magnetic agitation of 1 g HA in 35 ml isop
ical use, LVADs must be thoroughly tested in-vitro, commonly with Cardiovascular Mock Circuits (CVMCs), for safety and efficacy.

uim of this study is to determine the optimum sensor needs for an active ankle prosthesis and to develop an algorithm suitable for t
d 18 healthy controls (HC) were included to assess the structural differences. Diffusion weighted magnetic resonance images (DW
un impact on EMFT. The goal of this study was to test these hypotheses by measuring changes in total and passive forces exerted
these receptors within the associated cortex. In particular, differences between barrel field (S1BF), motor cortex (M1) and hindlimb
on extent are accounted for. The comparative photoinactivation of TBO and TBO/KI on E.faecalis was investigated by quantifying
ement at the tip of an prostate biopsy needle (18-gauge) is presented. The sensor is built upon an air cavity between two cleaved c
cutely. However, the long-term effects of HI training on the subjected muscle's stiffness is not studied extensively. Moreover, it is n
network and feed-forward neural network (FFNN)have been employed. Among multiple algorithms neuro-fuzzy network (ANFIS)
stimulated with slow, moderate and fast velocities (3, 9, and 18 cm/s, respectively). Affective state was measured with ultrasonic
rug may be gradually released from GO in physiological conditions which eliminates the need to apply high doses of the drug. Loa
trical double layer capacitance (Cedl) and solution resistivity (Rs). For this purpose, gold interdigitated electrode (AuIDE) is fabrica
(CA) of healthy mammalian brain possess an axon that is placed on the basal dendrite in many instances. This phenomenon is ob
aceurs are already expected to execute their habitual foot placement technique (FPT), FFL, more efficiently via favorable adaptatio
a longitudinal study. 33 PD-MCI, 27 PD-CN and 17 HC participated in this study. The participants were diagnosed by neurologists
nt light as well as to show the amount of eye fatigue at reading room (0, 50 lux) and daylight (500 lux) conditions using three differ
osteoporosis; whereas hip DXA results classified 30 women as normal, 15 as osteopenia and 3 as osteoporosis. Only 26 participa
Laser irradiation time was varied with respect to the selected power density to keep constant the energy density for the laser group
ne influence of the CAP treatment following with peptide conjugation to the NF surface was assessed using scanning electron micr
ysical phantoms only. In this study, an anthropomorphic phantom (Zubal Phantom) and a sphere as a parathyroid adenoma were s
tectability optimization with a SPECT Monte Carlo simulation for the first time. SIMIND Monte Carlo simulation program was used
custom made three lumen catheter (9 Fr) including a distal inflatable balloon in between the inflow and outflow lumen holes was c
lity of experimental data is still a major problem in this field. Computational modeling is a quite valuable tool in cardiac electrophys
called 'BreastIS 'was developed to analyze DCE-MRI, DWI, and 1H-MRSI and store them in a database for further exploration. Bre
osphate dihydrate (DCPD) are used instead of directly using HA due to low solubility and difficulty of shaping of HA. Calcium sulfat
acterized. Fourier Transform Infrared Spectroscopy (FTIR), Scanning Electron Microscopy (SEM), X-ray diffraction (XRD), Therm
nce of some cancer cell lines to PDT, it exhibits results with low efficiency. Therefore, there is an urgent need to overcome this resi
es for the failures, and the cost analysis for each failure. The user determines the frequency for the preventive maintenance accor
adiology, clinical depression affects radiologists because of working in low working conditions. With this study, it is aimed to increa
eration caused by Amyloid beta peptides. Two protocols were developed to use BDNF as an adjacent drug to a control group differ
iment was carried out with 2400 pulses and it took 4 hours. After stimulation, transcardially perfusion was applied, and their brains
ally of γ-aminobutyric acid (GABA), and structural alterations in the cerebral structures are believed to be play a role in disorder's c
uality of SLNs and find out optimal values of different parameters by using the design of experiments methods. The SIMIND Monte
pected to continue to increase even more in future years, as a new material used in this study instead of clinker ceramic waste (flo
s, effects of surface topography and surface chemistry were investigated by synthesizing magnetic particle embedded (MP) (0.5%

oy (SAM) and propose a novel and fast technique for measuring a variety of soft tissue phantoms. To our best knowledge, it is the
o-metabolite 2-HydroxyGlutarate (2HG) accumulates in tumor tissue. Detection of IDH mutation before surgical procedure could pl
form. MR images were obtained from a database named Minimal Interval Resonance Imaging in Alzheimer's Disease (MIRIAD) co
quiet, and robust pump design. Because various applications have their own specific pumping requirements, the search for applica
ve when excitation or receiving signal is necessary. The aim of this study is to design a dynamic FINE that can apply gradual press
consumed by local people as tea to treat rheumatic pain, gastrointestinal tract problems and the common cold. Previous studies s
lock as the labial surface. They were put in the gypsum block as parallel as possible. Then, the first step is the bonding of ceramic
efficacy of PDT on cancer cells with an 809-nm laser, which has higher optical penetration to biological tissues than other lasers us
the chest wall displacement, accurately. It is also cheap and accessible. Once the chest wall motion is captured, machine learning
vailable treatment opportunities are mostly related to stage information. More than 50% of patients with early-stage RCC are cured

lage occluder in order to prevent life-threatening complications. The proposed system allows to reduce LAA sac volume using a dis
ngth is comparable to that of healthy muscle and (2) how spastic muscle force changes as a function of muscle-tendon complex le
ıpts to discriminate between these objects. To simulate the effect of deformation in the cube, we modeled the cube as a mass-spri
ector system, where x-ray tube had a limited circular movement around isocenter. Algorithms are both used for simulation and phy
C) database is the most crucial point to consider. In that database, CT scans are evaluated by four different radiologists and their a
n capabilities to match different devices.The design of the simulator uses a mechanical air piston, which is air thigh, controlled by
layers on titanium surface. After modification of the surfaces by each of the amido amino acids, histidine and leucine amino acids
ghborhood. BCI systems combining the electrical signals from these electrodes use signal processing and machine learning algorit
ancer cells (MCF-7). The conjugation of ZOL (Sigma, 10 mg powder) and GO (Sigma, 2mg/mL) was obtained via mixing them with
trode material due to its intrinsic features such as high electrical conductivity and charge injection capacity, high mechanical streng
made with the help of machines that can be compared to simple hand tools. For this reason, it is difficult to adjust the bar accordir
exertion which have been attributed to the increased collagen content in the muscle Extracellular Matrix (ECM) confirmed by histo

wever, the cytotoxicity of SWNTs is still a challenge in this field. The goal of the study is to obtain biocompatible SWNTs to use in t
of all of their joints using only 2 motors by utilizing the correlation between proximal interphalangeal (PIP) and distal interphalangea
eased pressure applied to the pulmonary artery wall due to the structural changes of the arteries. During the fetal period, the fetus
olycaprolactone (PCL); (70/30 w/w)] blend polymer scaffolds by means of using a simple biomimetic coating process and also to d
chieve survival and axonal outgrowth of two cell lines, mouse motor neuron (NSC-34) and neuroblastoma (SH-SY5Y). The cells w
pace. In this thesis, electroencephalography (EEG) data collected for brain-computer interfacing (BCI) are used for classification us
nfiltrate along normal–appearing white matter (NAWM), where relevant genotype information might be available. Diffusion anisotro
between motivation and pleasure, two components of the reward system. This is in contrast to how the brain works which employs
d by many parameters during the formation of nanofibers with desired physical properties. In this thesis, coating of collagen nanofi
om a single port, without a need for new cabling. The design of iSAM is conducted as hardware development and programming. I
lata exist, but their optimal usage in a PAP control algorithm has not been elaborated on. Despite their benefits, normalization of th
e) and object-type (no object, hard object, soft object) classes were predicted as discrete events. Training of the models was perfo

invasive method which measures neuromuscular activity. The aim of this study was to develop artificial neural network models to p
ction was performed using CHB-MIT dataset which contains EEG data recorded at Boston Children's Hospital. Support Vector Ma
to achieve endothelization on the stent surface. To get faster these processes, some of the innovative, user-friendly, and non-inva
or the effective management of patients with ccRCC. Recent studies showed that CT radiomics can offer the means to predict this
o compare the sensor space and source space EEG data for emotion recognition using tensor based methods. In order to achieve
re printed at 190 ◦C temperature under 7.9 bar pressure with 0.1 mm/min speed. The fabrication of one sample took 9 minutes wit
patible by its nature, cell- material interactions can be improved by surface modification. It is known from the literature that the inte
vever, so far, a link could not be established between psychophysical data and somatosensory evoked potentials (SEPs) generate
nents. Therefore, we aimed to develop a new AD evaluation algorithm that can give an early diagnosis of the disease and define a
dditionally, the thermal damage at the surrounding tissue was evaluated with a thermal camera. To create an incision, laser light s
r layer due to the advantages it offers in terms of biocompatibility, non-toxicity, biodegradability, and benefit for cell culture. In orde
processing, embedding, microtomy, staining, and coverslipping. These defects are referred to in images as artifacts, a term which
obe or papillary RCC. Patient clinical data were combined with the radiomic features extracted from CT images. Features were ex
rier systems are the toxicity related to synthetic surfactants as well as undesired leakage of highly toxic drugs. In this study, a uniq
participant visually and/or by VTF. Visual experiments consisted of motion detection, angle discrimination, and angular velocity dis
axon isolation. In this thesis, the optimization of microfluidic chip produc tion has been carried out by changing photoresist types a
ctivity are occurring much less frequently and that significantly less time is needed to forecast when a seizure will occur. This stud
o estimate ankle power during level walking by using only surface electromyography (sEMG) as algorithm inputs. For this purpose,
be not short and slow before the surgery can also be operated on. The thesis aims to assess whether the gait of CP patients impr
/) of affected muscles and remedial surgery is considered to improve gait by increasing muscle length or its velocity. However, a th
e body intravenously. Since the PC structure identifies the nanocarriers' destiny in the body, it is required to be analyzed the protei
ty of the proposed algorithms employ temporal components of EEG signals while disregarding the rich spatial network structure th
oduction of the polymeric nanocontainers. Also, the combinations of different polymers are used to produce highly stable nanocon
N) or internal globus pallidus (GPi) continuously via surgically implanted electrodes. However, continuous administration of DBS co
ective is to determine whether it is possible to chemically alter implant surfaces and their topographical features to maximize cell-im
For this reason, histochemical, immunohistochemical, immunofluorescent and genetic techniques have been applied to tissues an
evitable. Gold nanostructures are good biocompatible carriers of PS. Increasing PS accumulation on the target site leads to the ef
ented. However, non-normal distributions cannot be generated with current number generators. Here, we have established a proc
use of molecular size and electrical charge. Gold nanoparticles (AuNPs) are attractive inorganic carriers with biocompatibility, eas
er in affected and healthy hands. In addition, 15 female CTS patients participated in a virtual reality-assisted hand exercise game
he enhancement of neuroprosthetic technologies designed to improve tactile perception. Epidural field potentials were recorded fr
boards. A template matching algorithm OSort, based on Euclidean distance, functioned as the base for this algorithm. We used th
e of this research is to develop pH-sensitive polymersome that interacts with Super Paramagnetic Iron Oxide Nanoparticles (SPIO
a acquisition parameters, namely the type of collimator, scatter correction status, and reconstruction iteration number on the quant
ollow patterns based on the areas with the most and least forces. The Voronoi pattern was used for the first time in topology optim
pproaches to training. The software developed for this thesis aims to facilitate this training process while paying proper attention t

ıs detected. This system supplies immediate information to the cardiologist as well as being less expensive than other methods.

heir advantages are also explained. The characteristics that the hospital's electrical network must have in order for the desired CC
t the predictions of model, an experimental setup and a methodological approach to conduct the experiment is presented and sugg
tandards related to medical devices are given in tables. Finally, testing procedure on medical devices produced in Turkey and for ir
ent manufacturer's representatives in Turkey are provided. In Turkey, there are fewer engineers and technicians in biomedical eng
ıesis is to establish such a databank in Nuclear Medicine. This system is meant to be used by all physicians (both Nuclear Medicin

tissues, different signals are obtained which are dependent on certain parameters like relaxation times T1 and T2. These acquirec

same time new prospects for its utilization have appeared. As we gradually come to understand its action mechanism, the laser b
by means of a digital computer. It can also be used by the patient for any kind of biofeedback treatment. Collected data related to
and finally cardiac pacemakers such as stroke volume, cardiac output, cardiac index, vascular resistance evaluated. Continuous m
a need for quality assurance programmes in Turkey in order to increase diagnostic image quality and decrease unnecessary radi

ıts. This thesis aims the computer based study of brain asymmetry in non-split brain patients for brain asymmetry. For this purpose

hnical considerations and clinic applications. The last chapter of the thesis involves the design and function of the supplementary
splaying 3D objects. A grid technique is introduced when performing the scan conversion. Same of the results obtained by using m

providing the core of the simulation is developed. The related algorithms and procedures are discussed. The user interface of the

simulate the mathematical model by means of a microprocessor system, especially designed for this purpose. Physiological param

ısing this computer program the user can-store and make changes of patient records. - get information about services, personnel

ut requiring extra computations. To test the results, a VEP data acquisition set up was realized. This set-up consisted of a physiog
volution of the methods they employ for imitating the decision-making mechanism of human experts. The outcome of this survey p
an most other well-known programming languages. The user enters the results of conventional tests into the computer and the sys
venous lead explanations are handled in the third chapter. The following chapter gives statistical information about the implanted ca
e explained. The study results of clinical laboratories of thirty-one hospitals in Istanbul are mentioned in the third chapter. These re

attern. The electrode system is embedded into a saline solution tank for simulating a conductivity medium. Image processing is rea
n a PC, using the MS DOS (Version 3.3) operating system and the Turbo PASCAL (Version 5.0). The original and reproduced ima
ective No. 154 of the Ministry of Health were studied. In the fifth part, the reconsolidations on health policy of a country are presen
ne system's state have been utilized which yields optimal estimates for both activities. The properties of the proposed method has
strength of the field. The object in the external field is said to be temporarily magnetized. If the magnetized object is then exposed t
sed or normal forms, with ability to select different channels to be displayed in one screen. The software is user friendly and can b
es data communication with a host computer (IBM PC) and controls X-axis and Y-axis motor s in the scanner. The sc and density

e clinician already owns, with the addition of an inexpensive computer system. It is possible to use a Commodore 64 computer with
he system can also be used as a cardiological diagnostic tool since it can automatically detect the P, Q, R, S and T waves and cal

nd 35.91 MPa with an average of 7.39 MPa for cancellous bone. High correlation coefficients between CT values and penetration
ivided into six distinctly different tissue changes associated with: 1-Photocoagulation therapy, 2- Photodynamic therapy, 3-Photova
he details of different phases of in vitro fertilization, embryo transfer and of the related innovations are supplied, the current status
puter. The amplifier comprise an electrode impedance check facility to ensure better signal acquisition. It also involves a stimulus g
l of organization created during learning in the human brain. In the present thesis digital white blood corpuscle images were proce
ial data, is developed to find out the descriptors of a combined EEG-EP model explaining the trial-by-trial variability of EPs to the r
a and Bradycardia alarm limits are manipulated through the software. It is also possible to use the system for direct blood pressure
basic image processing algorithms, different implementational issues is evaluated in order to include best solutions to a given ima
f the paralyzed eyelids is described in order to prevent dry eye syndrome and blindness due to eventually developing keratitis, infla
has been performed using the E.O.C. in the test room, in which the temperature has been kept constant and the relative humidity
kin shows an anisotropy of three dimensions; i.e. its mechanical properties vary with both directionality and thickness.
of this object at a desired orientation and 3-D display of the resulting data on a 2-D monitor. The technical aspects of 3-D imaging
so recorded by a flow meter to synchronize on the inspiration and expiration phases, because the characteristics of respiratory sou
The forecast errors have been interpreted as the EPs. The EPs thus obtained have been compared favorably with those obtained
l. Predefined representation of contractile element with a non-linear viscous damper and displacement generator in series, is used
n can be selected by the user. For that purpose Intel 8085 microprocessor and its peripherals are chosen. The hardware consists c
urning-point, SAPA1, and SAPA2 and implement them off-line on a PC, using the Turbo C (Version 2.0). For this purpose the EC
ons. The measured values are transmitted to the computer where they are digitized and stored in array form. These data can be u
s are performed on the patient, at intervals of 15 minutes, during abdominal surgeries, to detect the instantaneous body fluid losse

em has two selectable analog low-pass filter settings, a 50 Hz notch filter and also has a 1 kHz audio signal generator.
rate is only limited by the CCD and the computer performance. The system is designed around an IBM compatible PC/AT. Electro
nodes (electrodes) are used to simulate the resistivity distribution for known circular and elliptical regions. To solve the inverse prob

ı, ultimate stress, strain to failure, stiffness are compared among various ligaments and tendons of the knee joint. In preconditionir
ughout Turkey in 1991. Responses received from a total number of 102 orthopaedics clinics also demonstrate the causes and the

ements of HIS, three distinctive features of this study are; (i) Integrated HIS approach through database administration, (ii) client-s
f the patient's ECG, 13 voltage measurements are done for a specific current-drive position, and total data collection is achieved ir
ü L surgical stainless steels. This higher degree of response was attributed to the presence of foreign bodies around the coated im
wledge involving illness-symptom relationships which were established from questionnaires and archive work. The inference engin
ın of 4.5 years). 26 (26.5 per cent) patients were satisfied with reassurance, examinations and investigation of tinnitus, requiring nc
toring the subcutaneous layers of tissue by means of an experimental setup. The experimental tissue to be scanned was divided ir
ın of diastolic heart sounds is developed and physically realized. The system consists of two passive sonic probes, two sound char
tion of CAD have been the subject of active investigation by some research groups. In this study, we intended to improve on the pı
niversity Skin and Scuba Club (BUSAS) lasted for three weeks on Mt. Kaçkar (3412m.). The data was, collected before, during anc
fferent operating frequencies ranging from 10 kHz, and number of these frequencies can be upgraded up to 16 with the theoretica
cal cords and oral cavity produce interfering sound signals, trachea was selected as the precise location to acquire the diagnostic l
subjects for amplitude and latency of DPOAEs. Classifiers such as the K-means and Artificial Neural Network techniques have bee
s tests, X-ray diffraction, chemical analysis, SEM studies and subcutaneous tissue reactions (using rats) were performed. In in-vivc
nce is evaluated in terms of the Mean Residual Error (MRE), the Integrated Mean Square Error (IMSE), Distortion Index (DI) and tl
ırate results and can be used to analyze the real EGG data. The algorithm is also used to analyze the real EGG data and it is conc
system developed has electrode impedance check and calibration check utilities. Two selectable analog low pass filters and a 50
e continuously recorded using the PC for three hours at a sampling frequency of 10 Hz. The output signals are then converted from
und the capillaries. In this thesis, a system which has been designed to measure low blood flow velocities is described. A 2.25 MH:
ements are performed on the HP-4284 A LCR-Meter and a special preamplifier is built for sample connection in the true four electr
e described in detail, with experimental demonstrations. Successful results are obtained for real time performance on a simple rec
is more difficult to do the same thing directly from the head-skin. Auditory potentials, evoked at certain specific sites of the animal'
, scanning electron microscopic (SEM) evaluation and tensile testing of the dialysis membranes have been performed. Besides th
cardiogram onto the frontal plane, the transverse plane and the sagittal plane. The data can be recorded in a file and several differ
nderstanding of the underlying ionic currents in the action potential and ECG waveforms, and also guides new modeling studies.
system developed in the Biomedical Engineering Institute of Boğaziçi University is used. The system consists of a PC equipped wit
analysis, energy dispersive spectrometer analysis and measurements of potentiostatic examinations. The results are presented in t
ns on the patients which have been performed in the Orthopaedics and Traumatology, and Radiology Departments of the Istanbul
ponses from 12 orthopaedics clinics. The type and frequency of hip and knee arthroplasty operations and their complications caus
eplacement of damaged cartilage and for the production of long-life, stable total joint prostheses, the properties of the natural hum
ing with the tinnitus. In order for the masking method to be acceptable and successful, the masking sound should be individually ta
to reconstruct the dynamic resistivity distribution of body. A circular region model, with 8 layers- 208 square elements mesh struct

the last years there has been a proliferation of simplified approaches to directly calculate the Kt/V. However, this fact, instead of si
nography), to stereotactic techniques have enabled precise positioning of target location. Localization of target is usually accomplis
ectron beam in air is, as predicted by the Fermi-Eyges Theory,is Gaussian whose variance is a function of the mass angular scatte
C-controlled test setup was developed for testing. Setup consisted of a GTEM cell where high frequency fields were generated. Dra
ne material which fractures is the bone, which would repair naturally, rather than the implant material. These requirements can be r
e software developed is applied to two groups of signals: 1) Signals, whose D2's are known a priori- a sinusoidal, a Henon map, ar
ent information management is then proposed, which makes use of the widely available Internet services. An Internet based Distrib
d over-stimulating patients with excessive sounds levels. The next step is the tinnitus frequency determination step in which the tin
ation. The adverse effects of inadequately purified water are potentially serious, and have tragic, even fatal, consequences. The o
d system operates to reach optimal conclusions. Patient data, probable diagnosis etc. can easily be checked and changed by the
used for training the net. One of the remaining subsets is used for validation and the other is used for testing. All the possible comb
or metabolic factors that can lead to sexual problems. The PTM has been designed to be both biologically and electrically well with
ature sensitivity and resolution by testing various Ti weighted MRI protocols. The three best MRI protocols were also tested within t
pattern recognition and compare these results with those of Autoregressive (AR) Modeling which is a conventional method. For thi
s designed to try to paint a picture of the use of orthopaedic biomaterials in Turkey and try to assess its share in this vast market,
ed weight changes of the 30 hemodialysis patients. To improve the weight loss estimations, the calculations are repeated for segr
alumina. All groups with silane-treated alumina showed more or less the same wear in comparison with other groups with non-silan
quired for each measurement. Blood volumes were drawn from 9 healthy donors using sodium heparin as anticoagulant, and dilute
rison to certain therapeutic exercise methods is a mostly controversial subject, however. On the other hand, electrical stimulation is
he costs and possible risks of diagnostic tests. A number of seemingly independent indices are studied for evaluating diagnostic p
in order to define the somatotopic organization of kinesthetic cells methodically. An evaluation by the utilization of this model dem
ge is represented by "facts" and "rules". The type of inference engine is forward chaining and it goes from facts to conclusions. De
It is found that, the hardness of the composite is time-dependent. There is a general decrease in hardness with the increase in tim
metal implant and MRI interaction. For this purpose we have prepared a phantom, which comprises a metallic implant embedded in
rneal flap and an excimer photorefractive procedure where the beam is delivered into the stroma. Both pre and post-operative cor
d to determine the correlation with BIA results. At sea level, all measurements and corresponding equations showed a good correl
les processor, ROM, RAM and interface, and having restricted instruction number. This suggests efficiency and comfort in design
Lap Add (TD-PSOLA) algorithm is used as the concatenation algorithm, which provides smooth transitions at phoneme boundaries
of the second stage, there is an analog low pass filter with 2 kHz corner frequency. 50 Hz line noise is filtered by using digital filter
he analysis is repeated for several sweeps and channels of each signal, and a statistical approach is taken to discuss results. Bef
software interface for the EIT reconstruction algorithm by collecting and arranging the codes previously written in Turbo Pascal. Th
yzer is implemented with this technique. Among the different techniques of morphological analysis, KOZ is the only one that makes
vity of an imaging coil spatially. Segmentation algorithms can not distinguish between an intensity variation caused by the imaging
circuit of this system is first setup on a breadboard. A prototype of that system is manufactured using micro-components and mour

dized stimulus inside every ear canal, and thus reduce the intersubject variability of measurements such as click evoked otoacoust
earing loss accompanies tinnitus. There is no known cure for tinnitus, except for a few cases of disease symptoms or pathological
iscosimeter will be very helpful for both researchers and clinicians that try to investigate the relation between elevated blood viscos
or surface EMG to be used in neuromuscular diagnosis. Spectral analysis and AR modeling tools have been applied to EMG data
ınallerine ulaştırılması anlamına gelir. Bu tanım, genel anlamda Resim Arşivleme ve İletişim Sistemleri (PACS) olarak adlandırılır.
MS Access database tables, integrated into Visual Basic 6.0. Its open relational database design allows importation of other datal
ammographic mass can be used to discriminate between malignant and benign masses. In this study geometric parameters such a
lesion causing it as early as possible. Since the hippocampus has long been known to be extremely sensitive to seizure induced
esigned which will help reduce such errors to a minimum, improve accuracy and speed of the laboratory results obtainment proces
ectrical properties of the tissues are generally frequency dependent. Thermal properties are, in contrast, fixed and can simply be a
nt. The application supports multi user environment, and saves the data on a central PC. The software, resulted in a faster and ea
e them with the actual measurement results. The near electric field measurements of mobile phone antennas are carry out at labo
es, poor education and lack of standard protocoles. In order to find the optimal patient care and improvements, one must have exa
femurs were used as controls. At the end of the ninth week, animals were sacrificed. Both femurs were examined using X-Ray, co
rate telemetry transmitters placed on the body of the patient and a remote receiver connected to a PC is developed. A radio freque
uitry: Brain slice technique and patch-clamp technique. It is well known that the superior colliculus receives dense acetylcholinergic
rs of different sizes with 170 lower and 170 upper arch cast models collected from patients having Angle Class I type occlusion wit
In this study, two-dimensional displacement analysis of the surface points and three-dimensional compression/expansion analysis
ays on their proper locations on sagittal CT image. One of the most powerful features of ACTR is its independence to zooming fact
erve as an objective marker of early neurological damage. For this purpose, a volatile substance (mainly toluene) abuser group wh
the Sedimentation Method a total of 660 petri dishes are used; half of them containing Nutrient Agar for coccus and Bacillus, and
. The 3-D rendering and visual ization are performed via the OpenGL library routines while the basic image processing routines an
uid suspensions and solid surfaces and its prevention (disinfection) by different application of different forms of antibacterial silver:
different myocardiums having various tag lines and time frames. The aim of the normalization is to eliminate the shift, scale and ro
rally accepted as multifactorial in origin. One of the clinical conditions is characterized by TMJ sounds (clicking, popping and crepit
by using these two techniques in terms of the physical surface properties they cause when applied on the tooth tissue. The observ
and the doctor decides on the future of the therapy. Quality Assurance is very important in bone densitometry because, little amou
ong with the air-flow signal. The inputs of classifiers are organized using two different methods, 'even-odd partitioning' and 'leave-o
s, usage of triphones from radiological corpus and fine-tuning with special coefficients are applied. Various tests are performed on
he vicinity of the vocal folds that indirectly affect the vibration quality, by changing their length, stiffness etc. Unfortunately, long-te
The distributed system will store the patient records on a central database server if appropriate permissions are taken by the patie
izure onsets. For this purpose, EEG recordings from three patients were analyzed. The channels used for each patient have been
ıment system was found reliable, inexpensive and instant detachment mechanism after the in vitro tests. Reducing the size of the
sifying lung sounds into two classes: healthy and pathological. The instrument has two inputs the first of which is from a microphor

ordings were obtained from the muscles Vastus Lateralis (VL). The fatigue test with 80 % Maximum Voluntary Contraction (MVC) c
rmined as 4.5-8 KHz. A nonlinear Teager operator and and adaptive thresholding is also applied to the filtered DUA for automatic
urgery was investigated by Sodium Dodecyl Sulphate Polyacrylamide Gel Electrophoresis (SDS-PAGE). The effects of both types
ose areas were quantified. The parameters indicating thermal damage were defined as the degree of structural change considerin
tiny optical cavities, whose diameters may vary from a few to several hundred micrometers, have resonances with reported Q- fa
ve saçılma kat sayılarını, albedo ve anisotropi faktörlerini hesaplamakta kullanılmıştır. Bu hesaplama için Lambert-Beer ve Invers
horter reaction times. Deproteinized bones were cabined at 850°C for 8 hours, ground, sieved to get particle sizes < 300 urn. Infra
completely non-invasive, portable, unobtrusive, low-cost, and robust to motion artifacts. This M.Sc. thesis is involved with the dev
nte Carlo simulation in nuclear medicine imaging is increased by recent developments in nuclear medicine instrumentation and pro
ination, motor response task, motor response inhibition, and context updating) in the auditory ERPs. For this purpose, by making s
- element models of the implanted and intact femora are created with the material properties and loading conditions obtained from
xygen (CMRO2), cerebral blood flow (CBF), and cerebral blood volume (CBV) related to brain activity. The aim of this study is to u
erent load masses. The proposed model requires computation of actual forces involved in the motion generation of the muscle. The
stic limitations by monitoring the voice for extended periods that last days to weeks and uses advanced electronics technology. It h
ogenesis and FRS- 2/SHP2/Crk/C3G/Rapl/B-Raf prolonged MAPK pathway activated by NGF-stimulated TrkA causes differentiatio
nalytical and numerical methods. For the inverse problem, the Multiple Signal Classification algorithm (MU SIC) algorithm is used.
using a signal generator at about 1 800 MHz), EM effects on blood brain barrier (BBB) and the temperature effect in unhealthy ra
s a clear and magnified image of vocal folds allowing clinician to compare pre treatment and post treatment status of vocal folds. E
ernal signal through mitogen-activated protein kinase (MAPK) to result in the transfer of quiescent cells into GI phase of the cell cy
or eight most commonly applied interventional fluoroscopic procedures using Philips Multidiagnost III machine. Statistics of exposu
is composed of several stages: Segmenting the left ventricular (LV) myocardium is the first stage of the image analysis where inn
re stimulated. The ultimate goal is to investigate the relationship between the hemodynamical signals measured by functional opti
diated group. But according to the results, 670-nm low energy laser irradiated fibroblast cell proliferation was not statistically highe
In the second part of the thesis, automatic contouring of endocardium is achieved for cine cardiac TRUEFISP images. These con
es are observed. Biosensing applications of semiconductor microspheres were studied both experimentally and theoretically. Exp
nicine4ike endogenous molecules, which in time could cause neurotoxicity. Male Wistar rats were injected colchicine (n=6) or salin
e velocity information, specifically the phase of the pixel (voxel) is directly proportional to the velocity of that tissue. This is achieve
aim of this study is to investigate the existing levels of electric and magnetic fields in a typical Turkish hospital and to compare the
nprove the gait of CP patients includes orthotics, botulinum toxin, physiotherapy, exercise, and surgery. An alternative and new ap
properly designed test objects, with tissue substitute materials. The purpose of this study is to design and produce a specific phar
rogram. The system also includes an MR-compatible projection system, subject response button and screen-mirror system that is
mation is collected for volume reconstruction and a 3-D Registration is implemented. Thin-Plate Splines efficiency is studied accor
e aim of this work is to design a user-friendly interface that can capture and display current ECG, respiration, GSR signals simulta
east tissue hosting an optical anomaly. We used PMI Toolbox for our simulations, which was developed in Photon Migration Imagi

biologically significant in silico model of the individual cell signaling pathways within the signaling tumor mass and recipient endoth
ta in kinematics and kinetic data concerning all three planes of movement, especially in transverse plane. Additionally, these two n
dentary individuals, exercised unloaded squat with the knee angle at 70º flexion from full extention until fatigue set in. Both fNIRS a
ated on the skin of the abdomen. Compared with the development of other surface electrophysiological measurements, such as El
sis work, an integrated renal perfusion analysis method is presented, which allows multi-slice animation of renal perfusion images,
e the Pacinian (P) channel and NP I channel have similar vibrotactile thresholds at 40 Hz, a forward-masking procedure was used
NFOI is composed of a probe that houses inexpensive photodiode detectors (PD), LED working in the near infrared spectrum, a L
nducted by Y. Bahadırlar and H. Ö. Gülçür [2]; they developed a system which is composed of a specially designed multi-sensor p
lem. However, scalp topologies constituted by multiple sources which makes the inverse problem more complicated. The overall c
bile phone and an external little capture card. Essentially this will allow the transmission of two vital biosignals (3 lead ECG, Body T
ocused on and a "Pressure and Flow Measuring Equipment", has been developed. This prototype instrument is, presently, capable
ear infrared spectroscopy. The subjects' responses are modeled using Gaussian functions and the obtained model parameters of
Cancer Scanner system is based on Mie theory and it uses elastic scattering spectroscopy method to differentiate cancerous tissue
rom the date of surgery until they were sacrificed. The clinical examination - opening of wound and presence of infection - was not
of the graft flow and perfusion by means of thermal image processing may be a method to detect the graft failures during the opera
omputer analysis than the Greulich and Pyle method. We developed the web-based TW2 skeletal age calculation software. We the
erface window. Also a mechanical adult lung simulation system has been adapted in order to give the occasion of evaluation at sta
of 809- nm high power diode laser module with 10 W output power, current source unit, current sensor, switch mode power suppl
res should also be known for surgery. During this experimental study, optical properties of cerebellum, brainstem, cortical (grey ma
osis of the disease, selection of treatment strategy, and evaluation of treatment efficacy. Since DXA technology has become widely
e results from automatic analysis using K-means is compared with the expert segmentation results (done manually by an experien
arterial or venous occlusions. This M.Sc. thesis is involved in analyzing the temporal relation of O2 consumption with Hb (deoxy-he
l tissue oxygenation. Functional imaging of brain by near infrared spectroscopy (fNIRS), gives chance to measure specific biochem
nd the Response Surface Method. Two software packages have been used for this purpose: SIMIND is a Monte Carlo Simulation
etween benign and malignant lesions and for refining treatment strategy. Inhomogeneity of the static magnetic field or secondary m
with population models of mechanoreceptive fibers in the literature, the studies were performed using the terminal phalanx of midd
erent light. Increasing the light power simultaneously increases the measured photon fluence, more importantly its effects on distri
anges. The usefulness and benefit of contrast-sensitivity testing include uncovering the hidden loss of vision not apparent through
designed and developed to assist drop foot patients during walking. The device has two independently programmable constant cu
cortex are determined for each week. The results obtained are quite stable. Observed changes are discussed which might be inve
y exponentially in the composite, leaving only 15% of the light entering at the top surface in 4th mm and 5% in the 5th mm. With a
and the other based on wavelet packet transforms are studied in detail. Decomposition, uniform quantization, and entropycoding a
o back load (2) with a back load of 10% of the body weight (BW) and (3) with a back load of 20% of the BW. The motion was perfo
and dopamine receptor D2 subunit (DRD2) with auditory ERPs. EEG recordings and genetic analysis of 72 Turkish male healthy

ed to be controlled through varying amount of naphthalene addition. Here, it is proposed to make the implant slight in weight as we
lence in visual and haptic object recognition were studied analyzing whether the correct response times are changing with the orie
tactile stimuli were applied both actively and passively, and the correct judgments of the subjects were recorded at both conditions
model that in many ways behaved like the hippocampal region. For this purpose we have used the corticohippocampal model of (
proposed doses histological analyses performed and thermal alteration was observed. For modulated wave, the effect of the dura
sion directions. The goal of this project is to introduce a new technique for estimation and visualization of fiber tracts. The propose
n (AMI), commonly known as heart attack. This will consequently decrease the time span between the onset of symptoms and trea
oftware for a GSM based ambulatory ECG device. Both, the software components running on the ECG device and the communicat
olinesterase (AChE) content in the hippocampus of some of the lesioned animals compared to shamoperated control animals as a
ed and considered as a decision support system for gait analysis. In this study a neural network is trained for classification of four
dominantly, the collagen fibers) in the line of action. This M.Sc. thesis is involved with the analysis of the effect of warm up and str
using narrow, pixilated crystals for higher resolution causes several problems including inter crystal scatter, light collection difficult
e and increased costs. In this study, to overcome these limitations, the feasibility of using a continuous crystal instead of block or
o kinds of SA units were distinguished; one group of SA units (SA type I) generated irregular discharge pattern at a gradually decr
minance of the monocular image on binocular rivalry were tested. It was expected that the rivalry percentage would be decreased v
: besides a draft Laboratory Quality Manual, draft documents such as policies, procedures and instructions are prepared within the
Given the known electrical field and head volume conductor properties, the EEG inverse problem estimates the location and magn
suring principle applies for mammography unit, this device can be also used for kVp measurements of mammography units. The a
ered with the software. The client device, carried by the patient, includes an ECG amplifier circuit which also includes necessary a
ve ablation of tumors, localized drug delivery, and improved drug uptake by tissues. Unfortunately, the energy transfer during cavi
s not any significant influence on non-NMDA currents. The role of C2-ceramide which leads to the depression on the NMDA curren
nake a robust design of the breast scintigraphy system collimator to obtain a better image quality in small breast lesions (<1cm) by
) Hz. In the final set of experiments, suprathreshold stimuli were used to find magnitude estimation values. These values fit power
um estimates of migraineurs significantly differ from healthy ones, are obtained as 0.01-0.03Hz, around 0.13 Hz and higher than (
spatial resolution. fMRI provides satisfactory spatial resolution for imaging of these processes but it lacks good temporal resolutio
is relates to its clinical effects. Functional Near-Infrared Spectroscopy (fNIRS) is a portable, non-invasive brain imaging method me
LSO crystal where its thickness changes from 3 mm to 24 mm with increments of 3 mm. The photosensor chosen is Hamamatsu I
gth and force levels. Nine healthy male subjects performed sustained isometric handgrip exercise by continuously pressing on a h
x may restore the lost tactile sensation as well. Determining a palpable suspicious abnormality needs continued monitoring and rec
ng software is developed for the quality control procedures of main blood products: erythrocyte suspensions, thrombocyte suspens
for adult MSCs. In this study, the effects of 650 nm and 635 nm diode laser on proliferation of human adipose tissue derived mese
the quality and the vowel production. This study aims to identify the effect of hyoid level and below on voice quality. 20 normal sub
energy. For deep measurement, temperature sensing probes are the most commonly used devices in biomedical applications. In th
o interface is provided for easy, universal and secure access to the system. The system is built over a workstation and controlled fr

ameters. Positive blood oxygen level dependent and post stimulus undershoot signal changes in the primary visual cortex are dete
and dynamic stimulations were given to the model as inputs to mimic experiments. Data from both model and experiments were c
ween schizophrenic patients and control subjects. Spectral analysis and dyadic wavelet transform were employed to quantify the c
cortical hemodynamics that lie underneath places covered with hair and also allowed the examination of the hemodynamic chang
nstant threshold is used on the arterial and tissue pixels. As a result, relative quantitative values of cerebral blood flow (CBF), cere
is longus (EHL) muscles in two different conditions: after distal lengthening of (1) EDL exclusively and (2) EDL and TA+EHL musc
gmented, 3D structure of target area is reconstructed from these segments, its 2D projection is overlapped on top of live images d
imally as well as the tibialis anterior (TA) and extensor hallucis longus (EHL) muscle complex distally were determined in (1) the in
al damage prevention and validation of treatment. First four of the above inherently need to be interactive, thus require real time m
ing method, which allows non-invasive in vivo measurements of changes in the concentration of oxygenated (HbO2) and deoxyge
gers is needed the difference in the tissue intensities and the RF coil inhomogeneity change may cause greater failures. To overco
astic (DVS) prediction technique is one of these methods which can be used to determine the amount of nonlinearity measure (LN
e maximal dry breath-holds. Breath-hold durations increased with consecutive trials in all the groups while the experienced free div
npared to the ones of single aponeurotomized muscle. It was shown that the intended acute mechanical properties of aponeuroton
and middle aged adults. The study included measurement of hemodynamic changes with Functional Near-Infrared Spectroscopy
s presented on a mid-gray background. The luminance of the stimulus was continuously incremented or decremented and the subj
visualized in used-processed fibers. Thus, easy crack initiation and propagation is expected in used-processed fibers. Tensile tes
The surface features and morphology changes were examined by SEM and AFM. The crystallinity of the mechanically tested virg
current source, two high frequency instrumentation amplifiers, a phase-gain detector and a microcontroller unit. The software for t
f Health of Turkey collects and measures several KPI's in order to improve quality and performance in health-care services. 'Patier
wed by a 5-min FST 24 h later. Analysis of variance indicated that exposure to either intensity of light delivered in the late but not th
ak torque values at different angular velocities were obtained during eccentric, isometric and concentric contraction of quadriceps r
t of a prototype Near Infrared Spectroscopy instrument. This instrument is based on the Continuous Wave Near- Infrared Spectros
y in the present research. Diode lasers (809-nm and 980-nm), a fiber laser (1070-nm) and a Tm: YAP lasers (1985- nm) were usec
Difference Method thermal gradients are measured inside a tissue. At 1064 nm fluence and thermal contours of brain and liver tissu
re asked to perform mental subtraction and answer verbally to 3 sets of questions with increasing complexity. Performance, work l
ing the criteria of accuracy and speed, and lastly we studied how learning and practice affects speed of bone age assessment. We
to several neurological disorders like schizophrenia and autism. Schizophrenia is a psychiatric disorder that associated with gener
ted systems, there is a big contribution to early, quick and efficient diagnose of the heart diseases. Based on this need, this thesis
ere used for the study. Scanning electron microscopy and X-ray diffraction technique were applied in order to reveal the effect of a
sponse. The stimulus locked ssVEPs are time averaged in order to increase the signal to noise ratio and the power of the resulting
converters are introduced. Low-pass and narrow-band band-pass sigma-delta modulators are designed, examined and analyzed. A
and MRF model based methods are the ones that widely used. Moreover, 2D segmentation of True-T1 and True-T2 images almo
muli, the frequency following response, is a phenomenon in which the human brain has a tendency to change its dominant EEG fr

. The treatment group with external implant (n=4) and the treatment group with internal implant (n=5) made to wear device and tes
uency modulation is implemented by Voltage Controlled Oscillator. All the obtained signals are made suitable to output apparatus
s: 10 μM (n=8), 100 μM (n=7), 1000 μM (n=6). The responses were analyzed as spike rates. Paired-t test was used to test the sign
r to determine the effect of compression at different ratios in terms of lesion detectability. The area under the curve (AUC) equals
dy was to test this hypothesis by measuring the afferent firing rates of antagonistic muscles of the lower leg. Gastronemius muscle
ıg and damaging to the enamel if performed with improper techniques or carelessly. There are several methods for debonding orth
ere incorporated into. NET Framework on MS Windows to design and develop a control system for biomedical engineering departr
uable in the construction of dental implants. In order to test his hypothesis, Branemark and his collaborators began a series of exp
on object Pascal. While current sub-modules were programmed with Delphi, it's possible to include future applications which are c
ol interface of both units, the arm and the end-effector were implemented in hardware and also in software. While serially articulat
s, bone scintigraphy and radiographic examination with a mammography device were performed to subgroups (RT3, C3, ve RT6, C
mic neuropathy and, interstitial cells of cajal pathology. Slow waves and spike activities are the well-known components of stomach
Schaffer collateral (0.1 Hz) was recorded by patch clamp tight-seal whole cell recording technique from CA1 pyramidal neuron of
y with the image references. Lateralization calculation is automatically done and displayed on the user interface. Maximum Z value
portant because a very simple and efficient method by using all 7 carpal bones is developed for assessing the bone age of childre
contrast. Our aim is to fuse 2-D X-ray images with a priori 3-D MR volumes during medical interventions to assist physicians. X-ray
aken from their prefrontal cortex during the experiment. When the subjects are in supine position, they were asked to move their he
MRI) could be the sources of information. In this thesis, both acquisition hardware and software of a two channel EEG based brain
ve players. Their mean heart rates were also marginally higher than the heart rates of non-excessive players. For both subject gro
rved with a region specific ultrasound probe, which works within a certain frequency border and the images yielded are subjected t
ch would keep inventory of medical devices; their maintenance procedures and repair/maintenance histories; and would automate
nd 16 healthy controls were participated to the study. For this study biochemical markers (IL-1 , IL-1 , IL-10, TNF-) which were cons
l, 50 mU/ml) on NMDA receptors of hippocampal CA1 pyramidal neurons were investigated by using the patch clamp technique. It
force relationships of these cases were compared. Length-force relationship showed about 0.5 foce drop at optimum length for all
vestigated systematically in any studies so far. One of the goals of this study is to be able to observe the effects of history effects in
Nodal strain percentage changes of Case P, Case I, and Case D and Case P, Case P-I and Case I-D loading cases were compar
n the range from 29% to 60%. Multifrequency impedance measurements are fitted to Cole-Cole diagrams using the Matlab algorit
ree different hospitals with a total number of 360 measurements taken before (at rest) and during surgery. Spearman's correlation
ırgical planning and guidance. We performed basic tasks of computer assisted surgery such as registration, segmentation, surface
etween a medical grade LCD monitor and the designed one in terms of diagnostic image quality. After the design’s validation, 60 c
ıtraoperatively for the first time in literature. Experimental data is collected during the surgical operations performed by Prof. Dr. Ye
ce: in endovascular cardiac interventions, detailed anatomical positions of infarcted segments of the heart could highlight target or
ohenomena is known as a fitting problem in literature and due to the altered transfer function artifacts a small incidence of people l
ver, the most appropriate wavelength is still the subject of debate. The laser light delivery technique is another criteria that affect th

: stimulus locations (2 distal, 1 RF center, 2 proximal) and three different contactor sizes (area: 0.39 mm2, 1.63 mm2, 2.96 mm2) v
ly manipulate the stimulus before keeping it in mind. Brain activity information was recorded through the electroencephalography (
stributions of the parameters. In this study, the power of Bayesian inference was compared against classical inference in random e
y estimating its volume and identifying its anatomical label. To reduce the anatomical variability, the first step consists of spatial reg
ped objects were glued on cardboards as pairs rotated at five orientations (0o, 45o, 90o, 135o, 180o). A passive touch method was
t up a digital dental imaging system and to implement its image processing software. A digital dental X- ray system consists of thr
ed together with the required debonding forces and intrapulpal temperature changes. In this study, keeping intrapulpal temperatur
quality in tomosynthesis. Different groups were created with varying arc lenghts and projection counts. A blur removal method was
initiation, application time of laser irradiation was defined for each laser parameters. For the second approach, in order to prevent
rcellate memory related circuits in the brain in a load-dependent manner. The method was based on deter- mining the eigenspect
ormed. All mechanical impedance and morphometrical measurements were done in two different conditions: the normal and the ep
udy; are there any differences between early and delayed application? In this regard, three experimen- tal groups underwent surge
l connectivity between PFC regions. 2D correlation based similarity measure was used as a method to analyze within-subject and
y oddball paradigm. An acoustic stimulus has been sent to the subject and a marker about the stimulus has been sent to the recor
w-intensity x-ray. However none of these techniques are entirely satisfactory. In the present thesis we propose a novel technique b
ted disorders which are schizophrenia, migraine and attention deficit & hyperactivity disorder (ADHD) on fNIRS measure- ments a
corresponding test strips. In this thesis, a mobile urine strip analyzer called BUSA which can be controlled via both GUIs of MATLA
ional independence between variables. Such models are deemed attractive for their ability to describe complex stochastic process
peed and resolution. In literature, Q-switched lasers, solid state lasers and fiber lasers are used for the micro- scopic scale of phot
e were prepared (A= 100, 150, 200 μm; B= 30, 40, 50 μm; C= 30, 40, 50 μm) by photolithography. PDMS substrates with desired p
ng electron microscopy (SEM), the best mimicked scaffolds were obtained at 10% PLA concentration and 24 h casting time. The ef
um of the light reflected from the sample with a spectrometer. The color of blood can be defined as a set of tristimulus values or co
ovement (0.5-0.6 m/s). The slow movement condition (-20.8 dB) and the fast movement condition (-21.8 dB) yielded on average lo
npletely submerged in saline solution, via a 600 μmm fibre. The incisions were made by moving the fibre tip manually at different s
he killing effect of antibacterial PDT. For this reason, there is a biostimulation risk during antibacterial PDT and op- timization of PD
pared according to their privacy approach and a list of items for common security controls from different industries is proposed as
velopment of various cell scaffold mate- rials, surfaces and biochemicals. Although our knowledge on this subject increases in time
tory dynamics. Then, in our model problem, we aim to design a family of genetic networks that exhibit stable periodic oscillations w
analysis. In order to achieve that, a group ICA approach using temporal concatenation of the subject data is adopted. Since, there
copy method is used as functional neuroimaging tool. fNIRS results revealed that activations for both tasks mainly located in both l
Molecule (Leu-SAM)], (3-aminopropyl)triethoxysilane (APTES) and also poly-L-ornithine (PLO). The char- acterization of these sam
RS measurement, at least two different wavelengths are selected from the optical window (600-900 nm) for the detection of the co
icon System with the Berthec force plates. The particular analysis is done at the instant the knee atteins a full extension position be
le. Continuous-wave and pulsed modes were used, each at 4 different laser power values (200, 400, 600, and 800 mW) and expo

esired current signals. The device is powered by an external power supply with high compliance ±37 Vdc. Waveforms are produce
ge of motion(ROM) and muscle func- tion. However, the mechanical effects of KT applications remain unclear. The present study a
d experimental equipments to- gether enabled the in-vivo quantification of local strains along the orientation of the skeletal muscle
st; in this study we want to evaluate the clinician's performance of the other display devices such as large screen TV and tablet for
ch aim to improve airway caliber in the pharyngeal zone. However, the patient compliance for these preferred treatment op- tions h
luate the accuracy of the characterization of lung nodules on bone subtracted chest x-ray images by using di_erent types of bounc
ained 78 high and 54 low-grades MRI scans from Baskent University Hospital, and 20 high and 10 low-grades images from the MI
on classification accuracy. The main objective of this study is to improve the characterization of detected nodules on chest x-rays
tively. Syntheses of amino acid conjugated SAMs were characterized with 1H-Nuclear Magnetic Resonance (1H-NMR) Spectrosco
l that performing n-back task required a reorganization of resting state network. Task-related topology showed higher global efficie
tion and carbonization onset times for the lamb brain tissues. In this way, safe operation zone could be described for the dosimetry
the frog's sciatic nerve. The block was applied in a time window to allow the propagation in myelinated fibers. The neural activity v
noc amino acids having different the hydropathy indexes modified on RGO/Ti surface by the π-π bond. The chemistry and morpho
is CNC controlled dispenser system allows to form three dimensional receiver antenna configurations automatically onto non-plana
ilarity results, a decision index is calculated. The decision index demonstrate presence or absence of AD. The system was develop
s substantially across individuals, but is consistent within individuals across time - can explain a substantial proportion of variance
ly to eliminate standing wave formation, hence RF heating. The insulated nitinol segments were connected by short nitinol tubes fo
th the help of different image quality metrics. Additive White Gaussian noise (AWGN) is used as a noise model. A reliable method
sing a single subtraction (QUIPSS II) formula. CBF and aBV maps were fused into T2 weighted (T2w) MR images, and registered
ulti-voxel 1HMRSI data were acquired in all patients. An MRSI data analysis tool was developed tocreate 1H MR spectroscopic pe
vas poured on the mould to obtain bone surface mimicked (BSM) scaffolds. Then, Bone Morphogenic Protein-2(BMP- 2) was loade
with PLLA or coating GO onto the PLLA and PLLA/GO nanofibers to fabricate ideal scaffoldswith appropriate physical, mechanical
cture, soft lithography method was chosen by using Polydimethylsiloxane (PDMS). Chitosan solution was prepared by dissolving pu
g (CaCl2 as cross-linker) and lyophilisation. Then GO (1mg/ml) was added to the structure and Al/GO scaffolds with different cross
ia photolithography and transferred to PAAm hydrogels by using soft lithography technique. PAAm hydrogels which have hexagon
evaluate effects of surface topography and GO addition. Surfaces were modified with hydroxyapatite (HA) nanoparticles to enhan
miology of infectious diseases. It is possible to identify the source and transmission routes of an epidemic by DNA fingerprinting of
rasonic transducers used in acousto-optic transmission lines can couple with local E-field changes during MRI scan and generate
s in vivo is lacking. This study utilized magnetic resonance imaging (MRI) in combination with non-rigid demons image registration
and infection risk. The prostate biopsy needle has been designed using MRI compatible nitinol hypo tubes and fabricated using an
e of PEEK which are not favorable for cell adhesion brings about some limitations in its application due to inefficient osseointegrat
ddle fingertip of each subject by using a cylindrical contactor (r = 2 mm) at six frequencies (100, 150, 250, 350, 500, and 750 Hz),
propanol for 3 hours. Finally, the samples were immersed in L-Arg solution in phosphate buffered saline (pH=7.4) and incubated at
The first step to design a CVMC is mathematical modeling, and validation of its efficacy, stability, robustness and limitations. In th

this sensor infrastructure. In the long run, design of a device that is both easy to use and financially feasible is aimed at and the pr
/-MRI) were obtained at a Philips 3T clinical scanner. Fractional anisotropy (FA) and mean diffusivity (MD) maps were estimated fr
l proximally and distally by the EDL muscle on both muscle length changes and muscle relative position changes. Two groups of W
) area (S1HL) of the rat SI were investigated. Coronal sections (50 µm) from 7 Wistar Albino rats were obtained for each area. Mo
surviving bacterial colonies after laser irradiation with 30,60,and 180 second exposure times and different PS/Potentiator concentr
optical fibers with a diameter of 125 µm which are embedded and fixed into a borosilicate glass capillary with an inner diameter of
ot known how the BFR training affects this property. We compared the effects of 6 weeks of BFR and HI -elbow flexion- training o
has the best results with RMSE values of 1.19 mg/dl, 2.53mg/dl and 5.81mg/dl for 15,30 and 60 minutes prediction horizons (PH).
vocalization recordings; neural activity was indicated by c-Fos expressions in primary somatosensory, posterior insular cortex and
ding and release pro le of ZOL on GO particles was investigated by using UV-Vis spectroscopy. Samples with di erent concentrati
ated on a glass wafer. Three different salt (LiCl, KCl and NaCl) solutions in different molarities between 0,001M to 0,1M and with d
served in 50% in CA1 and 30% in CA3 and in these cell types the stimulus is privileged on the AcD. The effect on information pro
ons in their musculoskeletal and neuromuscular system. Up till now, it has not been tested specifically if FFL is superior over THL i
according to the neuropsychological test scores and physical examination results. MRI data was obtained at a 3T Philips clinical M
ent eye fatigue measurements methods (CFF, Eye Blink rate (EB), Subjective Test (ST)). In order to stimulate eye fatigue, 400 X-
nts had identical lumbar and hip BMD diagnostic results. Dominant arm characteristic frequencies of normal subjects were signific
os (i.e. 1 J/cm2, 3 J/cm2, and 5 J/cm2). Cell viabilities were determined by MTT (3-(4,5-Dimethyiazol-2-yl)-2,5 diphenyltetrazolium
oscopy (SEM), contact angle measurements, Fourier-transform infrared spectroscopy (FTIR) and X-ray photoelectron spectrosco
simulated. Simulated adenoma was chosen small (0.58 cm3). In order to create a parathyroid adenoma SPECT image, 99mTc-Se
to model The Symbia T6; Siemens, Erlangen, Germany SPECT/CT system that was equipped with LMEGP and LEHR collimators
onstructed based on Hyper Perfusion Catheter patent (patent no: 2011/07038) owned by Emir Yusuf, MD. The aim of this cathete
iology as it constitutes a backbone for in silico simulations based on the existing experimental data. Validated mathematical model
astIS image processing software was implemented using MATLAB and the graphical user interface was developed using MATLAE
e dihydrate (CSD) is also used to control setting and degradation characteristics of the cement. Polymers which are mixed with th
o-gravimetric Analysis (TGA) and mechanical testing were performed to characterize structural and mechanical properties of synth
istance to increase the PDT's efficiency, making PDT more widely applicable. Thus, this M.Sc. study introduces the usage of Curc
ding to this information. Scheduling makes it easier to control and stick by the layout of the hospital process. This web-based softv
ase productivity for radiologists by the use of some techniques to improve the performance of mobile displays at normal conditions
rentiated by Retinoic Acid (RA). Morphological and fluorescent assays, including F-actin staining, were used to verify and characte
were used for im- munofluorescence staining. According to hemisphere in which the stimulation was applied and histological sect
occurrence. Existing literature suggests the tics to arise from hyperexcitability due to GABAergic dysfunction, and the adaptive son
e Carlo Simulation package and Design of Experiments were used to evaluate SLNs in breast. A Zubal torso phantom was modelle
oor and wall tiles, granite), and zeolite and as an additive in standard the blast furnace slag, fly ash and limestone used in the man
w/w) bone surface mimicked (BSM) polydimetylsiloxane (PDMS) membranes on osteoblast behavior. Bone tissue microenvironme

first study that suggests SAM operating at acoustic impedance measurement mode for the quantification of tissue-mimicking phar
lay an important role in treatment planning. Magnetic resonance spectroscopy (MRS) is a noninvasive technique that could be use
onsisting of 46 AD patients and 23 HC subjects. The cortical thickness measurements were performed over 34 different regions on
ation driven novel micropump designs still continues. Shape memory alloys have been gaining more attention recently, for their idi
sure on the nerve using shape memory alloys (SMA). In this study, the actuation mechanism that will apply pressure on the nerve i
show the water-soluble flavonoids of the plant have antioxidant and anti-inflammatory effects. SH-SY5Y neuroblastoma cells are co
brackets by using acid etching (for acid etching group phosphoric acid solution is used within the ratio of 37% to the bonding surf
sing the indocyanine green (ICG) as a photosensitizer loaded onto a gold nanoscale carrier. For this purpose, PDT was applied to
algorithms can predict the type of the breathing pattern. Different types of breathing patterns contain distinctive features that the c
d, but the treatment options are limited in stage 3 and 4. Therefore, early diagnosis is major for the patients. The commonly used c

stal nitinol anchor while sealing the LAA ostium using a coated nitinol occluder frame. The sealing capability test of the prototyped
ength. Musculoskeletal patient specific models were developed using OpenSim software by using the gait analysis data of CP pati
ing-damper system, so the object generates a force proportional to the distance it is pushed by force generated from the probe co
sical phantom. X-ray simulation is created based on x-ray attenuation and ray tracing. Physical phantom is produced for acquisitio
annotations on nodule characteristics are highly efficient for researchers. One of these characteristics is malignancy that has 5 rati
a program for creating different types of volume-flow diagrams in order to be applicable for different breath patterns.Volume contr
were chosen to make up hydrophilic and hydrophobic regions on the surface and they were mixed with changing concentrations (
thms to identify the motor or the cognitive activity that is embedded in the brain signals so as to mobilize the peripheral devices ac
magnetic stirrer and sonicator. During the preparation of samples; ZOL stock solution was obtained by mixing ultra pure water (5
gth, flexibility and biocompatibility. Evoked local field potentials were recorded epidurally at the hindpaw representation of SI in ane
ng to the patient and usually more than one attempt is made to find the correct shape. In this process, the submerged rib cage is e
ological findings. Moreover, a recent finite element analysis study has reported that BTX-A injections were found to increase the inj

argeted drug delivery. To reduce the toxicity of SWNTs and get an excellent drug carrier, we were modified SWNTs with a novel n
al (DIP) joints of human finger to use a single motor for their control. A mechanical model is established for a single finger with cor
s gets oxygen through the placenta instead of using its own lungs. Although the pathology starts in utero, the pressure levels in the
etermine the most effective pretreatment and coating process. Before coating pretreatment was applied to all scaffolds with 1M Na
ere embedded with 1% (w/v) alginate hydrogels. Due to the lack of alginate receptors in these cells, cells in alginate tended to bec
sing GSP as a preprocessing tool. Two EEG datasets, one during emotion detection, and one during motor imagery are used. Sup
opy indices (DAIs) and diffusion tensor eigenvalues (DTEs), derived from diffusion tensor imaging (DTI), can be used to quantify th
the dopamine system to mediate effortful motivation and the opiate system to mediate pleasure. Importantly, deficits in either syst
ibers with a biodegradable polymer, Poly Vinyl Alcohol (PVA), using coaxial electrospinning method is demonstrated. It was hypoth
n terms of hardware development, a printed board containing CMOS line sensors, digitalization circuitry and data lines is designed
he raw sEMG data and usage of sliding window might be problematic for a real time application. The main aim of this thesis was to
rmed in MATLAB offline; model parameters were implemented in the FPGA by using NI LabVIEW and FPGA module. Vibrotactile

predict ankle moment and position using only sEMG input for control algorithms of stair ascending and descending tasks. Time del
chines (SVM), a common machine learning algorithm chosen as the primary method within this thesis's scope, and three different
sive treatment methods such as ultrasound can be applied to the target tissue during and after the implantation surgery. In this the
grade but there are some problems about data such as scarcity, unbalancing and standardization. In this study, we aimed to impr
that, different frequency bands were used as features of EEG data. In addition, support vector machine (SVM) as a conventional
h a 0.3 mm nozzle, and structural collapsing was able to be prevented. After the fabrication of 3D-printed PDLLA samples, they ar
ractions between material surface and cells, bacteria and proteins are affected by the surface topography. The characteristics of t
d by vibrotactile stimulation in humans. Therefore, the fundamental goal of this study is to analyze SEPs, which were generated by
n objective severity index that correlates with well-known neuropsychological tests. 125 patients with AD, 132 Cog- nitively Normal
should be absorbed by the tissue. In this study, lamb liver tissue was irradiated by 1940 nm Thulium fiber laser through 600 µm ba
r to produce fibrin, fresh frozen plasma (FFP) was obtained from volunteers and with only CaCl2 solution, coagulation of the FFP
n encompasses staining inconsistencies, tissue folds, chattering, pen marks, blurring, air bubbles, and contamination, in addition to
tracted from 3D images and all of the slices were included in the feature extraction process. Initial dataset consisted of 1157 featu
ue nanocarrier sys tem was designed using natural materials for controlled delivery of an anticancer drug. This system contains a
crimination of an avatar in the VR screen. All motion detection thresholds were found to be lower than 0.04 deg/s. Angle and veloc
and UV exposure doses, and the effects of these variables on the microgroove width have been observed. For this purpose, two-s
y improves upon existing metrics by utilizing cross-frequency coupling gleaned from scalp electroencephalogram (EEG) and trans
an open access data set which includes 50 participants with 25 males and 25 females aged between 6 to 72. In the dataset there
oved after the surgery by testing the following hypotheses: (i) knee joint movement does not improve postsurgery, (ii) the hip joint
ird group of patients who neither has short nor slow hamstrings pre-operatively can still undergo surgery. The aim of the thesis is t
ins that form the PC structure comprehensively. In this study, proteins found in the hard protein corona (HPC) structure of two diffe
at underlies in the EEG. In this study, we propose a classification pipeline that uses the network structure of EEG data for a simult
tainers. The main goal of this thesis study is fabrication of totally biocompatible, biodegradable, durable, nanocontainers that cons
nflicts with the firing patterns of nigrostriatal DA neurons because these neurons generate rapid phasic DAergic signals in respons
mplant interactions while minimizing bacterial-implant interactions. Physicochemical characterization for Graphene Oxide (GO) coat
d cells and it has been aimed to reach the closest diagnosis to the truth. However, the number of these methods is quite high and
fective destruction of cancer cells, but different cancer cells require different approaches. One of the resistant colon cancer types
edure in Microsoft Excel that generates non-normal distributions. We further ran instrumental conditioning protocols utilizing the di
y synthesis, and adaptability of surface chemistry. In this study, it was aimed to synthesize polyethylenimine-capped gold nanopar
with haptic feedback. The system usability scale (SUS) and exercise performance scores were evaluated. There was no significar
om the hind paw representation of the rat S1 cortex by using various experimental parameters. The effects of the prior stimulus on
ne NEO method to detect the spikes and the Windowed Sinc Interpolation method to upsample the detected spikes four times. We
Ns), intended for potential applications. SPIONs were chosen as magnetic nanoparticles since they have good biocompatibility. W
tification accuracy using computer simulation. Methods: The SIMIND Monte Carlo Simulation and CASToR iterative reconstruction
ization of a reconstruction plate. Structural analyses were conducted on the final designs. The Voronoi pattern is advantageous fo
o non-technical aspects of ALS that are generally overlooked by similar training serious games. This serious game is developed in

:U to be realized and the precautions to ensure patient, user and visitor safety are described. The coronary care unit in the Eftal Ho

ineering discipline than are presently needed. There is only one Biomedical Engineering Institute at Boğaziçi University graduating
e physicians and non- Nuclear Medicine ones), Nuclear Physicists, chemists, University Biomedical students and staff, equipment

d signals are then processed and developed to MR images by using different imaging methods. MR offers very good images with a

neasurement of blood pressure variations and electrical impedance are the necessary and sufficient data for running the computer
ation dose to the patient. Film purchasing policy in Turkey and its potential effects on film quality have also been discussed in this

e a computer program has been developed for processing the electrical activity of the brain, measurement and comparing visual re

units of a high-frequency jet ventilator, currently in use at Cerrahpaşa Hospital. The device, including heater and humidifier and the
athematical phantoms are presented and discussed. The results indicate that by increasing the grid resolution, image quality can

and hospital. get information about medicine groups. - control the medicine stocks' of hospital. see expiration dates of all medicine

graph, an IRM PC/AT compatible computer, a data acquisition card. A data acquisition software was developed to acquire the VEP
oints at the unique qualities of medical field and physicians that prevent the routine and extensive usage of such programs.
stem searches its database to make a final conclusion. This database can easily be modified and expanded. Presently it includes a
ardiac pacemakers in the world and Turkey, and their follow-up procedures from the point of view of timing, method and used instr
esults consist of summarized information about each hospital, the existing analysis devices in the clinical laboratories of these hos

alized by utilizing digital subtraction and summation methods sequentially. A summation matrix is created to visualize the high imp
ages have been displayed on a TV monitor by using a graphics display card. Huffman coding and Run-length coding algorithms ar
ated. In the sixth part, the services of each 24 district health centers are compared and the Suggestions to improve the quality and
been tested by application to simulated data, in which the present EP's are added to measured spontaneous EEG segments.
to a short burst of RF energy at exactly the same frequency as that of processing nuclei, the nuclei start processing and emit a col

of 85 data per inch in both horizontal and vertical directions is supported by the scanner. The character recognition software are d

a disk drive, and a single chip A/D converter like the National Semiconductor ADC 0804, controlled by the software written in the

strength (r=0.733) have encouraged for in vivo estimation of cancellous bone properties using quantitative computed tomography
aporization therapy, 6- Phototherapy. Nd-Yag Laser permits the "noninvasive "incision of intraocular structures. Results of this stu
of assisted reproduction in Turkey is specified, the future trends are discussed, a detailed description of the equipments used in a
generator output to a variety of modalities by programming. This is not a complete EEG system but it has the options such as real
ssed by this algorithm and a feature vector is inputted to a single layer perceptron to train it's weights. After the training, the weigh
epetitions of the same stimulus. The application of the proposed method to real EP data revealed a close relationship between the

ge processing problem into the software. Different software techniques are used to approach the implementational problems of a
ammation of the cornea. For simultaneous closure of eyelids, it has been suggested that the EMG activity of the intact eyelid may
is regularly controlled. The results have been plotted on an X-Y plotter in milivolts versus time and the graphics obtained have bee

g and segmentation process are discussed and the results are illustrated in relation to their clinical applications. The developed so
unds may change from phase to phase. An AR modeling was applied to obtain a parametric representation of the sounds. The ana
using conventional averaging methods which require considerably more trials. To test the validity of the model the autocorrelation
for simulation of contracting muscle and, the model is modified in order to simulate the mechanical properties of relaxing cardiac
of six input/output ports, two DACs (digital to analog converter), two ADCs (analog to digital converters) in addition to 8085 periphe
G compression techniques have been applied to identical ECG data. Among the ECG compression techniques, SAPA2 algorithm
sed to reconstruct the image of the body with an appropriate algorithm. Both the current injection and voltage measurement circui
es. The experimental results strongly support the clinical usefulness of this technique in determining body fluid losses, especially d

onic hardware is composed of four cards : an adapter card connected to PC via the expansion slots, a voltage regulator, an ADC a
blem, the modified Newton-Raphson method is used as an iterative reconstruction method. The ill conditioning is eliminated using

ng tests, energy measurements were computed from areas of hysteresis loop indicating the elasticity of the specimen, graphs of e
incidence rates of deformations that most frequently occurred in the implants used by these clinics. The experimental study prese

erver architecture with distributed database capabilities, (iii) physician-configurable tree structure for the symptoms and signs allov
n 16 cardiac cycles. To comply with electrical safety requirements, both voltage measurement and current injection circuits are isol
plants. Based on these primary testing performed, it has been found that the coated implants, under the performed experimental c
e of the system uses a rule-based approach. Uncertainty management is achieved by two different methods using either Subjectiv
o further treatment. Patients listened to PC-generated white noise, individually tailored narrow band noise and placebo recorded o
nto pixels, and each pixel illuminated with the laser beam, where the back-scattered light intensity was measured via a specially de
nnels, an ECG channel, various filters, a Personal Computer equipped with an analog-to-digital converter board and a special data
revious studies concerning non-invasive detection of CAD, using some adaptive noise cancelling schemes and artificial neural net
d after the expedition and discussed to investigate the effects of altitude on body fluid composition changes. Based on the empirica
l maximum operating frequency of 1 MHz without affecting the system performance. Any of the existing EIT data collection strateg
lung sounds. This is because the malign tumors of the lung are mostly found in the large bronchi, • respiratory sounds measured a
en tested and both have shown that the latency and the amplitude parameters must be used together to increase the rate of succe
o testing of ceramics containing 15, 20 and 30% zircon, didn't form any foreign body reaction, for two months period of implantatio
he correlation coefficient between the filter output and the template signal. The template signal is chosen as the 1024 averaged da
cluded that the algorithm may be a useful clinical tool for the diagnosis of patients with the gastric motility disorders. This study also
Hz notch filter has been employed in each analog channel. The CMS of the analog amplifiers was measured and found to be very
n binary format to ASCII. These signals are further processed by a special software using Pascal language. An attempt has been r
z continuous-wave, non-directional Doppler flow meter has been developed which is capable of measuring flow velocities below 2
ode mode. The collected data are used then for drawing the graph of the dielectric permittivity and the electrical conductivity as a f

's brain, were also checked against the thermal data, in order to see whether there is a direct correlation between the stimulus indu
ese experiments, patient monitorization and blood tests consisting of the determination of blood fibrinogen levels, complement 3 le
ent recordings can be drawn on the same screen in order to compare them. The electrical safety of the vectorcardiograph is obtai

h an A/D converter, channels for the recording of heart sounds and an environmental probe for the recording of ambient sounds. T
terms of a comparative evaluation. The significances of these physical and mechanical findings are investigated and discussed. E
Medical Faculty with the help of the high frequency transducers, some results are obtained. Ultrasonography may reveal compon
sed to revision were studied. In the second part of the thesis, two ostheosynthesis plates and one osteosynthesis pin, which have b
nan articular cartilage should be analyzed and quantified well. In this study, starting with the stress relaxation experimental results,
ailored for the patient. This requires precise determination of the tinnitus frequencies, which is not an easy task and is time-consun
ture and 16 peripheral nodes (eletrodes) is used. To reconstruct the image, firstly, the region of interest is divided into small, discre

mplifying things, has generated great confusion due to extreme difference in the values of Kt/V obtained and has stressed the urg
shed with the use of a computer based surgical planning system. In Turkey, the surgical planning is performed with manual target
ering power, which in turn is related to the kinetic energy. The dose distribution is measured by an ion chamber which is moved by
aft version of IEC 118-13 standard was utilized as a basis for the test methodology. All of the hearing aids showed susceptibility to
met by polymer matrix materials stiffened by bioactive ceramics such as hydroxylapatite. Hydroxylapatite is the main mineral conte
nd a segment of white noise. 2) EEG samples recorded (whose D2's have to be calculated from experimental measurements) und
puted Medical Information System (IDMIS) developed for this purpose is described. IDMIS uses the Internet e-mail facility and a m
nitus frequency is determined through pitch matching. In this step pure tone sine waves are used. The third step is the mask deter
bjectives of this thesis were to determine the levels of contaminants or elements in the dialysis water and dialysate, to compare th
user since they are stored in the PC. N_EXPERT is also equipped with useful help screens for a number of complex symptoms. A
binations (90) of training, validation and test sets are considered. The neural network, after training with the original data set witho
in safety limits. There is no hazard of electrical shock or chemical contamination. The performance of the PTM has been tested in
the temperature range of 30°C-40°C on in vitro tissues. In the phantom study, a Turbo Spin Echo sequence with a TR of 425 mse
is purpose EMG signals of sixteen different motions of the arm and the hand, are acquired in Istanbul University Medical School N
while pointing out the necessity in utilization of the information technology in routine medical practice. The study consisted of the c
mental method with multiple regressions, weight normalization, and classification of the patients into two groups based on their boc
ne treated alumina. Corrosion tests performed in an aggressive environment have shown that silane caused more lost of material
ed with 0.9 % saline to obtain 3 different blood hematocrit values from each donor. Multifrequency impedance measurements are f
s not only used for the rehabilitation purposes but also to generate controlled motion in upper motor neuron injured cases. In this s
performance such as the ROC curves and signal-to-noise ratios. ROC curve analysis is the state-of-the-art method constructed by
onstrated that posterio-lateral segments of globus pallidus interna was the most probable area for the localization of upper limb joi
ecision-making trees (or disease trees) are used to develop the inference engine. Data from a study group consisting of 75 patients
ue, e.g., duration of the test load. This may be the result of the viscoelastic properties of the polymer. The microhardness is not dep
polyacrylamide gel in order to simulate the human tissue and the implant material inside. This phantom is scanned under MRI usi
neal topographies and Snellen charts from a study group consisting of 38 eyes have been used for the evaluation of the laser syst
lation for FFM and %fat. Although correlation between skinfold and circumference did not change upon exposure to altitude, it dec
and programming considerations. In hardware design, the usage of microcontroller and IC technology also provided some improv
s and reduction in mismatches due to prosodic differences by allowing prosody alteration. A speech corpus is needed for the appli
r techniques after digitizing signals. The system has calibration and impedance check features, as well. In addition, the system cor
ore the analysis, surrogate data testing has been made for each record to detect nonlinearity. For the choice of optimal time delay
e software developed is designed with Borland Delphi 4.0 under Windows operating system. The reconstruction algorithm is the m
s a group vise suffix search. A word-parsing algorithm, which is designed to use with this method, is also introduced and given nar
coil sensitivity or a variation by tissue change. Calculated Tlf T2, and PD images provide consistent pixel intensity corresponding
nted in a dental prosthesis. To establish clinical studies and to compare with electrolarynx, two other prototypes individual to each

ic emissions and auditory brainstem responses. This reduction is especially important in creating a data set for determining the no
conditions that can be medically corrected. However, there are a number of symptomatic treatment methods for patient relief, inclu
sity and some disorders. Blood viscosity information is also valuable in monitoring the patient's body reaction to medical treatment.
to obtain quantitative parameters in building a comparative database. Two different groups; infants (age 0 to 7) and adults (ages c
PACS sistemleri görüntü otomasyon kontrolünü Radyoloji bölümü içinde sağlarken, Radyoloji Bilgi Sistemleri (RIS), Radyoloji bölü
base structures into its base without problems. It has a user- friendly, windows-based graphical interface, and can easily be used b
as area, perimeter, circularity, normalized circularity, radial distance mean and standard deviation, area ratio, orientation, eccentric
neuronal damage, it is the most likely place to investigate. In fact, hippocampal volume loss has been shown to be linked to the de
s, store patient related information and facilitate access to the historical laboratory results of the patients. It has been written in Mi
dapted from research literature on hyperthermia. As it is not possible to perform the experiments on human in vivo, we simulated t
asier way to manage patient information. The software is now installed on a single Server in Marmara University Medical Faculty, D
ratories of Sakarya University and "KEMA-ESİM". In vivo experiments were conducted in Î.Ü. Cerrahpaşa Medicine Faculty, Bioph
act data on variances, that is anything deviating from the standard. These variances can be patient variances such as socio-econc
mputerized tomography (CT), Dual Energy X-Ray Absorptiometry (DEXA), and histological methods. X-Ray data showed that Gro
ency link is established between the transmitters and the receiver using frequency modulation. Communication between the PC an
c fibers, which innervate the intermediate gray layer; these originate from the pedinculopontine and lateral dorsal tegmental nuclei.
h minor malocclusions. The cast models and trays were scanned into a computer and critical points of casts and skeletons of the t
s of the tongue was presented. It was shown that the surface points do not provide enough information for the reconstruction of the
tor during placing process of overlays onto sagittal CT image, which is done respect to coordinates of Anterior and posterior comm
hich consists of 10 individuals was compared with an age and sex matched healthy group consisting of 9 individuals using visual e
the other half Sabouraud Agar for fungi. The samples are taken from 15 different locations; 12 dishes are placed on the floor, and
d Windows based Graphics User Interface (GUI) are developed using the Borland Object Windows 2.0 programming language ar
electro-colloidal silver, silver nitrate, silver sulfadiazine, and antimicrobial ceramics impregnated with silver ions. Bacterial growth is
otation variance. Cubic curves are fitted to the normalized tags and curve parameters are compared at various regions of the myoc
tation) during mandibular function. TMJ sounds are common in patients with temporomandibular disorders and electronic recordin
vation of the final surface properties after preparation would aid a dentist to have a better opinion on what type of material is best t
nts of bone is gained or lost over a year. If a shift in the calibration of the device would occur, this would affect the results of the m
ne-out'. The lung sound signals belonging to inspiratory or expiratory phases are divided into thirty segments with 25% overlappin
different recognizer models and finally, an accuracy performance of 95 % is achieved in recognizing words from Turkish Radiolog
rm surgical outcomes of these procedures are not always satisfactory due to a number of reasons including intraoperative vocal e
ents' doctors. The system will allow subscribed doctors to access patients' records using Internet whenever they need. On the othe
chosen based on the observations of an expert neurologist. The recorded data has been divided into segments of 5s duration. Su
catheter and animal studies are required to reach the exact conclusion about this alternative coil detachment system. Keywords: C
ne placed on the chest of the patient while the other is from a flowmeter that is used to label the lung sounds as belonging to the i

consisted of two identical tests. First, the subjects performed repetitive auxotonic knee extensions to maintain for as long as possib
detection of the embolic events. As a last step, a software that can perform all the operations from digitizing the DUA recordings t
of lesions on the whole brain and on the thermally altered nearby tissues were investigated. In order to observe the recovery perio
ıg thermal alteration around lesions, the extent of lesions and coagulated zones in three dimensional coordinates (anterior- posteri
ctors as large as 3x 109. Due to their sensitivity, morphology dependent resonances of microspheres are also considered for biose
e Adding-Doubling metodları kullanılmış, sonuçlar lit eratürdeki değerler ile karşılaştırılmıştır. Lambert-Beer metodunun verdiği sor
red spectrum (FTTR), ESEM micrographs, EDAX and X-ray analysis of natural hydroxyiapatite were obtained and the results were
elopment and modifications of a prototype fast optical imaging (FOI) system based on the functional near infrared spectroscopy sy
cessing systems. The Monte Carlo method is very useful in medical physics due to the stochastic nature of radiation emission, tra
systematic modification in cognitive content of the paradigms, experimental set that consists of four auditory paradigms was desigr
the literature. A software program utilizing random search method is created and used to achieve the optimal shape of the stem.
ınderstand how blood oxygenation of the prefrontal cortex relates to the cognitive activity through detection of task-relevant cogniti
ese forces are related to contraction ratio, speed, and acceleration of the actuator. First, the load mass that the muscle lifts is mea
ıas two microphones; one is placed close to patient's mouth and is used to capture voice continuously, while the other is used to s
on. Computer simulation of kinetic models plays an important role in biochemical sciences. The aim of this study is to simulate, the
The three concentric spherical shell and realistic head models which lead to analytical and numerical forward solutions, respective
ts' brain (kindling model) due to electromagnetic radiation of the mobile phones. The animals were exposed to electromagnetic rac
Besides an endoscope and a video camera, video laryngeal stroboscopic examination requires a high-intensity, pulsed light source
cle. Signalling pathway starts with binding of growth factor to receptor at the cell surface and finishes with production of activation
ıre parameters such as kVp, mA and exposure time are evaluated. Comparisons are performed according to procedure type, amor
er and outer contours of LV cavity are drawn, usually manually. The second step is the estimating the tag locations within the LV w
cal imaging method and electrophysiological activity measured by EEG during health and disease. This M.Sc. thesis is involved wi
r than control group which was not irradiated. The second study aims to detect the proliferation of peripheral blood mononuclear c
tours are used for ejection fraction calculation. The ejection fraction is defined as "the proportion, or fraction, of blood pumped out
erimental elastic scattering spectrum from the silicon microsphere is observed for the first time. Biosensing experiments with silicor
ıe (n=5) into the medial septum, which is the major source of cholinergic innervation to the hippocampus. CA1 EEGs and AEPs we
ed by adding critically located and calibrated bipolar gradients during regular imaging. Phase contrast MRI are used for routine clini
se measured results with the second hospital's values, and the previous studies in the literature, and also the limits that are define
proach is Functional Electrical Stimulation (FES). The objective of this study is to evaluate the effectiveness of FES on children wi
ıtom for the evaluation of DSA systems, according to the American Association of Physicists in Medicine (AAPM) report No. 15. As
attached to the top of the head coil. The gradient signals are first passed through opto-isolator circuits and then acquired by the st
ding to landmark numbers. The simulation is presented as the mean of 20 experiments forpoint pair measurements and registratio
neously while saving previous acquired signals, calculate heart beat and respiratory rate, and review previous recordings for furthe
ıg Laboratory at Athinoulo A. Martinos Center, Massachusetts General Hospital. In order to figure out how the measurement sets

elial tissue. In the tumor cell model, the signaling pathways respond to hypoxia that occurs due to high metabolic rates, and expres
ormative databases with two standard deviations were compared with each other in evaluating the kinematics data of hip, ankle a
and sEMG measurements gathered from Vastus Lateralis (VL) of the quadriceps muscle. Deoxyhemoglobin (HB), Oxyhemoglobin
lectrocardiogram (ECG) and Electroencephalogram (EEG), the progress of the EGG has been very slow. The main problems inclu
automatic image registration, quantification of time-intensity curves from desired region of interests (ROI's), and estimation of inde
to elevate the thresholds of the P channel with respect to the NP I channel. By this procedure P channel can be perceptually mask
.ED driver circuit for constant current supply, a data acquisition unit composed of a microcontroller such as a PIC16F877, a data tr
robe in the form of a planar microphone array, precision amplifiers, filters and A/D converters,interface circuitry, a PC and special
bjective of this thesis is to perform spatial analysis of scalp topography by 2-D wavelet transform and isolate spatial frequency cor
Temperature). This system can also be portable to other sensor applications. This design consists of a two part, the hardware whic
of testing non-invasive blood pressure measuring apparatus and bedside oxygen flow meters with a high level of accuracy, hence
migraineurs and healthy subjects are compared. All amplitude parameters of migraineurs were found to be approximately half of t
e. This system delivers and detects white light with single optical fiber. The scattered light from tissue is detected by a spectromete
ted. Wounds were welded successfully at the end of the study. The rats did not show any abnormality on their health, behavior an
ation. The method is based on the small temperature gradient that is produced by the inflow of blood into the graft and can be dete
en introduced steps that are necessary to transform this manual clinical method into a fully automated system. We explained prep
ndard and realistic conditions. Analog pressure signals have been acquired by a differential pressure sensor and digitalized throug
y unit, microcontroller based controller unit, and fiber coupling. Diode laser driver system provides current to 809-nm diode laser n
atter), and sub-cortical regions (white matter) of frontal lobe tissues of lamb brain were estimated. For estimation, optical measure
y acceptable and available as a screening tool for osteoporosis, standardization of BMD values and calibration among scanners ar
ced radiologist) using a newly proposed segmentation correlation index (SCI). When the results acquired from doctor drawings an
moglobin) signals generated during moderate isotonic forearm exercise under ischemic conditions. A model with a mono exponen
nical markers. It is also possible to continuously and noninvasively measure cerebral oxygenation by NIRS. In this study, by using
program developed by Dr. Michael Ljungberg. NCSS is a statistical analysis software package used for the Response Surface Me
agnetic field and nonuniformity of the receiver coil have adverse effects on resolution. A number of methods have been proposed
le finger and no contactor surround was used. Thresholds were measured using a two-interval forcedchoice paradigm, in order to
ibution of photon density can be seen by forming perturbations in the media. Simulations and experiments showed that it is possib
other visual evaluations, providing a visual method to monitor the impact of treatment intervention, and providing insights into the
urrent outputs, which can produce biphasic pulses having pulse with up to 350 us and amplitude up to 100 mA. A microcontroller c

given exposure duration of 20s, this proves not enough to polymerize the composite at lower levels. As the composite polymerizes
re applied successively to compress the digital ECG signal while entropy decoding, and inverse transformation are applied to reco
rmed using a fixed bench height at a self-selected speed. Kinematic and kinetic data were collected via a 6-camera motion analys
volunteers were performed in this study. Groups were formed according to their polymorphism types for each of the three neurotra

ell as suitable for rapid vascularization after implantation. Characterization of the implants with respect to phase purity was perform
ntation angles of the rotated objects. The experiment was performed on subjects who were sighted, blindfolded and the congenita
. Besides active/passive touch, the effects of visual attention and scan velocity on tactile temporal processing were tested in this s
Gluck and Myers as the basic model. The learning rule Gluck and Myers used in their original work was backpropagation. Hoping t
ation of the duty cycle was discussed. The comparison of tissue types was done and water content of each tissue was calculated b
d Split/Merge Tractography (SMT) tries to overcome the disadvantages of existing techniques. SMTs approach is to generate sho
atment. However, this system can also be used for the diagnosis of other forms of cardiovascular diseases, as well as a means of
tion server enable the device to be remotely interfaced by the call center software and controlled by the cardiologists.
functional outcome of MS/VDB lesions. Animals with low AChE content in the hippocampus showed aggravated behavioral despa
different gait patterns. Supervised learning method and Error Back-Propagation Algorithms are deployed for the training of the Mu
etching on the O2 metabolism. The device used in the quantification process is a fNIRS equipment, named NIROXCOPE 301. Ni
y, practical difficulties of crystal size, and high cost. In this work, the feasibility of using a continuous crystal detector for PEM imag
discrete designs has been explored for high resolution small animal PET applications. For this aim, a PET detector for small anima
reasing rate when was applied ramp stimulus, while the other group (SA type II) generated fewer transient discharges followed by
when the stimuli is flickered compared to static stimuli and also it was expected that the rivalry percentage would be increased as t
scope of this master thesis. In the Appendices, a simple strategy plan on how to implement the EN 17025 standard in BME Biom
itude of the brain electrical sources. In this study, EEG inverse problem is formulated using Bayesian inference on a realistic head

lters to avoid undesired signals, and manages analog to digital conversion of amplified ECG signal as well as its transmission to th
tation is often poorly controlled, frequently leading to inefficient treatment, hemorrhage, and undesired cell damage. In this study a
ıts showed that sphingolipids have an effect directly on the cell membrane, besides their roles as secondary messengers inside th
the optimization of the collimator parameters such as hole length (collimator length), hole size and septal thickness while keeping
functions well. Experimental results were compared to neural simulated population responses to study the origins of the power law
).2 Hz ($p<0.05$). The energy of the estimated signals of migraineurs in 0.01-0.03 Hz is approximately ve folds smaller than the hea
n. In this thesis, the steady state human visual evoked potentials and their corresponding fMRI scans are processed using EEG so
easuring the changes in oxygenated hemoglobin [HbO2] and deoxyhemoglobin [HbH] levels particularly in prefrontal cortex. In this
H8500 flat panel multi-anode photomultiplier consisting of 8 x 8 anodes. The interactions of narrow beams of 511 keV photons imp
and dynamometer. The handgrip exercise was performed while the wrist is (i) maximally flexed, (ii) maximally extended and (iii) in
quires maintaining a record of the examination results, but at present verbal notes are used and they are limited to subjective infor
sions, and fresh frozen plasma with reference to the Guide by European Council. The user can access detailed data for each of th
enchymal stem cells were examined. Two different dosages (1,6 J/cm2 and 3,2 J/cm2) were applied for both two wavelengths. 24
ojects, 7 females and 13 males are included in the present study. The mean age of the males is 30.8 and the mean age for female
his study, the temperature values at different radial and axial distances were measured during laser (980nm diode laser) irradiation
rom an online web site. Microsoft SQL database and .NET platform is used for the preparation of the system. All codes of the syst

ermined for each frequency. The results suggest that the post stimulus undershoot has a frequency dependency independent of ce
ompared and it was concluded that geometry has no determining effect on the mechanics of PC. Besides, viscoelastic property, al
legree of loss of cerebral activation and to localize the major areas of loss of activation in the prefrontal cortex. In this study, it was
ges on the animal muscles. The study is involved with driving and modulating two near infrared lasers as well as coupling the result
ebral blood volume (CBV) and mean transit time (MTT) were calculated. In ASL, both the single and multiple subtraction methods a
cles simultaneously. Secondary goal was to test the role of increased recovery time on history effects. For EDL lengthening exclusi
uring x-ray fluoroscopy. Fusion of two images requires registration of two images which could be archived using external fiducial m
ıtact condition, (2) the acute AT condition (after partial fasciotomy and proximal aponeurotomy), (3) the post AT condition (i.e. repe
ıonitoring. For a real-time application, underlying goal is to provide a relative or absolute temperature measurement, fast enough t
nated (DeoxyHb) hemoglobin in cortical tissue. In this thesis fNIRS was used to determine the activity on PFC of 9 graduate stude
ome this problem a method which uses calculated T1, T2 and proton density parameters is proposed. These parameters are calcul
JM), which indicates the presence of a low-dimensional attractor. By using this method, it was demonstrated that while the nonlinea
vers outperformed both the beginner free divers and the control group. Change in hemoglobin concentration from fNIRS measuren
ny were enhanced mostly by triple interventions, but even these enhancements were fairly limited: (1) In triple aponeurotomized m
(fNIRS) during a mental arithmetic task. The study demonstrated that during the mental arithmetic study, prefrontal cortex (PFC) h
jects performed a lightness matching task based on the perceived luminance at motion instant. It was hypothesized that if the subj
ts also revealed the difference in mechanical properties of virgin and used-processed fibers and confirmed what was obtained fror
in and used-processed fibers was determined by XRD. The experiments showed that the ductility, toughness and strength of the u
he microcontroller is written and compiled on CodeVisionAVR C Compiler and the microcontroller is programmed on AVRStudio 4
nts and patients relatives' satisfaction rate is one of these KPI's. In this study, we implemented an internet based system for replac
he early part of the dark phase of the L/D cycle has protective effect in behavioral despair as indicated by shortened durations of ir
muscles. Finally, it was observed that the theoretical curve of force-velocity for muscle fiber contraction could fit the experimental d
scopy. This system is designed by using leds that emit near-infrared light, photodiode detectors that are sensitive to near-infrared l
d in a power range of 200mW-3W. In vitro experiments were performed on a total of 60 freshly enucleated bovine eyes. Full thickn
ues are obtained with same laser parameters. Also at different wavelengths, 1064 nm and 630 nm, fluence and thermal contours c
load, FNIRS data and laterality (LI) index were analyzed. The difference in the oxyhemoglobin levels across different complexity le
e used 50 "bone age" radiographs of the left hand and wrist performed in a large hospital. data were analyzed using the "method c
ral cognitive impairments in addition to inhibitory deficits. Onset of these symptoms typically occurs in young adulthood, with appro
presents an automated arrhythmia detection system. The classification of beats is performed in a Graphical User Interface, name
ntiembolic agents on the bone fractured followed by healing. It is observed that antiembolic agents helped healing of the fractured
g averaged signals are calculated. On the other hand the mean values of the band passed altered HBO2 signal for the stimulation
A variety of sigma-delta converter topologies are modeled in Simulink and MATLAB routines are written. Various Butterworth and i
ost completely removes the artifacts mentioned above hence results in the best results ever reported. However, the required scan
equency towards the frequency of the external stimulus. This may arise from the synchronous ring of many cortical neurons. In thi

sted. All animals were observed during the experiments and recorded to video tapes. The data collected from video records were a
and opening (80 dB) level via Digitally Controlled Potentiometer (DCP). Desired signal is selected via the multiplexer for right or lef
nificance of the results. The spike rate increased as a linear function of the stimulus level at baseline and all tested concentrations.
one when lesions can be detected perfectly well. If they can not be detected the area under the curve (AUC) equals 0.5 and this n
of the frog (Rana ridibunda) was given 1-5 mm of ramp-and-hold stretch via a pulley mechanism connected to its distal tendon. K
nodontic brackets. All these techniques have their own advantages and limitations. Since the early 1990s, lasers have been used e
ments in hospitals. With the use of the software developed, biomedical/clinical engineering departments' processes were analyzed
eriments, first in animals and later in humans, which led to the development of the first reliable dental implant. The development o
developed with different languages/compilers. Application is based on client-server architecture and connection protocol is TCP/IP.
ed robot arms are easy to handle, precision requirements of dynamically active robots in surgery are very demanding. To overcom
C6) and rats were sacrificed for histopathological examinations. Statistically significant differences were found at sixth week; as BM
n myoelectricity. Electrogastrography, a technique using electrodes positioned on the abdominal skin records gastric myoelectrical
rat hippocampus. Different rotenone concentrations were tested on glutamate current; it was observed that rotenone effect on the
is found and shown on standard anatomical atlas in axial, sagittal and coronal planes with the waveform of the maxima through th
n instead of the complicated methods in the literature. This semi-automated method also improves the time efficiency compared to
/ fused with MRI (XFM) is an approach which combines strengths of both image modalities to improve the quality of image-guidan
eads down to their knees and they stayed in this position for 30 seconds. fNIRS signals were analyzed to represent right and left h
n computer interface was designed. EEG based BCI systems are usually implemented by analysis and classification of specific fea
ups, heart rate fluctuations were lower in game sessions compared to control sessions. Cortisol levels were found to be decreased
o certain filters to remove the noise, blur or clock that arise because of reasons such as body fat, location of the lesion or minor m
maintenance scheduling process, using the proper algorithm for maximum efficiency. Another aim was to make it possible to carr
sidered to play a pivotal role in the inflammation process during AD were chosen. Additionally, volumetric MR measurements were
t was observed that C2-ceramide had a depression effect on NMDA currents. C2-dihydroceramide, which is the inactive form of C2
three cases whereas at low lengths, distal half paralyzed case showed up to 0.15 more force reduction than other two cases. This
n repeated measurements by taking control measurements. Another aim of this work is to assess the effects of preconditioning ov
ed. Loading the muscle at a proximal location yields more pronounced percentage changes for both fiber and cross-fiber direction
hm; Cole parameters R0, R∞, fc and alpha (α) are then used to model the equivalent electrical circuit of blood. Only high frequenc
coefficient is used for measuring the level of correlation between two methods. The bacteria counts are classified after their sizes
e model generation and 3D visualization on medical images and displayed the reconstructed images on an autostereoscopic displ
digital radiographs with definite findings were obtained in cooperation with the authors of a previous study. Three experienced radi
ener Temelli and his group in Istanbul University School of Medicine. In 7 subjects (average ager: 8±4.6), isometric muscle forces a
weak zones on the myocardial wall. Main goal of this study is to overcome the lack of soft tissue contrast of XF. To achieve this g
having hearing abnormalities prefer using a hearing aid. In this thesis, to compensate the fitting problem, we designed and develo
he success of EVLA. Bare fiber, which is generally used for medical application, delivers the laser light locally focused to applicatio

were used. Averages of absolute spike thresholds (a0) and entrainment thresholds (a1) of rapidly adapting fibers were plotted as a
EEG) device. After preprocessing, the collected EEG data was decomposed into classical frequency bands and phase locking valu
effect analyses: A group data collected from visually stimulated volunteers was assessed following a simulation study. In order to a
gistration and normalization of brain images. This is achieved using the procedure implemented in the Statistical Parametric Mappi
s developed, subjects' hands were steady on a platform and objects were placed and lifted with a lever. Subjects used their palms
ee of the shelf components; a digital intraoral X-ray sensor, a portable X-ray tube and a computer. The new digital system and its a
e changes below the threshold value that is accepted 5, 5 ◦C must be accepted as a must. In most of the lasing groups, the increa
s implemented during image reconstruction to increase image quality. Image quality was evaluated by both visual assessment and
damage on alive tissue, water spray and air pressure cooling was applied during lasing to limit pulp temperature to maximum 5.5
rum of the adjacency matrix of a graph and assigning nodes to clusters with respect to this spectrum. To be able to circumvent the
idermis-peeled condition. In the normal condition, two-way ANOVA showed that the effect of the location on the resistance was m
ery (sciatic nerve was damaged by crushing for 10 minutes by applying a force of 50 N using dead-weight machine) and two of whi
inter-subject consistency of FC maps, and how they change in time. How functional integration changes during to stroop test sess
ding software simultaneously while recording EEG. A low cost, wireless EEG headset was used to record EEG data under auditor
based on the use of dielectrophoretic forces (DEPFs).By applying a non-uniform electromagnetic field around a fracture site, red bl
nd to reveal their differences from control group via advanced signal processing application. For this purpose, collected fNIRS mea
AB and Android operation system was designed by using Parallax' s color sensor, TCS3200- DB. The fundamental idea behind this
es. They also provide a clear methodology for learning from observations, even for noisy ones. However,Bayesian Networks work
toacoustic imaging. Most of the lasers used in photoacoustic studies has a fixed capacity and key parameters cannot be adjusted
patterns were prepared by soft lithography. In order to mimic the chemistry of the cartilage tissue micro- environment, PDMS subs
ffectiveness of bone mimicking procedure was also investigated by SEM. As a result, same bone and PDMS surface could be use
olor coordinates in the color space. In this study daily changes in the colorimetric parameters of stored blood were monitored and c
ower thresholds than the passive condition (-17.9 dB). Paired t-tests showed that the differences between the movement condition
peeds (0.5, 0.75 and 1 mm/s) and with making single, three or five passes, using three different power settings (2.5,3 and 3.5W fo
DT dose properly is very important to overcome the multidrug resistant bacteria problem on wounds. The main purpose of this stud
a best practice. The study shows that the hospital is not compliant with known healthcare standards like HIPAA or ISO 80001. Ma
e, more studies are needed to be done. In the purpose of this thesis, histidine and fetuin immobilized Poly-ε-caprolactone (PCL) m
with a prescribed period. Later, we investigate the temporal behaviour of a system utilizing a computer simulation. We design such
e are no studies investigating functional connectivity of AD and MCI during an oddball task, especially via group ICA, this study car
left and right lateral side of prefrontal cortex. Behavioral out- comes such as reaction times of interference effect of stroop task and
ples were analyzed with contact angle measurements, X-Ray Photoelectron Spectroscopy (XPS), Atomic Force Microscopy (AFM
oncentration changes of these absorbers in order to minimise the undesired effect of “crass-talk”. The probe of fNRIS containing a
ecause of presence of a neglectable muscle activity occurring at that time.Data of this research led to the conclusion that the Pear
sure times. Exposure times were chosen to give the same total applied energy of 4J for comparison purposes. A total of 64 laser a

ed by using a computer audio output which is controlled by LabVIEW. There- fore any user can create its own user interface with a
assesses the mechanical effects of KT in the lower leg of healthy subjects. Drop foot correction is used as a KT application for suc
fibers occurring due to activation. The specific goal of this study was to test the hypothesisthat 15% of maximal voluntary isometri
observing the medical imaging. Another objective is to evaluate the potential of tablet as Teratological tool for assessing chest X-r
nas been low due to the adverse effects that they have caused.In this study, we aim to come up with a novel mouthpiece device de
dary segmentation algorithms and an arti_cial neural network based classi_cation method. Another aim is to evaluate the contribut
CCAI 2012 Challenge on Multimodal Brain Tumor Segmentation (BRATS). Combining all these MRI scans together with the use o
by performance comparison of algorithms and optimum selection of classifier parameters. In this study, 154 posteroanterior chest
opy. Au and SiO2 surfaces modified with amino acid conjugated SAMs were characterized water contact angle measurements. We
ency and modularity, and lower local efficiency compared to rest. Moreover, it was reported that the resting state topology was an i
y study. In the dosimetry study, both tissues were exposed to some energy densities (2J-4J) and power levels which are 200mW-4
was measured by CAPs. For the blocking stimulus, two delays (4, 6 ms), three durations (4, 6, 8 ms), and five amplitude levels rela
logy of unmodified and modified Ti surfaces were characterized by using Water Contact Angle (WCA) measurement, X-ray Photo
ar catheter shaft surfaces. The developed system decreases the process time and increases the repeatability significantly compare
ped and evaluated using two different databases extracted from Alzheimer's disease Neuroimaging Initiative (ADNI) database. All
in individual performance on a spatial working memory task such that individuals who and the task challenging, increase their MD
or a stiffness- matched guidewire core. Mechanical integrity was tested in vitro according to ISO standards. RF-safety was evaluate
for estimating the standard deviation of AWGN in a single image is also performed on real CLSM images. Wavelet transform is th
to MNI152 brain atlas in FSL. The CBF and aBV values of several brain regions were compared between PD-MCI and PD-CN pa
ak parameter maps out of raw MRSI data and overlay them onto reference T2- weighted MR images. FMRIB Software Library (FS
ed on the scaffolds and its release profile was examined in-vitro conditions with Enzyme-Linked ImmunoSorbent Assay (ELISA). B
l and chemical properties of nanofiber mimicking the properties of the peripheral nerve. Hence, PLLA and PLLA/GO nanofibers we
urified pristine Chitosan in dilute acetic acid solution (2%v/v). For Chitosan/GO nanocomposites membranes, solutions of chitosan
slinker concentrations (0.01-0.03 M) were fabricated in order to determine optimal crosslinker concentration. Next, 0.03M crosslink
al patterns were modified with Collagen IV (Col IV), hyaluronic acid (HA) and different amount mixtures of Col IV and HA to mimic
ce osteoconductivity. Physical and chemical characterization of membranes was performed by scanning electron microscopy, con
the strains of infectious agent isolated from a series of samples. It is very important to follow the transmission routes of the infecti
noise. This work aims to develop RF shielding coating methodology on non-planar surface to achieve the highest sensitivity for sig
method to quantify local muscle tissue deformations. Additionally, diffusion tensor imaging (DTI) was used in order to determine r
n Nd: YAG laser cutting system. Furthermore, the distal tip sharpness and force resistance of the three different needle designs we
ion. Furthermore, although the addition of fillers promote the mechanical attributes, PEEK nanocomposite might be still insufficien
and five durations (10, 30, 100, 300, and 1000 ms). For each frequency-duration pair, six different amplitudes were used with 40 r
t room temperature for 24 hours. Scanning Electron Microscopy (SEM), XRay Diffractometry (XRD), Fourier Transform Infrared Sp
his thesis, a zero-dimensional lumped model of the cardiovascular system, consisting of left and right hearts, and systemic, pulmor

esent work is central to that aim. In this context, three neural networks structures with different inputs were developed to facilitate
om DW-MRI via FMRIB Software Library (FSL) tools. Mean FA and MD values were calculated at regions of Johns Hopkins Unive
Vistar rats were tested: Control (no BTX injected) and BTX (0.1 U of BTX injected to the mid-belly of the TA). Five days after inject
use monoclonal anti-mAChR2 was used as primary antibody and goat anti-IgG1 with Alexa Fluor 594 was used as secondary antil
ations. The degree of hotothermal effect was measured by obtaining a temperature profile using thermocouple. The biofilm format
200 µm. Fixation of optical fibers within the glass capillary are achieved by applying medical grade UV adhesives through two micr
n the stiffness of biceps brachii muscle. Seventeen healthy participants volunteered for the study, randomly divided into BFR (n=8)
. The audience for this paper is the research community who works on BG prediction and looking for ways to design a model for a
periaqueductal gray. Fast stimulation was shown to increase the amount and duration of 22- kHz USVs, yet not cause a differenc
ons of 0.025-1.25 mg/ml of ZOL were loaded on 0.2 mg/ml GO. UV analysis showed that the maximum loading happens at ZOL to
ifferent pH values (pH range between 2.0 to 11.50 at constant conductivity) are prepared. Impedance measurements are taken fro
cesses is thought to be in hippocampal trisynaptic circuits are not clarified yet. Neither the reason behind this differentiation nor the
in shock absorption, regardless of performers habitual and/or preferred FPT. Additionally, it is not known how sport specific habitu
MR scanner using a 32-channel head coil. Mean cerebral blood flow (CBF), arterial blood volume (aBV) and bolus arrival time (BAT
ray chest images with pre-marked nodules were given to the five non- radiologist subjects for evaluation under three different amb
antly different from osteoporotic subjects based on both lumbar ($p < 0.005$) and hip classification groups ($p < 0.001$). Hip and lumb
bromide) assay test. Results showed that photobiomodulation effect was determined by energy density, power density, and incuba
py (XPS), Both the hydrophilicity of NFs and the number of the -COOH groups on the surface increased with respect to the duratic
stamibi SPECT was used.SPECT acquisitions were done simulating two separate SPECT devices and different types of parallel h
s. In order to simulate SPECT imaging of a realistic patient with breast cancer, a voxel-based anthropomorphic phantom by ZUBAL
r design is to elevate ankle and/or toe systolic pressures above 50-60 mmHg to promote healing and/or alleviating intractable pain
ls can help to uncover the underlying ionic mechanisms of cardiac arrhythmias. Moreover, they can provide benefits to investigate
3 GUI and Java. The software could be run onWindows, Mac and Linux computers. A retrospective study was conducted to test th
e powder phase provides a composite material that mimics the organic phase of the bone tissue and prevents potential toxic effec
nesized composites. FTIR results confirmed the electrostatic interaction between $COO^{\square}$ groups in carboxymethyl cellulose (CMC)
umin, which is a non-toxic natural compound that has antitumor characteristics, with 5-ALA-PDT to increase PDT's efficacy. First,
ware project was written by Entity Framework code first system in ASP.NET MVC 5 area on SQL server 2016 database, which was
. It was chosen a mobile dicom viewer which is called Medfilm in the Iphone 6S model smartphone. As a DICOM viewer in the com
rize cell differentiation and uptake of amyloid beta peptides by the cells. Upon uptake of amyloid beta, whole cell patch clamp tech
tions were obtained, the animals were separated into three experimental groups: control (no stimulation, n=7), ipsilateral (same he
natosensory mechanisms in TS to be disrupted. This study aimed to extend the GABAergic adaptive dysfunction in TS hypothesis
ed. Typical imaging conditions were utilized from published guidelines and literature. The OSEM algorithms were used for reconstr
ufacture of cement in different proportions. With the use of artificial and industrial waste recycling by providing reduced the amoun
ent were imitated by chemically modifying membrane surfaces with extracellular matrix proteins Fibronectin (FN) and type-I Collage

ntoms. We achieved to produce breast (soft) tissue mimicking phantoms which have acoustic impedance values between the rang
d to provide IDH mutation information. In this study, first, a 3D printed MRS phantom was designed and produced to analyze spati
each hemisphere defined by Desikan-Killiany anatomical atlas. The t-statistics parameters of the cortical thickness values were fo
osyncrasies, namely shape memory effect and pseudoelasticity. The ability of the shape memory alloy to recover high deformation
is provided with an SMA shaped as a spring. The main frame of the electrode was fabricated with a 3D printer. Electrode contacts
ommonly used in the literature as neuronal models, however, there is no agreed-upon differentiation protocol to conduct reliable re
aces. Then laser etching method was applied. Universal testing machine was used to debond the brackets. The second step was
the cells of the prostate (PC-3) and colon (Caco-2) cancer and the results were compared with control groups and each other. Ce
classification algorithms can focus on. In this study, a Doppler radar measurement setup was prepared. The accuracy of the syster
diagnosis method, namely biopsy, always has the potential to devastate the patient emotionally, damage the healthy tissue, or spre

occluder frame was performed on the phantom system mimicking left atrial with 12-30 mmHg pressure. Results have demonstrate
ents. The results suggest that the muscle-tendon complex length trends of the patients are similar to those of healthy individuals. T
ntacting the cube. The virtual environment was tested by recording the step response of each cube with different k constants. The
on of images with x-ray machine. Observations were made for different conditions in image creation. Effects of the range of circula
ings: Highly - moderately unlikely, indeterminate, moderately- highly suspicious. In this study, the classifier performances of SVM,
ol, sine flow and sine volume breath patterns are programmed and the user can choose any of them with the desired volume for ea
v/v, 80:20, 50:50, 20:80). X-ray photoelectron spectroscopy (XPS) analysis and water contact angle measurements were performe
cording to the information gathered. Emotion estimation is often used in brain computer interface applications to improve and conti
mg) with ZOL powder (10 mg) and GO stock solution was obtained by mixing ultra pure water (4500 µL) with GO (500 µL). The fin
esthetized Wistar albino rats. The vibrotactile stimuli were bursts of sinusoidal (5-, 40-, and 250-Hz) displacements (duration: 0.5-s
especially likely to come into contact with vital organs such as the heart and lung. Since the pericardium sticked to the sternum, it h
jected muscle fibers' strain. Hence, to understand these muscle adaptations and the effects of strain on muscle structure and func

noncovalent functionalization method: adsorption of 9-fluorenylmethyloxycarbonyl (Fmoc)-terminated aromatic amino acid-functiona
related PIP and DIP joints to be generalized for the 4 fingers. Inverse kinematics is solved for the angles of the joints in terms of fi
e respiratory system could be measured postnatally. Even there are studies in the literature that aims to predict the severity of the
aOH alkaline solution and then 0.2M CaCl2 and K2HPO4 solutions respectively to improve Ca-P layer attachment and formation. S
come together as aggregate. To decrease the clusters and increase cellular survival, the alginate was also mixed with collagen typ
pport vector machines (SVM) and $K-$nearest neighboring algorithms are used for classification. The underlying connectivity struc
he diffusion in the NAWM of glioma patients with varying mutation status. We hypothesize that using full–distributions of DAIs and
tem require a different treatment and thus it is pertinent that we can distinguish between these psychological states. To address th
hesized that the structure could be protected by coating the collagen nanofibers with PVA. Thermal and spectroscopic analyzes sh
and manufactured. On the programming side, an FPGA design is developed to drive the sensor modules and collect the image d
develop and test control algorithms for a PAP that successfully distinguishes step-up and step-down tasks of healthy population u
feedback stimuli were generated in the FPGA card according to real-time classification. FPGA outputs were sent to custom-made

lay neural network and long short-term memory were compared for this aim. Features that represent sEMG signals better were inv
deep learning methods were compared. The first of these methods was long short term memory (LSTM) classifier with convolutio
esis, as a preliminary study, L929 mouse fibroblast cells and MCF-7 (Michigan Cancer Foundation-7) human breast cancer cells ha
rove discrimination power between grades via using 3D and 2D radiomics features and ensemble machine learning methods. Rad
method, and logistic tensor regression (LTR), which was a tensor-based method, were used as two different classification method
e examined for the degradation and swelling characteristics at 37 ◦C in PBS for 5 weeks. The degradation rate of 3D-printed PDLI
he surface; topography, roughness, surface free energy and wettability alter the cellular response. In this thesis, four different Ti s
40 Hz vibrotactile stimulus applied to human fingertip, over the S1 cortex. EEG data were collected and analyzed in a previous st
(CN), and a total of 257, FDG-PET data were obtained from ADNI. We then found a distance value indicative of the similarity bet
reended optical fiber in continuous mode. The reason of using this specific laser was that, according to the literature, light in 1940
has been achieved. In the second stage, to create an autologous cell culture method, a primary keratinocyte source is acquired di
some other defects. We propose an unpaired image-to-image translation approach,FFPE++, which corrects artifacts in FFPE sli
res of which 1130 were radiomics and 27 were clinical. Features were selected using Kruskal Wallis - ANOVA test followed by Las
biopolymeric shell and a lipid core which could be used to encapsulate lipophilic anticancer drugs. Bovine Serum Albumin (BSA) a
city discrimination limens were in the range of 0.26-0.46 deg and 0.19-0.34 deg/s in the visual avatar. Arduino UNO was used to c
tep photolithography processes have been performed using SU-8 3005, SU-8 3050 SU-8 2005, and SU-8 2050 negative photores
fer learning inside deep neural network architectures. We conducted our study using data from the CHB-MIT dataset, which includ
are sEMG data from upper leg muscles: Biceps Femoris (BF), Gastrocnemius Medialis (GM), Gluteus Maximum (GMax), Rectus
movement was impaired pre-surgery, (iii) the gait deviation index (GDI) increases post-surgery, (iv) the muscle lenghtening velocit
to investigate whether the gait of those patients improved after the surgery by testing the hypotheses: post-operatively, (i) the knee
erent biodegradable nanospheres (NSs), poly(lactide-co-glycolide) (PLGA) and polycaprolactone (PCL) NSs, were identified. For t
taneous representation of spatial and temporal features in the EEG signals. First, graph theory is utilized to model the EEG networ
ist of polymeric shell and lipid core. For these reasons, conjugates made of the Bovine Serum Albumin (BSA) which is a protein ar
se to specific experiences, such as the presentation of a reward-predicting stimulus (S) or an unexpected reward (S*). This conflict
ted bone surface mimicked Chitosan (BSM-CH-GOc) loaded ampicillin sodium salt (Amp) or Tetracycline hydrochloride (Tetra) me
depending on the method, they can be very complex and time-consuming in terms of procurement, cost, time requirement and ap
is HCT116 and it needs a better approach to treatment. Gold nanorods (GNRs) have a high absorption spectrum at near-infrared
istributions we generated to see the effects on instrumental behavior. We hypothesized that our distributions will lead to a time ind
ticles (AuPEI-NPs) to investigate their cytotoxicity and nucleic acid delivery in breast cancer cells compared to free PEI. Resazurin
nt difference in the threshold values from the TE between the CTS hand (M=0.85 au, SD=0.15) and the healthy hand (M=0.87 au,
the test stimulus window measured as dB difference and latency difference were evaluated. The results indicated that all main fa
developed a refractoriness control mechanism that works according to the peak points of the spikes to prevent assigning a spike
e hypothesize that, in an acidic environment, increased permeability of pH-sensitive polymersomes induces controlled release fro
program was used to simulate a commercially available SPECT camera (Siemens Symbia Intevo Gamma Camera) with a crystal
r clinical use, providing stability while using less material. The hollow design is effective, offering strength, screening for cancer re
Unity game engine using C# for Unity scripts and plug-ins. The scores of users are sent to a database using Experience Applicat

ospital, the Cerrahpaşa Hospital, the Haydarpaşa Göğüs Cerrahisi Hospital and in the Medical University of İstanbul Çapa Hospita

g Biomedical Engineers. Keeping this fact and the findings of the survey in account, “model” biomedical instrumentation maintenar
suppliers and government agencies. Primarily, it will be most helpful to physicians in the eastern part of Turkey, where Nuclear M

a very high resolution and the possibility of direct imaging from transaxial, coronal and sagittal planes which are not easily achieve

program developed in chapter VI. Data obtained from a patient simulator is used to simulate the cardiac parameters on the comp

e control units, will be used on the patients in the intensive care, to eliminate the discomforting effects of the cold air and the possi
be improved at the expense of increased computational time. Aliasing effects are reduced by using a low pass filter.

es. - get examination results and request radiology and biochemistry laboratory. see incomes and expenses at the accounting sect

data. The acquired data was averaged to obtain averaged VEP. This averaged VEP was used to check the results of the algorith

about 170 aerobically growing bacteria and covers almost all of the clinically important cases. While choosing the bacteria and the
ruments. If there is a problem found in the follow-up, appropriate troubleshooting and correction procedures must be done. These
pitals and the conditions of these instruments. In the fourth chapter, information obtained during the study on the clinical laboratori

e discussed as error-free compression techniques. Huffman coding algorithm is based on an optimal, variable length code word de

herent signal. This RF signal, FID (Free Induction Decay), is detectable by the nearby RF coil and contains information on the obje

eveloped an IBM PC XT computer using TURBO PASCAL compiler. One of them communicates with scanner and acquires digitiz

'C' programming language for speed and portability to more able computers, perhaps already available, to obtain results similar in

dy support the hypothesis that a one stage filtering procedure can be performed solely with the Nd-Yag laser. But, because of the
an embryo laboratory complex is presented , and the necessary specifications of these equipments are investigate, together with th
time data collection and monitoring real time filtering and averaging and off line data processing. In this thesis the conventional vis

e characteristics of the prestimulus EEG and EP which made it possible to estimate single EPs by clustering single sweeps accord

given task in order to improve the total effectiveness of the image processing software. The implemented algorithms are classified
provide necessary control signals. Without significant delay a stimulator is activated and hence the paralyzed eyelid is stimulated.

alysis of respiratory sounds was performed after they were distinguished to inspiration and expiration phases. Mahalanobis distanc
of the prediction error was computed. This error should be white if the model is adequate. The software implementing the propose
muscle. Proposed modification is elaborated by disregarding the displacement generator, which depends on the cardiac muscle in
erals. The physiological signals occurring in heart chambers are first amplified and filtered, before the analog signals are convertec

nd a CCD card. The mechanical hardware is simply a light isolated housing carrying the last three cards. It is coupled to a student
the Singular Value Decomposition technique. Reconstructed images with the modified Newton-Raphson and improved Perturbatic

nergy absorbed versus loading-unloading cycle number are obtained. Instron Testing Machine was used to run the tensile tests, s
ented in the second part of the thesis makes use of 24 implant materials that were obtained from the orthopaedics clinics of Istanb

ve Probability Theory (Bayes' Theorem) or the certainty factor method. The expert system produces two different reports. The pro
n cassette tapes at the lowest masking level for three weeks.37 patients completed the trial. Three patients (8.1 per cent) found wl
esigned absorption scanning unit. Using computer program, the images were reconstructed by forming data matrices and assignin
a acquisition software. To reduce amplifier saturation and cut-off problems, which might arise when the sensitive amplifiers of the s
works for automatizing detection. For this purpose, using a system developed in the Institute, which includes a PC, two sensitive s
al formulas of previous studies, the Fat Free Mass is observed to decrease with high altitude due to the dehydration during the trip
gies can be selected from the computer through the control software, making the hardware system very flexible. The data collectio
at the trachea undergo very little filtering, and • characteristics of the tracheal lung sounds do not depend on subject's morphology

n. 20% zircon containing sample has the highest hardness value, about 1600 Vickers hardness number which is less than that of
ata. It is shown that ALE converges faster than the AF and AAF algorithms. The correlation between the reference signal and the t
o includes the comparison of the two different analysis techniques. The comparison of the fast Fourier transform and Autoregressi
high, which is very advantageous for EEG and EP recording. The system was tested as a whole by recording real EEG and EP d
made to detect the sleep states of infants, normal and those with asphyxia using the computerized motility monitoring system. The
cm/s. Ultrasonic transducers utilized in the system, and a flow phantom used to calibrate the flow meter have also been produced
function of frequency from 1 kHz to 1 MHz The results of these measurements show that the electrical and dielectric properties of

evels and white blood cell count during haemodialysis using four different membranes (Polysulfone, Cuprophan, Hemophan and C
ned by using optical isolation and isolated power supply. The vectorcardiograms recorded at the end of the study, have the typical

The recorded sounds are filtered using high pass and low pass filters having cut-off frequencies at 80 Hz and l000 Hz, respectively
xact conclusion of comparison requires the close cooperation of multifarious experiments and systematic long term approach.
ents of cartilage which may be obscure in some X-Ray films. Moreover, it can be used to study bone metastasis. Being a safe tech
been removed from the patients because of different reasons, were analyzed. Macroscopical and microscopical studies have beer
we have provided a mathematical model for the stress-strain relationship of the human femoral head articular cartilage using the
ning, since objective means of measurement are not available and trial-error methods must be used. Clearly there is a definite nee
ete square-shaped elements and then Direct Sensitivity coefficients are calculated. Then a current is injected between adjacent ele

ent need for the selection of the best method for calculating Kt/V. The objective of this thesis was to construct a medical database
coordinate determination. However that defeats the whole purpose as the stereotactic instrument used consequently loses its süb
an "empty" water phantom system. The energies obtained by the mass scattering power method in air are significantly close to me
some degree. Interference levels up to 140 dB SPL was measured in 800- 960 MHz range of the carrier frequency. Six of the hea
ent of the bone and show high biocompatibility and bonding characteristics. In this study, high density polyethylene, which is used f
ler various experimental conditions, from various groups of individuals, which comprise steady state responses of flash driven subj
odified copy management technique for updating data, allowing subscribed physicians to collect patient records from distant node
rmination step, in which white noise and various narrow band noise - whose center frequencies match to the tinnitus frequency -, a
em with the standard levels of contaminants, to judge the quality of water treated by the systems used at some hemodialysis cente
t present the database of the developed system includes 98 symptoms and 26 illnesses. However, the system is flexible and this c
ut any purification, can classify 72% of the responses correctly. The averages of the responses classified incorrectly by the networ
a sleep laboratory in a university hospital on over 50 different subjects. Its performance has also been compared to a recent com
c produced best results with 0.72°C temperature resolution and 12.7 pixel intensity/°C temperature sensitivity. In tissue studies, th
europhysiology Laboratory from a twentyfour years old male. These signals are modeled with both AR and Fractal Modeling techn
distribution of surveys and their analysis to determine the properties of hip and knee orthopaedic implant materials and osteosynth
dy mass index. The Fat Free Mass (FFM) and body densities of the patients are also calculated. It was finally concluded that the s
than that of without silane. The results indicate that in dental applications the use of silane may not be appropriate. However furthe
itted to Cole-Cole diagrams using a LMS algorithm; Cole-Cole parameters pe, pi, Fc and a, that are characteristic of blood, are us
study, we aim to accomplish two jobs; 1) to compare the effects of therapeutic exercise and electrical stimulation of hemiplegic har
plotting sensitivity against specificity as the decision threshold for diagnosis is altered on the decision axis. The optimum threshold
ints related kinesthetic cells while lower limb joints related kinesthetic cells appeared to cluster in the anterio-lateral segments with
s have been used for the evaluation of the system. Except for some deviations for respiratory disease patients, the diagnoses of th
pendent on the indentation load. The depth of indentation increases with the increase in the test load and time. There is generally
ing the common protocols for the orthopaedic patients. The temperature rise has been monitored during the scanning. A theoretic
tem and the operations at Dünya Göz Hastanesi. Except for some deviations,the results fall in agreement with those in European a
reased for BIA. BIA showed an increase in total body water fluid with a slightly higher increase in the extracellular fluid compared
ements. These are smaller circuit dimensions and low power consumption. In general, the device can be searched under two mai
cation language to be utilized. We constructed a Turkish speech corpus by recording a script of sentences read by a speaker. The

of the signals, autocorrelation function analysis is used. The results of the surrogate data testing are not perfect, but good enough
odified Newton-Raphson method that uses the finite element model in the solution of the forward problem. To cure the ill- conditio
me "Left-Right-Middle (LRM)" search. The overall view of the system includes finding the roots of the words in the input Turkish me
to the same tissue therefore easier to utilize in conventional segmentation algorithms. To be able to calculate true Ti and PD para
patient are manufactured and applied to two total laryngectomees. These patients are trained to perform exaggerated articulation

ɔrmal and abnormal features of any data, for pathological discrimination. The calibration routine makes use of an inverse filtering a
ɹding drug therapy, biofeedback, electrical stimulation, acupuncture, hypnotherapy, and acoustic masking. Among these acoustic ı
An Automated Real Time Viscometer with the microcapillary tubes was developed using reusable dome transducers, high gain, lo
ɔlder than 20) have been studied. In the infant group 8 myopathy, 10 normal and 10 neuropathy cases and in the adult group 12 m
ımü içindeki diğer bütün çalışma verilerinin akışının otomasyonunda kullanılır. Bu çalışmanın temel amacı, istanbul Üniversitesi Tıp
ɔy anyone without much prior experience in computers. PATHOS has been developed to meet the demands of the Turkish hospita
ɨity, moment invariants and Fourier descriptors up to ten, are calculated. The process starts with a segmentation phase, in which a
ɐvelopment of intractable epilepsy in adults who have had prolonged seizures. Therefore, it has been hypothesized that the "hippoc
crosoft Visual BasicT, version 6.0 and runs under Microsoft Windows 95T - 98T - MET operating systems and IBMT PC and IBMT
ɨhe human head and the antenna radiated in 900 MHz. Two geometrical models for the head can be considered, namely the spher
ɔepartment of Anesthesiology and Reanimation. A one-day training is held for all the doctors that will use the program. The previou
ysics Department, and Î.Ü. Çapa Medicine Faculty, Biophysics Department. The several electric field levels at 900MHz and mobile
ɔmic status, pre eclampsia, age, weight, or process variances such as smoking, alcohol, neglected medical tests. Unfortunately, ve
up I femurs displayed a higher percentage of nonunions and secondary axial displacements than Group II. Group II had a higher p
ıd receiver is supplied via serial port. To control data acquisition process, a user interface is developed. The receiver can be tuned
These observations may suggest that the acetyl cholinergic input to intermediate gray layer modulates the execution of visually tri
ɨray bases were collected. After alignment of casts and trays using a distance based alignment routine, the trays, which most adop
ɐ model of the tongue, whereas the internal points enable us to reconstruct the model and achieve an extension analysis for the to
ıissure. It is also independent of zooming factor during the selection of analog points from a zoomed CT image and an atlas overla
voked potential (VEP), somatosensory evoked potential (SEP), brain stem auditory evoked potential (BAEP), and event related (co
l 3 of them on the operating table. Particle counting is performed according to ISO 14644-1: 1999(E) Standard by using 3 1 0 Mod
ıd Borland C++ Version 4.5 compiler. The toolbox is capable of displaying the MRI/CT images in 2-D and 3-D as well as performin
s detected by viable bacterial agar plate counting and by observation of turbidity in suspensions. The experimental results showed
ɨardium. In this initial study, the curve parameters are examined with probability density function between normal and diseased hea
g of these sounds has been suggested as a potential tool to characterize TMDs. The relationship between orthodontic treatment a
o use for restoration of the tooth. In classical SEM studies, the material to be examined is first coated with another material and thi
ıeasurements, and eventually cause misinterpretation of the BMD. Although DXA is the gold standard in the diagnosis of osteoporo
g. In wavelet-based classifiers, the signals belonging to segments are decomposed to five levels using wavelet transforms and the

valuation problems accentuated due to presence of intraoperative edema, paradoxical stress relaxation of vocal folds, inadequate
ɐr hand, patients can access their medical records using web-site http ://www. e-healthportal. com via a secure channel. This site v
ırrogate data testing has pointed out the nonlinearity in the data sets. Correlation dimension values were observed to show some c

nspiration or expiration phase. Based on the information they bear and the different mechanisms that generate them, the stored lu

ole (till exhaustion). After a five-minute rest, the exercise protocol was repeated. The power spectrum was derived from the raw SE
o detecting the embolic events is developed for off-line processing. Keywords: Doppler Ultrasound Audio, gas bubble, Teager ene
d of brain tissue after bilateral laser induced and electrosurgical lesions, CD68 specific marker was used for the immunohistochem
ior and ventral axis), and number of viable cells around lesions. Results provided data for greater laser induced ablation areas with
ensing applications. For instance, binding of a protein or other biomolecules can be monitored by observing the wavelength shift of
nuçların kısıtlı olmasına karşın Inverse Adding-Doubling metodu ile önceden kayıtlara geçmiş değerlere çok yakın sonuçlar elde ed
e compared with a commercial HAp powder. In order to get porous HAp structures, naphthalene was added to HAp powder with pa
ystem of University of Pennsylvania. FOI is designed by using inexpen sive photodiode (PD) detectors and LEDs working in the ne
nsport and detection processes. Some of the applications of the Monte Carlo method in nuclear medical imaging are: Detector mo
ned. ERP reflections of these modifications both in the time domain and in the time-frequency plane were explored in order to assi
The objective of the optimization was to minimize the maximum stress in the cement layer, while maintaining a reasonable stress l
ve events with functional NIRS. For this purpose, Target Detection Task Procedure was performed. We present a preliminary repo
asured by force sensation. The mass assessment is performed by using a friction coefficient model. Next a mathematical model rel
ense environmental noise. Signals are amplified with two HOdB CMRR instrumentation amplifiers. Thereafter, three 8th order ban
e NGF induced TrkA Receptor Signal Transduction Pathway in PC 12 cells by simulating; Shc/Grb2/SOS/Ras/c-Raf, and, FRS- 2/S
ely are performed for different dipole parameters for evaluation and comparison. The center of grav ity (COG) approximation is use
diation with helix antenna in both experiments. The near electric field measurements of the mobile phone antennas are carry out at
e that consists of a high- voltage, high-power supply unit, a triggering unit (TU) whose frequency can be synchronized with the func
protein transcription factor (API) in the nucleus. To simulate cell replication potential, biochemical kinetics simulation software pac
ng the radiologists, with reference to guidelines. The control limits for the operators are set to the average values ± two standard d
vall. Once the relative position of the tags has been characterized by a string of detected tag points lying along tag lines, this inform
ith the development and modifications of Aubert's neurovascular coupling model and also to investigate the neurol responses durin
cells due to the low energy 2.55 mW (324.68 mW/cm2) 632.8-nm He-Ne laser application. The effects of laser irradiation on the pr
of your heart with each beat". The blood that travels around the body is pumped from the left ventricle and therefore the volume o
n microsphere are performed. Due to the microsphere radius and the system resolution limit the expected MDR shifts have not be
ere recorded. EEG spectral and AEP profile analysis were performed. Medial septal colchicine lesions did not alter spectral measu
ical applications, but generally for the blood (or similar aqueous media) flow quantification. Application of this technique to the myo
d in the related standards for human being and medical devices. The existing levels of electromagnetic fields were obtained by usi
th hemiplegic CP for correction of dropped foot. For this purpose, a single channel drop foot stimulator was used on the tibialis ant
ssessment of each parameter requires a different combination of pieces of phantom. Tissue substitute materials are used for prod
imulation computer using the same DAQ Card. The system in this study was designed and implemented currently for Siemens MR
on results are compared with respect to Mean Distance Difference and Root Mean Square Analysis. The measurements on skull su
er analysis. The purpose of this interface is to give the opportunity to students to analyze ECG, airflow, lung volume and GSR data
change with tissue optical properties, a large range of parameters was studied, including the background absorption coefficient, th

ss and secrete the vascular endothelial growth factor, VEGF. In the endothelial cell model, endothelial cell response to this VEGF
nd knee joints of thirty children of all five-year-old age (Twenty normal children and ten children with Cerebral Palsy). Sensitivity va
(HBO2) and Oxygenation (OXY) parameters of fNIRS measurements and Root Mean Square (RMS), Mean Frequency (MNF) an
ıde: (1) difficulty in data acquisition and analysis because of the low signal-to-noise ratio of the EGG; (2) difficulty in interpreting EC
exes such as slope, time-to-peak, and contrast enhancement ratio (CER). It was designed as a MATLAB package for reading, disp
ked using a 250 Hz stimulus presented prior to the 40 Hz test stimulus. In this study the masking functions of subjects were found
ansmission unit, exploiting the RF communication technology and a PC based software for data logging and analysis. WFOI is des
software and obtained 2-D and 3-D images of estimates of sound producing sites in the heart. The original system called CARDIO
mponents. This analysis could give us less complex scalp maps for source detection. In this thesis, in order to see the topographic
ch is composed of three lead ECG and its peripheral circuits, power units and digital part which consists of PIC Microcontroller, TC
e providing a valuable inspection tool for preventive maintenance. The accuracy of the instrument has been tested against calibrat
hose for healthy subjects supporting that migraineurs' responses are suppressed for not only Hb dynamics but also HbO2 dynamic
er and spectrum is analyzed in PC with software. In this thesis work firstly Cancer Scanner system reliability was tested on lamb br

ected using an infrared scanner. This method is a non-invasive method that requires no catheter insertion, ionizing radiation or con
rocessing methods that are needed to make a radiograph fit for analysis and steps to find regions of interest and assign them TW
gh a standard analog to digital converter after being amplified for precise measurements. Interface between the hardware and soft
nodule from voltage controlled current source in order to generate continuous wave 809-nm laser light. A current sensor was used
ment data were determined for either native or coagulated tissues. These measurement data were diffused transmittance, diffused
e important objectives for the osteoporosis community. In this study we scanned 28 densitometers with one ESP (s.n. 03-208) and
d the tool (in 22 slices) compared the mean SCI was fun to be 61,8% with the standard deviation of 16%. All the region were ident
ıtial equation with delay is developed. 6 men and 4 women subjects performed isotonic forearm finger joint flexion exercise with tw
functional near infrared spectroscopy synchronously with polysomnography; cerebral tissue oxygenation and hemodynamics of six
thod (RSM). Monte Carlo has a wide usage in nuclear medicine imaging, however RSM has not been used much in this area. RSM
l to minimize these effects. In this thesis work we present a novel improved homomorphic filtering method to minimize artifacts cau
ensure that the measurements were independent of the subject's criterion. No statistically significant differences were found betwe
le to detect the presence of a layer with a higher absorption coefficient than the upper layer and its depth using the fact that differe
extent of patients' visual disability and functional performance problems. The simultaneous lightness contrast (SLC) effect demons
ore controls all of the parameters. A new program code has been written for controlling stimulation parameters and storing them fo

s its opacity decreases to result in an increase in light intensity on the other side of the material by 4%. This phenomenon stabilizes
nstruct the original signal. Different types of wavelet families are used to analyze the effect on CR and PRD. More conventional di
sis system and 2 force plates. The present results led us to four major conclusions reflecting the effects of back load on the STS m
ansmitter receptors. Three cognitive paradigms were designed to generate auditory ERPs. ERP recordings of each polymorphic gr

ned by X-ray diffraction (XRD) and infra-red spectrometer (IR) so as to compare this characteristic of the final product to that of sta
lly blinds. Thus, the tactile mental rotation concept and whether visual information is required in mirror image recognition and in m

to get a more biologically plausible model, the learning rule was changed to generalized recirculation (GeneRec). Furthermore, ins
by desiccation method. Maximum irradiances, maximum energy densities and water content were compared. The result of this res
rt (thus more reliable) fiber tracts by conventional techniques (Splitting step) and ’then group these short tracks according to an es

air determined by augmented duration of immobility in the second swim test. On the other hand, the temporal learning acquisition i
ultilayer Perceptron. Matlab programming language was exploited for writing the code of the algorithm. Overall 150 subjects were u
roxcope 301, an improved version of Niroxcope 2011, locally measures the deoxy-hemoglobin (Hb) and oxy-hemoglobin (HbO2) cl
ging with high resolution has been investigated through simulations. We aim to reduce the system cost and to improve system perf
als based on continuous block Lutetium oxyorthosilicate crystal (LSO) (16mm x 16mm) coupled to a PS-PMT (Hamamatsu H8711-
sustained regular discharges lasting longer. SA I and SA II units were differentiated on the basis of several features: i.e., spontane
he duty factor is increased, but would stay constant with respect to frequency. The visual rivaling stimuli used were a square and a

l model. The posterior probability distribution of dipole parameters including the number of active dipoles are sampled by Markov c

ne server. IEEE 802.11b, as the wireless communication protocol, opted and involved in this design for ensuring data transmission
a setup is designed, built and tested to investigate microbubble cavitation and its possible effects on kidney stone destruction in co

the lesion detectability less susceptible to patient variations such as breast and lesion dimensions. The breast and the lesion wer
v. The model simulations that used the total number of spikes as the intensity code predicted the experimental results better.
lthy ones, whereas in 0.13 Hz and 0.25 Hz this difference is approximately 1.5 folds. Time domain analysis has shown that the am
ource reconstruction and fMRI statistical parametric mapping methods. The visual stimulations are ranging from 2 to 10 Hz. The fM
s study, 15 adult, right handed cases with DSM-IV diagnosis of Attention deficit hyperactivity disorder (ADHD) were evaluated with
pacting the detector surface and the photosensor output are simulated using DETECT2000 simulation platform. The 64 outputs of
neutral position. Local oxygen consumption (mVO2) and time course of recovery (trec) of FDS muscle were measured by function
mation about the position, size, and hardness of the lump. Because it is difficult to verbalize tactile sensations, tactile sensors shou
e prepared blood component; to prepare annual summations, and to manage QC processes effectively. It reduces the risk of prod
h after seeding, irradiation was started. Cells were exposed to laser irradiation for three consecutive days. Cells were counted at 5
s is 32.8. During data acquisitions, the subjects are instructed to produce Turkish phonetic vowels and the resulting sounds are re
n from different types of tissues (lamb kidney, heart and brain). Moreover, the effects of different power levels (2W, 3W, 4W) and d

erebral blood volume changes. Requirement of more data and additional measures for following possibly related phenomena such
lone, was not enough to comprehend the underlying reason of band-pass filtering characteristics of PC. Homogeneous structure n
s found that specific brain areas are responsible for generating specific oscillatory patterns and energies of these patterns are sign
ting coherent and collimated lights to the optical fibers via the optical converters. In addition, fiber optic cables with large core diam
are used in the subjects. Quantitative CBF maps are obtained as a result of both methods; additionally, transit delay of blood was c
ively (1) at lower muscle lengths, partial fasciotomy removed distally directed net epimuscular loads acting on EDL (2) at intermedi
markers attached to skin of patient. In this approach, first markers are detected and located in both image sets, then least square n
eating the second step), (4) the fasciotomy condition and (5) TA+EHL removal condition. EDL distal and proximal length-force char
o use the temperature data to intervene with the medical procedure. MRTI (Magnetic Resonance Temperature Imaging) with PRF
nt subjects, who were asked to take an n-back test involving WM load. A gamma function variate was used to model the hemodyr
lated from MRI images using four sampling points (four sets of images of the same region with different parameters) and using Le
arity measure is useful in voice signals with harmonic component, in highly irregular signals like screams and barks, the detectable
nents increased in parallel with increasing breath-hold durations in free divers but remained almost constant in the control group. S
uscle, further force reduction was small (e.g. distal optimal forces for Case P and PI-D are 68% and 64% of that of intact muscle).
emoglobin oxygenation increased with the increasing working memory load for both groups; there was no significant hemoglobin
jects perceived motion first, they would report luminance values back in time from the instant the motion had occurred. When the l
n the SEM and AFM studies. Drop in ductility and toughness was observed in used processed fibers. This study showed that dialy
used-processed fibers decrease. The microscopic studies depicted some morphological changes such as increase in pore size an
. The accuracy and precision of the prototype device are checked against the HP 4284A LCR meter using different RC test loads.
cing the currently applied paper-based patient satisfaction survey. The collected answers can be measured, benchmarked betweer
mmobility in the second swim test compared to controls. The fact that light pulses in the early part of the dark phase had no amelic
lata showing the relationship of peak torque-angular velocity for quadriceps muscles quite well. As a result, although many parame
light, and operational amplifiers. The instrument's circuit design is based on the analog circuit design. The ability and e activeness
ess, one-plane 3.2 mm long clear corneal cuts were done using a pre-calibrated knife. Laser power, irradiation duration, energy de
of liver tissue are calculated in the same conditions. Moreover, fluence and thermal contours of liver tissue are measured for differe
evels were calculated. As the MA task got harder, work load increased, performance decreased and the change in [HbO2] increase
comparison" statistical technique. 20% of the radiographs were then re-analyzed to assess intra-observer variation. The 95% confi
ximately 1% of the population affected. In this study, attentional processes in schizophrenia spectrum have been examined using
ly Patient Monitoring GUI. Based on the user's selection, the GUI displays the type of beats that flow on the screen. In the backgrc

intervals are calculated. The responses obtained from the frontal electrodes and fNIRS channels are averaged as well as the resp
nverse Chebyshev based (sigma-delta) modulators are designed and implemented at the behavioral-level to enhance SNRs. The
time of the method and the expense of the process makes this method inapplicable to clinical applications. In this study, three diffe
s study, 40 and 230 Hz vibrotactile stimuli were applied to 10 adult subjects (5 females and 5 males) and psychophysical detectior

analyzed to test the statistical difference between control and the treated groups. The results showed that treatment groups paraly
ft channel. Sequentially in order to match the signal between the -10 dBand 100 dB, its volume is readjusted in a special functiona
. Additionally spike rate increased significantly at 10 μM ($p<0.05$) and at 100 μM ($p<0.05$), but decreased at 1000 μM ($p<0.05$) com
neans that it is not better than arbitrary guessing. These experiments should be conducted by using many images and observers i
Keeping the ankle and knee angles fixed (at 100 and 120 respectively), sensory unit recordings were taken from both tibial and per
experimentally for debonding ceramic brackets as a new and established method. Using Lasers in debonding procedure reduces r
l using real time SPC techniques (X control chart and Cusum control chart), which permitted monitoring, controlling and improving
f new systems has been accelerated in last years and implants became a treatmentmodality in modern dentistry. Even though ther
. Remote control system and its sub-modules let users/researchers connect to distant computer systems (e.g. one at laboratory, o
ne the problem we integrated a serial robot arm with a parallel end-effector. The serial arm is responsible for handling the end-effe
MD index was found to be higher in RT group ($p = 0.006$) and BMD value was found lower in the non-fractured regions of the irradi
activity, or the gastric electrical slow wave, which is responsible for controlling the maximal frequency and the propagation of dista
amplitude of glutamergic currents is dependent on its concentration. To eliminate the rotenone induced cytoplasmic second mess
he time points of the data analyzed. The software finally provides the user with DICOM SR and rich text format (RTF) output incluc
o the widely used manual methods such as GP, TW2. Inclusion of carpal bones for assessing bone age of children is mandatory. H
ce during minimally invasive interventions. In XFM, pre-operative MR images are segmented, 3D structure of target area is recons
emisphere. Therefore, in each hemisphere, maximum and minimum points of blood volume showed no significant difference for m
tures or patterns in the spontaneous or event related EEG activity. After investigation of the components in EEG, motor imagery re
d in both groups after each session compared to the beginning of the session. In excessive game players, skin conductance fluctu
alfunctions in the hardware etc. For diseases with long term follow-up, the images are compressed and stored, for being able to e
y out and complete the maintenance process remotely, making use of proper maintenance procedures. In the proposed study, a n
done to determine atrophic regions in the brain of AD patients. For this purpose, a fully automated software (FreeSurfer) was use
2-ceramide, depressed the amplitude of NMDA currents, as well. In addition to that, sphingomyelinase which activates the formatic
s result may be significant for spastic muscles since they are reported to operate at lowmuscle lengths. Also range of active force e
er history effects in rat muscles. In order to achieve this goal, length force graph was obtained on the extensor digitorium longus (E
nodal strain and for strain distributions. These effects were shown to be more substantial for compressive loading compared to lo
y data (100 kHz-1MHz) are used in fitting the Cole circle where effects of electrode polarization are negligible. It is later shown tha
and tested for size-by-size correlation. Then, the bacterial counts measured at the same site are cumulatively added together and

ologists from Acıbadem Hospital examined these radiographs both on a medical grade Reference branded LCD monitor and on th
are measured by buckle force transducers at five different knee angles (of 120°, 90°, 60°, 30° and 0°). Mean peak Gracilis muscle
oal soft tissue information gathered from a priori imaging modality is used. MRI is the best candidate with excellent soft tissue cont
ped a hearing aid analyzer which uses a Real Ear Measurement (REM) method. Determining the electroacustic performance of he
on area. Radial fiber, which is a new technique for laser light delivery, emanates the laser energy homogenously circularly to vesse

a function of stimulation distance and contactor size. Also, mechanical impedance of the skin was measured at 5 different locations
ues (PLV) between each pair of electrodes were computed with the help of the Hilbert Transform. After applying threshold to PLV
assess the results of the statistical inference for the group level, the variation of the effect sizes with respect to stimulus frequency
ng (SPM) package in Matlab. Normalized MR images are used to identify the lesions in the brain, to calculate its volume and to lab
to passively touch the objects. The subjects were instructed to explore the objects tactually and decide if the pairs were same or d
acquisition software are tested on phantom and cadaver tests. Furthermore, effects of several image enhancement techniques on
ases in intrapulpal temperature changes were observed almost below the threshold value 5,5◦C. The findings revealed that 1940-n
l structural similarity analysis. The proposed noise removal algorithm resulted in images with less artifacts. Preliminary tests of the
◦C , which is the critical temperature. After the bonding of ceramic braces, they were debonded from the enamel surface using me
e problem of choosing the number of clusters beforehand a soft clustering approach was implemented. It is a novel method which
narginally significant (p=0.056), whereas the frequency had no effect (p=0.376). The effect of the frequency on the modulus was fo
ich were ad- ministrated 14-days of low dose laser irradiation. 650 nm, 25 mW laser irradiation in continuous mode was applied to
sion was also investigated, using a graph-theoretical metric "global efficiency". It was found that within-subject consistency (0.61 ±
y stimulus from 13 subjects. Raw EEG data has been processed by using epoch extraction, event related potential (ERP) averagir
lood cells within the blood will be polarized, creating electrical dipoles. Due to the interaction of these dipoles and the electromagn
asurements during cognitive task were preprocessed to remove artifacts and prepared for further analysis. Pre-processed signal s
s desing was to form a database which incluced color data of control solutions of CombiScan 500, 40 patients analyzed by CombiS
only for stationary data, require prior information in model selection, and applies to acyclic directed graphs. Dynamic Bayesian ne
independently. In this study, we declare a novel all-fiber mode-locked laser with adjustable pulse duration between 1 - 3 ns and se
trates were modified with amino acid conjugated self-assembled molecules (Histidine, Leucine and Tryptophan) and also with type
d several times to fabricate BSM-PLA scaffolds. The fabricated BSM-PLA scaffolds' surface characterization results showed that t
correlated with the changes in the degree of hemolysis. Red blood cell (RBC) suspensions collected from 7 male volunteers were u
s and the passive condition were signifiant (p=0.023 for passive vs. slow; p=0.024 passive vs. fast). Interestingly the threshold shif
or Tm:fibre and 12,14 and 16W for diode laser). The samples were stained with H&E for microscopic evaluation of depth of ablatio
ly was to investigate the PDT safe region for bactericidal application and to demonstrate the importance of PDT dosimetry. In this
nagements attitude against privacy and security shows that the responsibility is totally to IT and Biomedical Engineering Departme
embranes and nanofiber meshes were prepared to enhance biocompatibility. PCL nanofiber meshes were produced via electrospi
circuits on the basis of in silico evolution of the corresponding network model.The approach starts with a randomized gene netwo
n enrich the literature. As the results are concerned, in group comparisons, no significant differences are found in spatial maps. Or
d total planning time of TOL tasks were compared with neuroimaging findings. Right superior lateral prefrontal cortex (RSLPFC) ac
), and ellipsometry. After characterization results were acquired, the cell culture studies were performed with L929 cells. In order t
combination of various light sources (LD, LED, etc.) and detectors aims to pinpoint the activated regions of the brain relying on th
rson and Covariance coeffcients do show a perfect correlation. However, Covariance coeffcients also define the direction that the v
applications were performed in order to study 8 laser parameter combina- tions with each parameter combination repeated 8 times

ıny programming environment. Sinusoidal, square and triangle waveforms, in different frequencies, amplitudes and pulse widths, c
:h testing. The results show that, KT application over the tibialis anterior muscle (TA) causes sizeable and heteroge- neous tissue
ic contraction (MVIC) of sustained plantar flexion results in a serial strain distribution along the muscle fibers of medial gastrocnem
ray images with nodule.In this experiment, the data set consisting of 60 chest radiographs were assessed by three experienced ra
esign for the treatment of mild to moderate obstructive sleep apnea which is more comfortable for patient use, yet as effcient as cu
ion of CAD systems and accuracy of radiologist segmentation on raw chest X-ray. The standard digital image database with chest
of brain imaging techniques created the probabilistic brain tumor map. Following brain extraction, image registration is implemente
t x-ray images included in JSRT Database were used as test materials. The database consists of 100 malignant and 54 benign no
e aimed to manipulate and change the adsorption of the proteins (Albumin, Fibrinogen and Immunoglobulin G) on these surfaces u
indicator of cognitive performance. Performance in n-back task was positively correlated with global efficiency, local efficiency and
400mW-600mW-800 mW and 0.5W-1W-1.5W-2W for 1940-nm and 1470-nm laser applications, respectively. The last two laser er
ative to the excitation threshold of C fibers were used. The excitation characteristics were also measured. In the CAP traces, the C
electron Spectroscopy (XPS), Raman Spectroscopy, Atomic Force Microscopy (AFM) and Scanning Electron Microscopy (SEM). A
ed to alternative lithography based techniques also used for low profile active device development. The validation and calibration t
normal and Alzheimer's images are stored and ordered in database. First database consists of 259 normal and 138 AD patient wh
activity substantially to improve their performance. This suggests that MD activity tightly reflects the executive demand of an indivi
ed in vitro according to ASTM standards, and in vivo in swine in a 1.5 T MR system. Tests were performed on the prototype and a
ıe most effective candidate for noise suppression since it is capable of preserving energy conservation during inverse transformati
tients. The differences in histogram parameters of CBF maps, which were estimated with and without aBV correction, were asses
SL) tool was used to register metabolite maps overlaid onto T2- weighted MR images to an MNI152 brain atlas. A Mann-Whitney ra
SM scaffolds was modified either with hydroxyapatite (HA) or collagen type-I (Col-I) to construct these scaffolds, similar to the bor
ere prepared via processing PLLA and PLLA/GO solutions with electrospinning and solution parameters (the concentration of PLLA
containing various amounts of GO (0.1%w/w, 0.2%w/w and 0.3%w/w) were prapared using solvent-casting method, Chitosan/GO
er concentration was kept constant and scaffolds with different GO concentrations (0.5-2 mg/ml) were prepared in order to determ
corneal endothelium biochemically as well. Chemical modifications were confirmed with Fourier Transform Infrared Spectroscopy
focal microscopy and spectroscopy techniques. SEM and confocal microscopy imaging of membranes showed that bone surface t
ious agent in a hospital, country or even around the world, in order to take the precautions to stop the epidemic. Although DNA fin
ınal transmission by eliminating , noise generating factors. For this purpose, a compact housing design was constructed for the pie
muscle fiber direction. Combination of those methods allowed quantifying length changes along muscle fibers, in vivo. Presently, th
ere tested in vitro (silicon mold). According to the results the needle with high walled biopsy groove was preferable. Equally spaced
t regarding inducement of bioactivity. Many studies show that presence of L-arginine (L-Arg) assists cell attachment and proliferati
epetitions to obtain detection probabilities in a two-interval forced-choice task. The data points were fitted by sigmoidal curves to fi
pectroscopy (FTIR), Raman and X-Ray Photoelectron Spectroscopy (XPS) analyses were performed to characterize the coated ar
ıary and coronary circulations, was established. A novel time-varying elastance generation method, originating from biomechanica

ankle movement and their performances were evaluated. The results show that if a device in which only EMG signals are to be us
ersity (JHU) 81 WM atlas and Montreal Neurological Institute (MNI) atlas. For each region, a Kruskal Wallis test was applied to det
tion, injection of BTX into the TA: (1) altered total and passive EDL forces exerted proximally and distally and after imposing muscl
body. Ethidium bromide was used on additional sections to determine layer thicknesses and total number of cells within a layer. St
tion capability of E.faecalis was observed by calculating Optical Density (OD595) of samples 0, 24, 48, and 72 hours post- aPDI tr
ro-holes formed with CO2 laser processing on the glass capillary. The initial distance between the fiber endings is adjusted by usin
) and HI (n=9) groups. BFR group trained with 30-40% of their 1 repetition maximum (1-RM) and HI group trained with 75-85% of 1
n algorithm for their selected set of inputs. This study presents a guide to selecting an algorithm and build a model for in silico simu
e in c-Fos expressions. Furthermore, number and duration of calls emitted in the last minute of stimulation were found to correlate
o GO ratio of 1:0.2. This loading was obtained when 1 mg/ml of ZOL was initially loaded on 0.2 mg/ml of GO nanoparticles. The dr
om an AuIDE at a frequency range of 20 Hz to 10 MHz, with an amplitude of 10 mV using an Impedance Analyzer (E4990A) to ext
e circumstances under which this phenomenon occurs is discovered. In this study, CA1 and CA3 pyramidal neurons with AcDs an
al training (SSHT) in FPT affects landing mechanics. Presently, to fill those gaps FFL and THL mechanics were analyzed during d
T) maps obtained from arterial spin labeling MRI (ASL-MRI), fractional anisotropy (FA) and mean diffusivity (MD) maps obtained fr
ient lighting settings. Each image was present on the screen for 10 seconds; therefore one session took 66 minutes for each subj
bar spine DXA BMD values were significantly correlated ($r = 0.55$, $p < 0.005$). The dominant arm BIS characteristic frequency, con
ation time. It can be proliferative or none and even under some circumstances inhibitory. For future studies, same paradigm shoul
on of CAP treatment. Results demonstrated that CAP treatment significantly enhanced peptide conjugation on surface of NF. Oste
ole collimators. It was found that the optimal parameters were LEUHR collimator, 16 iterations and no scatter correction for Sieme
torso phantom was constructed. Image reconstructions with or without attenuation and scatter corrections were performed with C
due to intractable ischemia for patients with CLI. To simulate the blood circulation of related anatomy, in vitro CLI model phantom
the drug-ion channel interactions and come up with new treatments for cardiac disorders. On the other side, the complexity of the
e suitability of the analysis algorithms of BreastIS tool for the use with clinical dataset. DCE-MRI data of 16 and DWI data of 6 bre
t of CPCs degradation. In this study, CMC which is a soluble cellulose derivative became a hydrogel by esterification with CA. Gel
and Ca2+ ions released from CPCs. Hydroxyapatite (HA) formation was observed and evaluated by XRD and SEM analysis on th
5-ALA mediated PDT and Curcumin antitumor characteristics were evaluated on two cell lines, PC-3 and Caco-2. Then, the deterr
s created on the Microsoft Azure Cloud System server. The upgrades and maintenance of the system could be done while the sys
nputer, Radiant Dicom Viewer Version 4.1.16 was executed to examine the images in the Viewsonic VA2410-mh model monitor. F
nique was used to observe changes in transmembrane current in control and BDNF groups. Furthermore a Hodgkin Huxley base
misphere as stimulation, n=7) and contralateral (opposite hemisphere of stimulation, n=7). The results show that basal forebrain s
by assessing the detec- tion and difference thresholds through a psychophysical vibrotactile battery. Thirty TS children (7 female,
uction. Seven parameters were specified as attenuation correction(+ ; -), number of projections (120; 90), collimator type (low- en
t of clinker in the cement, thus the cement production process, the amount of fuel, energy consumption and CO2 emissions reduc
en (Col-I). Human fetal osteoblast cells (hFOB) were seeded on these magnetic particle embedded bone surface mimicked scaffol

ge of 1.373±0.031 and 1.707±0.036 MRayl. Our acoustic impedance measurements provide the result of 1.693±0.085 MRayl for th
ial distribution performances of MRS sequences. Then, 82 glioma patients, whose IDH status have been determined by immunohis
ound to be decreased in 24 regions in AD patients compared with the HC subjects. Additionally, the linear correlation values betwe
ns makes them appealing for various applications. Here we use both of its hallmark behaviors, shape memory effect and pseudoel
were produced with chromium and gold coated with PVD technique on polyimide. The overall design performance was evaluated
search. In this thesis, differentiation of SH-SY5Y cells into neurons was optimized, then Parkinson's Disease was modeled in SH-S
inoculation of bacteria to measure colonization of bacteria on the teeth after laser etching and acid etching techniques. There were
ll viability was monitored by MTT test to measure the efficacy of the dose of AuNP-ICG used during these experiments. On Caco-2
m was tested with a linear actuator and it found to be accurate enough to measure the chest wall displacement. 5 breathing patter
ead the tumor. In addition, studies of ccRCC indicate that there is a correlation between cancer CT imaging features and gene exp

ed LAA was successfully occluded and suggested that the percutaneous LAA closure with coated nitinol frame is favorable. The m
The difference between the minimum and maximum MTL is 13% and 8% for healthy ST-GRA muscles respectively, while this diffe
cube deformed according to the model. Six users were asked to perform psychophysical trials on the virtual environment for stiffn
r movement and step size were analyzed. Also, influence of angles between selected plane and axes in image formation were stu
RF and ANN are compared using 1018 cases, 907 nodules and 110 extracted features. Experimental results demonstrate that bes
ach.These flow patterns can provide relative comparison of individual respirators by measuring the performance under the same b
ed for the characterization studies of all of the modified surfaces. Human osteoblast cells culture studies were performed on the su
rol the communication between man and machine. In recent years, emotion estimation studies based on brain electrical activity, wh
al concentrations that used in this study were for ZOL were 200 µM, 50 µM, 12.5 µM and for GO were 11.7 ng/mL, 2.91 ng/mL, 0.
, amplitude range: 19 - 270 μm) applied on the glabrous skin. Performance comparisons were made between matching resea
as to be torn in some surgeries, where the bar is in direct contact with the heart. For all these reasons, it is very important to place
tion, the Agent-Based Modelling (ABM) method was used. The advantages of this method over other methods is that it allows stud

alized with poly(ethylene) glycol (PEG) chains onto pristine SWNTs. For that purpose, among biocompatible agents, we used a Fm
ngertip position. Transfer functions are derived for the change in tendons lengths during flexion to find the appropriate design of th
disease in utero, none of them widely accepted. The methods used to estimate the degree of CDH include lung-to-head ratio, tota
Simulated body fluid (SBF) was utilized to mimic physiological conditions of the body throughout immersion duration of the sample
e I at a ratio of 2:1 alginate/collagen. In both cell lines, the alginate/collagen hydrogels did not signi cantly alter cell proliferation or
cture of the EEG data is obtained using the distance and neighboring information of the electrode locations on the scalp. The resul
DTEs can better represent the complex tumor effects in the NAWM in comparison to usual summary statistics. In this study, we ha
is issue, our group has developed a novel questionnaire (HEFFORT) that we administered to a representative sample of Istanbuli
ow that collagen and PVA are present in the obtained nanofiber structures. With optical and scanning electron microscope images
lata in a parallel concept. A microprocessor program finally, reads the memory blocks within the FPGA, and transfers the image da
using exclusively sEMG. A specific aim was to assess the effects of normalization and windowing procedures of sEMG data on pre
power amplifiers to drive two actuators (Haptuator) placed on both upper arms of participants. The classes were mapped to discr

vestigated. Minimizing the number of sEMG signals from lower leg muscles can make prosthesis flexible while reducing the numbe
nal autoencoder which did not need any feature extraction. The second method used the spectrograms obtained by preprocessing
ave been chosen to evaluate the ultrasound effect. Ultrasound has different impacts on both fibroblast and breast cancer cells. Wh
iomics features were extracted from 143 CT images obtained from the publicly available data set from The Cancer Imaging Archiv
ls. The results showed that the gamma was the most discriminating frequency band. Also, source space data improved the accura
LA samples is 5%, and the swelling ratio is 40 % for 5 weeks. Scanning Electron Microscopy (SEM) was used for the surface exan
urfaces; polished, sandblasted, line and mesh structured surfaces which were processed with laser, were examined from the aspe
udy by Yildiz (2013), but it was reanalyzed by different methods in this thesis. In particular, seven healthy adult subjects participate
ween any 3D image to available CN and AD patient images in the database using the mutual information method. The diagnosis w
nm wavelength is highly absorbed by water molecules, which are abundant in soft tissues such as kidney. Initially, a predosimetry
rectly from the human skin. Instead of a cell line, skin samples were taken from volunteers who had undergone abdominal pannicu
des for digital pathology. Our method is a deep-learning-based approach which uses contrastive learning with spatial attention bloc
sso Regression. After feature selection, 8 radiomic features remained. None of the clinical features were considered important for
and Dextran in different molecular weights were covalently conjugated via Maillard reaction to pro duce shell and used to stabilize
ontrol six vibration motors placed around the upper arm . Motors were recruited incrementally as the avatar's sway angle increased
sists. Optimum microgroove width (7.3 µm) to isolate axons has been obtained by using SU-8 3005 and applying UV exposure for
ded 23 children as participants. In the first experiment, we culled all 18 channels from the dataset; in the second, we narrowed it do
Femoris (RF), Vastus Medialis (VM) and lower body muscles; Peroneus Longus (PL), Soleus (SO), Tibialis Anterior (TA). Algorithm
y remains unchanged in postsurgery, and (v) the pre-surgery psoas lenghtening velocity is slower than post-surgery. 8 limbs of 4
e joint movement is improved (ii), the hip joint movement is deteriorated (iii), the gait deviation index (GDI) is increased (iv), muscle
his purpose, distinct PLGA and PCL nanoparticles (NPs) were fabricated by miniemulsion/solvent evaporation method, followed by
rks in two spatial domains; i) the sensor space and ii) the cortical source space. Second, a spatiotemporal graph convolutional neu
nd Pectin which is a polysaccharide, were synthesized through the Maillard reaction based on reducing sugar and proteins without
t may be one of the reasons for only moderate treatment efficacy of DBS. In our Boğaziçi University Scientific Research Projects (
embranes were done via degradation test, Scanning Electron Microscopy (SEM) and drug release study. For cell study, mouse fibr
plication. Manual preparation of each is an expensive and labor-intensive process that requires complex and difficult methods of u
(NIR) as compared with other types of Gold nanoparticles (GNPs). However, GNRs are limited for the loading amount of PS and t
ependent behavior after discrimination training, in which animals learned to discriminate between existence of the stimulus and a r
assay demonstrated that AuPEI-NPs induced less cytotoxicity than free PEI until the 20 µg/ml concentration in breast cancer cells
SD=0.16). The thresholds measured from the index fingers of CTS affected hands were all higher than the maximum stimulus leve
ctors had a significant impact on the dB difference. An increase in the amplitude of the prior stimulus was found to enhance suppre
to the wrong cluster. We designed a second block that considers the probability of a spike belonging to the second closest cluster
m the core; meanwhile guiding with MNPs makes these structures a multimodal tool. In our first aim, we will synthesize SPIONs wi
size of 29.55cm and 128x128 matrix size. A digital cylindrical phantom filled with water was constructed. A 0.36 cm radius spheric
currence, and easy removal after healing. A bioprinted bone scaffold was designed to improve function, healing, and aesthetics. A
ion Programming Interface (xAPI) calls and stored using a Learning Management System (LMS) and a Learning Record Store (LR

d Median Frequency (MDF) parameters of sEMG measurements assessed between subjects who were able to mai

According to characterization results, Ti surfaces were coated with GO and RGO, as well as the surface hydrophilic

sed. The correlations between the neuropsychological test scores and CBF values were assessed. The CBF values

CASToR software. Quality of reconstructed images was evaluated according to SLN contrast with respect to background. Re

73 ng/mL and for ZOL-GO complexes were 200 µM ZOL - 11.7 ng/mL GO, 50 µM ZOL - 2.91 ng/mL GO, 12.5 µM ZOL - 0.