ÖZGEÇMİŞ

Adı Soyadı : Bora Büyüksaraç
Doğum Tarihi : 03.01.1975
Unvanı : Dr
Öğrenim Durumu : Doktora

Derece	Alan	Üniversite	Yıl
Lisans	Elektrik-Elektronik Mühendisliği	Boğaziçi Üniversitesi	1997
Y. Lisans	Biyomedikal Mühendisliği Enstitüsü	Boğaziçi Üniversitesi	2000
Doktora	Biyomedikal Mühendisliği Enstitüsü	Boğaziçi Üniversitesi	2018

Yayınlar

1. Uluslararası hakemli dergilerde yayınlanan makaleler

B. Buyuksarac, M. Ozkan. "Utilization of MR angiography in perfusion imaging for identifying arterial input function." Magnetic Resonance Materials in Physics, Biology and Medicine, 2017, Vol. 30, Issue 6, p609-620.

B.T. Suer, Z. Yaman, B. Buyuksarac. "Correlation of Fractal Dimension Values with Implant Insertion Torque and Resonance Frequency Values at Implant Recipient Sites." International Journal of Oral & Maxillofacial Implants, 2016, Vol. 31 Issue 1, p55-62.

O. Senkesen, E. Tezcanli, B. Buyuksarac, I. Ozbay. "Comparison of 3D dose distributions for HDR 192Ir brachytherapy sources with normoxic polymer gel dosimetry and treatment planning system." Medical Dosimetry, Volume 39, Issue 3, Autumn 2014, Pages 266–271.

F. Isbakan, Y. Ulgen, H. Bilge, Z. Ozen, O. Agus, B. Buyuksarac. "Gamma Knife 3-D dose distribution near the area of tissue inhomogeneities by normoxic gel dosimetry." Med Phys. 2007 May; 34 (5):1623-30.

2. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında basılan bildiriler

B. Buyuksarac, M. Ozkan. "MR Perfusion and MR Angiographic Image Fusion for the Arterial Input Function Determination." International Journal of Computer Assisted Radiology and Surgery (2010) 5 (Suppl 1): S50–S57.

B. Buyuksarac, M. Ozkan. "Brain Perfusion with MRI: Arterial Input Function Localization with the Support of MR Angiography." International Society for Magnetic Resonance in Medicine, 1-7 May 2010, Stockholm, Sweden.

F. Isbakan, B. Buyuksarac, O. Agus, Y. Ulgen, H. Bilge, Z. Ozen. "Relative dose distribution in gamma knife treatment near tissue inhomogeneties." Conf Proc IEEE Eng Med Biol Soc. 2005; 3:3086-9.

Y. Ulgen, F. Isbakan, H. Bilge, B. Buyuksarac, Z. Ozen, O. Senkesen. "Analysis of Dose Distribution in Gamma Knife Treatment Near Tissue Inhomogeneties Using Gel Dosimetry." Paper presented at BIOMED 2004, 11th International Biomedical Science and Technology Days, 6-10 September 2004, Hacettepe University, Ankara, Turkey.

B. Buyuksarac, M. Ozkan. “Image segmentation in MRI using true T1 and true PD values.” Proceedings of the 23rd Annual International Conference of the IEEE, 2001, Volume: 3, 2661- 2664.

3. Ulusal bilimsel toplantılarda sunulan ve bildiri kitabında basılan bildiriler

B. Buyuksarac, and M. Ozkan. "Evaluation of the effect of arterial input function on cerebral blood flow in MR perfusion imaging." Annual National Biomedical Engineering Meeting (BIYOMUT), 2010, pp. 1-4.

O. Saldogan, B. Buyuksarac, E. Yuksel, A. Tunaci, C. Ozturk. “Renal Perfusion Analysis with MRI” Annual National Biomedical Engineering Meeting (BIYOMUT), 2004, Boğaziçi University, Istanbul.

B. Buyuksarac, M. Ozkan. “Calculation of True T1 and True Proton Density Images Using T1 Weighted MR Images.” SIU2001, IEEE 9th Signal Processing and Communications Applications Conference, 25-27 April 2001, Dogu Akdeniz University, Gazi Magusa, KKTC.

Projeler

2013 – 2017
Brain Perfusion Imaging, Boğaziçi University, Institute of Biomedical Engineering (BME), under the supervision of Professor Mehmed Özkan, Deputy Director of BME (2005-2016) & University Rector (Dec 2016-present)

2011 – 2012
Customized 3D Dental Implant Designing and Rapid Prototyping for Bone Reconstruction, Gülhane Military Medical Academy, Haydarpaşa Training Hospital, R&D Center for Mandibular and Maxillofacial Reconstruction, Istanbul

- CBCT (Cone Beam Computed Tomography) scanning of patients with mandibular/maxillary tumors
- Bone segmentation, volume rendering, 3D printing
- Bone measurements and implant planning

2007– 2010
Fusion of Brain Fiber Tractography and Perfusion in Stereotactic Surgery, Research Project Supported by Boğaziçi University Scientific Research Projects Office, Project Number: 07HX104D

- Worked on cerebral blood flow calculation with brain perfusion images, MR imaging procedures for patients with brain tumors. Collaborated with Istanbul Yeditepe University Hospital, Department of Radiology, Istanbul.
- Developed a software for brain perfusion quantification for cases of stroke and brain tumors

2006 – 2007
Improving Gamma Knife Treatment Planning for Brain Tumors: MR Imaging and Computing Dose Distribution of Gel Phantom, Boğaziçi University BME, in collaboration with Istanbul University Training Hospital, Institute of Radiation Oncology and Marmara University Hospital, Department of Radiation Oncology

2001 – 2005
Cardiac Perfusion with MRI, Boğaziçi University BME, in collaboration with Istanbul University Training Hospital, Department of Radiology

- Performed first-pass cardiac perfusion MRI on patients who suffered myocardial infarction.

1999 – 2000
Brain Image Segmentation in MRI Using True Relaxation Parameters (T1 And Proton Density), Boğaziçi University BME, received Professor Necmi Tanyolaç Best-Student Research Award (2000)

Ödüller

Boğaziçi Üniversitesi Biyomedikal Mühendisliği Enstitüsü kurucusu Prof Dr Necmi Tanyolaç Ödülü (Best student – Research award)