

# Prof. BEHÇET MURAT EYÜBOĞLU

## Personal Information

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## Education Information

Doctorate, University of Sheffield, United Kingdom 1985 - 1989

Post Graduate, Middle East Technical University, Faculty of Engineering, Turkey 1983 - 1985

Under Graduate, Middle East Technical University, Faculty of Engineering, Turkey 1979 - 1983

## Foreign Languages

English, C1 Advanced

## Dissertations

Post Graduate, Neuromuscular junction blockade level monitor, Middle East Technical University, Faculty of Engineering, 1985

Doctorate, DEVELOPMENT and APPLICATION of ELECTRICAL IMPEDANCE TOMOGRAPHY FOR THORACIC IMAGING, University of Sheffield, 1985

## Research Areas

Engineering and Technology

## Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 2001 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, 1998 - 2001

Associate Professor, Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1995 - 1998

Assistant Professor, Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1993 - 1995

## Professional Experience

Fakülte Yönetim Kurulu Üyesi, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2018 - Continues

Vice Dean, Middle East Technical University, Faculty of Engineering, 2012 - 2015

Deputy Head of Department, Middle East Technical University, Faculty of Engineering, 2001 - 2002

## Courses

Analog Elektronik, Under Graduate, 2020 - 2021  
Tıbbi Görüntüleme, Post Graduate, 2019 - 2020  
Semiconductor Devices and Modelling, Under Graduate, 2019 - 2020  
Biyoelektrik ve Biyomanyetik, Post Graduate, 2020 - 2021  
PHYSIOLOGICAL CONTROL SYSTEMS ANALYSIS, Post Graduate, 2018 - 2019  
ENGINEERING DESIGN II, Under Graduate, 2018 - 2019  
INTRODUCTION TO MEDICAL IMAGING, Under Graduate, 2019 - 2020  
Introduction to Biomedical Engineering, Post Graduate, 2018 - 2019  
Engineering Design I , Under Graduate, 2019 - 2020

## Advising Theses

EYÜBOĞLU B. M. , Mobile sleep apnea detection and monitoring based on thermocouple and pulse oximeter sensors, Post Graduate, D.DEMİRKOL(Student), 2018  
EYÜBOĞLU B. M. , Computer-aided diagnosis of Alzheimer's disease and mild cognitive impairment with MARS/CMARS classification using structural MR images, Doctorate, A.ÇEVİK(Student), 2017  
EYÜBOĞLU B. M. , Induced current magnetic resonance electrical impedance tomography (ICMREIT) with low frequency switching of gradient fields, Doctorate, H.HÜSEYİN(Student), 2017  
EYÜBOĞLU B. M. , WEBER G. W. , Computer-aided diagnosis of alzheimer's disease and mild cognitive impairment with MARS/CMARS classification using structural MR images, Doctorate, A.Çevik(Student), 2017  
EYÜBOĞLU B. M. , Magnetic resonance electrical impedance tomography based on MRI-SPAMM, Post Graduate, K.SÜMSER(Student), 2016  
EYÜBOĞLU B. M. , Dual current injection-magnetic resonance electrical impedance tomography using spatial modulation of magnetization, Post Graduate, N.AMEEN(Student), 2016  
EYÜBOĞLU B. M. , A programmable current source for magnetic resonance current density imaging (MRCDI) at 3 Tesla, Post Graduate, C.GÖKSU(Student), 2014  
EYÜBOĞLU B. M. , Magnetic resonance conductivity tensor imaging (MRCTI) at 3 tesla, Post Graduate, M.SADIGHI(Student), 2014  
EYÜBOĞLU B. M. , Design and implementation of a device to control a robotic arm by EMG signal, Post Graduate, G.KANDEMİR(Student), 2013  
EYÜBOĞLU B. M. , Eyüboğlu B., A medical image processing and analysis framework, Post Graduate, A.Çevik(Student), 2011  
EYÜBOĞLU B. M. , Eyüboğlu B., A 3-D vascular connectivity tracking and vascular network extraction toolkit, Post Graduate, K.Kara(Student), 2011  
EYÜBOĞLU B. M. , Magnetic resonance current density imaging using one component of magnetic flux density, Post Graduate, A.Ersöz(Student), 2010  
EYÜBOĞLU B. M. , High resolution imaging of anisotropic conductivity with magnetic resonance electrical impedance tomography (mr-eit), Doctorate, E.Değirmenci(Student), 2010  
EYÜBOĞLU B. M. , A labview interface to integrate magnetic resonance imaging (MRI) simulator with system control and its application to regional magnetic resonance electrical impedance tomography (MREIT) reconstruction, Post Graduate, T.Topal(Student), 2010  
EYÜBOĞLU B. M. , Performance evaluation of current density based magnetic resonance electrical impedance tomography reconstruction algorithms (mr-eit), Post Graduate, R.Boyacıoğlu(Student), 2009  
EYÜBOĞLU B. M. , Analysis of magnetic resonance imaging in inhomogenous main magnetic field, Doctorate, V.Emre(Student), 2009

EYÜBOĞLU B. M. , Performance evaluation of magnetic flux density based magnetic resonance electrical impedance tomography reconstruction algorithms, Post Graduate, G.Eker(Student), 2009

EYÜBOĞLU B. M. , Optimum current injection strategy for magnetic resonance electrical impedance tomography, Doctorate, H.Altunel(Student), 2008

EYÜBOĞLU B. M. , Implementation and comparison of reconstruction algorithms for magnetic resonance-electric impedance tomography (mr-eit), Post Graduate, D.Martin(Student), 2007

EYÜBOĞLU B. M. , An integrated, dynamic model for cardiovascular and pulmonary systems, Post Graduate, N.A(Student), 2006

EYÜBOĞLU B. M. , Permanent magnet design and image reconstruction algorithm for magnetic resonance imaging in inhomogeneous magnetic fields, Post Graduate, H.Yiğitler(Student), 2006

EYÜBOĞLU B. M. , Design and implementation of labview based data acquisition and image reconstruction environment for Metu-mr1 system, Post Graduate, M.Eşref(Student), 2005

EYÜBOĞLU B. M. , Equipotential projection based magnetic resonance electrical impedance tomography (mr-eit) for high resolution conductivity imaging, Post Graduate, M.Sinan(Student), 2003

EYÜBOĞLU B. M. , Eyüboğlu B., Development of reconstruction algorithms for magnetic resonance-electrical impedance tomography and experimental realization, Doctorate, Ö.Birgül(Student), 2002

## **Jury Memberships**

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, November, 2020

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İhsan Doğramacı Bilkent Üniversitesi, July, 2020

Appointment Academic Staff, Appointment Academic Staff, Orta Doğu Teknik Üniversitesi, July, 2020

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İhsan Doğramacı Bilkent Üniversitesi, January, 2020

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, November, 2019

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, May, 2019

Doctoral Examination, Doctoral Examination, Orta Doğu Teknik Üniversitesi, May, 2018

## **Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes**

- I. **Low-frequency conductivity tensor imaging with a single current injection using DT-MREIT**  
Sadighi M., ŞİŞMAN M., Acikgoz B. C. , Eroglu H. H. , EYÜBOĞLU B. M.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.66, no.5, 2021 (Journal Indexed in SCI)
- II. **Magnetohydrodynamic flow imaging of ionic solutions using electrical current injection and MR phase measurements**  
Eroglu H. H. , Sadighi M., EYÜBOĞLU B. M.  
JOURNAL OF MAGNETIC RESONANCE, vol.303, pp.128-137, 2019 (Journal Indexed in SCI)
- III. **Induced Current Magnetic Resonance Electrical Conductivity Imaging With Oscillating Gradients**  
Eroglu H. H. , Sadighi M., EYÜBOĞLU B. M.  
IEEE TRANSACTIONS ON MEDICAL IMAGING, vol.37, no.7, pp.1606-1617, 2018 (Journal Indexed in SCI)
- IV. **Voxel-MARS: a method for early detection of Alzheimer's disease by classification of structural brain MRI**  
Cevik A., Weber G., EYÜBOĞLU B. M. , Oguz K. K.  
ANNALS OF OPERATIONS RESEARCH, vol.258, no.1, pp.31-57, 2017 (Journal Indexed in SCI)
- V. **Analysis of reconstruction performance of magnetic resonance conductivity tensor imaging (MRCTI) using simulated measurements**  
DEĞİRMENCİ E., EYÜBOĞLU B. M.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.25, no.1, pp.474-483, 2017

(Journal Indexed in SCI)

- VI. **Two alternatives for magnetic resonance electrical impedance tomography: injected or induced current**  
Eroglu H. H. , EYÜBOĞLU B. M.  
PHYSIOLOGICAL MEASUREMENT, vol.37, no.11, pp.2024-2049, 2016 (Journal Indexed in SCI)
- VII. **Practical Realization of Magnetic Resonance Conductivity Tensor Imaging (MRCTI)**  
DEĞİRMENCİ E., EYÜBOĞLU B. M.  
IEEE TRANSACTIONS ON MEDICAL IMAGING, vol.32, no.3, pp.601-608, 2013 (Journal Indexed in SCI)
- VIII. **Magnetic resonance current density imaging using one component of magnetic flux density**  
Ersoz A., EYÜBOĞLU B. M.  
INVERSE PROBLEMS IN SCIENCE AND ENGINEERING, vol.21, no.2, pp.184-196, 2013 (Journal Indexed in SCI)
- IX. **Image Reconstruction in Magnetic Resonance Conductivity Tensor Imaging (MRCTI)**  
DEĞİRMENCİ E., EYÜBOĞLU B. M.  
IEEE TRANSACTIONS ON MEDICAL IMAGING, vol.31, no.3, pp.525-532, 2012 (Journal Indexed in SCI)
- X. **Anisotropic conductivity imaging with MREIT using equipotential projection algorithm**  
DEĞİRMENCİ E., EYÜBOĞLU B. M.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.52, no.24, pp.7229-7242, 2007 (Journal Indexed in SCI)
- XI. **Distinguishability for magnetic resonance-electrical impedance tomography (MR-EIT)**  
Altunel H., Eyuboglu B. M. , Koksals A.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.52, no.2, pp.375-387, 2007 (Journal Indexed in SCI)
- XII. **Equipotential projection-based magnetic resonance electrical impedance tomography and experimental realization**  
Ozdemir M., Eyuboglu B., Ozbek O.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.49, no.20, pp.4765-4783, 2004 (Journal Indexed in SCI)
- XIII. **Experimental results for 2D magnetic resonance electrical impedance tomography (MR-EIT) using magnetic flux density in one direction**  
Birgul O., Eyuboglu B., Ider Y.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.48, no.21, pp.3485-3504, 2003 (Journal Indexed in SCI)
- XIV. **Current constrained voltage scaled reconstruction (CCVSR) algorithm for MR-EIT and its performance with different probing current patterns**  
Birgul O., Eyuboglu B., Ider Y.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.48, no.5, pp.653-671, 2003 (Journal Indexed in SCI)
- XV. **A quasi-static analysis for a class of induced-current EIT systems using discrete coils**  
Koksals A., Eyuboglu B., Demirbilek M.  
IEEE TRANSACTIONS ON MEDICAL IMAGING, vol.21, no.6, pp.688-694, 2002 (Journal Indexed in SCI)
- XVI. **Tissue resistivity estimation in the presence of positional and geometrical uncertainties**  
Baysal U., Eyuboglu B.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.45, no.8, pp.2373-2388, 2000 (Journal Indexed in SCI)
- XVII. **Distinguishability analysis of an induced current EIT system using discrete coils**  
Eyuboglu B., Koksals A., Demirbilek M.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.45, no.7, pp.1997-2009, 2000 (Journal Indexed in SCI)
- XVIII. **Use of a priori information in estimating tissue resistivities-application to measured data**  
Baysal U., Eyuboglu B.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.44, no.7, pp.1677-1689, 1999 (Journal Indexed in SCI)
- XIX. **Use of a priori information in estimating tissue resistivities - a simulation study**  
Baysal U., Eyuboglu B.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.43, no.12, pp.3589-3606, 1998 (Journal Indexed in SCI)
- XX. **DETERMINATION OF OPTIMUM INJECTED CURRENT PATTERNS IN ELECTRICAL-IMPEDANCE TOMOGRAPHY**  
KOKSAL A., EYUBOGLU B. M.  
PHYSIOLOGICAL MEASUREMENT, vol.16, 1995 (Journal Indexed in SCI)

- XXI. **APPLICATION OF ELECTRICAL-IMPEDANCE TOMOGRAPHY IN DIAGNOSIS OF EMPHYSEMA - A CLINICAL-STUDY**  
EYUBOĞLU B. M. , ONER A., BAYSAL U., BIBER C., KEYF A., YILMAZ U., ERDOĞAN Y.  
PHYSIOLOGICAL MEASUREMENT, vol.16, 1995 (Journal Indexed in SCI)
- XXII. **ESTIMATION OF TISSUE RESISTIVITIES FROM MULTIPLE-ELECTRODE IMPEDANCE MEASUREMENTS**  
EYUBOĞLU B. M. , PILKINGTON T., WOLF P.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.39, no.1, pp.1-17, 1994 (Journal Indexed in SCI)
- XXIII. **INVIVO IMAGING OF CARDIAC RELATED IMPEDANCE CHANGES**  
EYUBOĞLU B. M. , BROWN B., BARBER D.  
IEEE ENGINEERING IN MEDICINE AND BIOLOGY MAGAZINE, vol.8, no.1, pp.39-45, 1989 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Electrical impedance imaging - injected current**  
EYÜBOĞLU B. M.  
WILEY - Encyclopedia of Biomedical Engineering, pp.1195-1205, 2006 (Refereed Journals of Other Institutions)
- II. **Magnetic resonance current density imaging**  
EYÜBOĞLU B. M.  
Encyclopedia of Biomedical Engineering, pp.2147-2153, 2006 (Refereed Journals of Other Institutions)
- III. **Magnetic resonance - electrical impedance tomography**  
EYÜBOĞLU B. M.  
WILEY - Encyclopedia of Biomedical Engineering, pp.2154-2162, 2006 (Refereed Journals of Other Institutions)
- IV. **Electrical impedance plethysmography**  
EYÜBOĞLU B. M.  
Wiley Encyclopedia of Biomedical Engineering, 2006 (Refereed Journals of Other Institutions)
- V. **Imaging electrical current density using nuclear magnetic resonance**  
EYÜBOĞLU B. M. , REDDY R., LEIGH J. S.  
ELEKTRİK, vol.6, pp.201-214, 1998 (Refereed Journals of Other Institutions)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Single Current Diffusion Tensor Magnetic Resonance Electrical Impedance Tomography: A Simulation Study**  
Sadighi M., Şişman M., Açıkgöz B. C. , Eyüboğlu B. M.  
ISMRM & SMRT Virtual Conference & Exhibition, Sydney, Australia, 8 - 14 August 2020, vol.1, no.1, pp.1-3
- II. **Experimental Realization of Single Current Diffusion Tensor Magnetic Resonance Electrical Impedance Tomography**  
Sadighi M., Şişman M., Açıkgöz B. C. , Eyüboğlu B. M.  
ISMRM & SMRT Virtual Conference & Exhibition, Sydney, Australia, 8 - 14 August 2020, vol.1, no.1, pp.1-3
- III. **Manyetik Rezonans Tabanlı Elektrik Akımı ve İletkenlik Görüntüleme**  
Eyüboğlu B. M.  
TÜRKRAD 2019 Türk Radyoloji Derneği Radyoloji Kongresi, Antalya, Turkey, 6 - 08 November 2019, pp.1
- IV. **Manyetik Rezonans Akım Yoğunluğu Görüntüleme için Darbe Dizisi Gürültü Analizi**  
Açıkgöz B. C. , Sadighi M., Şişman M., Eyüboğlu B. M.  
TÜRKRAD 2019 Türk Radyoloji Derneği Radyoloji Kongresi, Antalya, Turkey, 6 - 08 November 2019, pp.1-7
- V. **Manyetik Rezonans Teknikleri Kullanarak Magnetohidrodinamik Akış Görüntüleme**  
Eroğlu H. H. , Sadighi M., Eyüboğlu B. M.  
TÜRKRAD 2019 Türk Radyoloji Derneği Radyoloji Kongresi, Antalya, Turkey, 6 - 08 November 2019, pp.1-4
- VI. **Eşzamanlı Difüzyon Tensörü ve Manyetik Rezonans Akım Yoğunluğu Görüntüleme**

Sadighi M., Açıkgöz B. C. , Şişman M., Eyüboğlu B. M.

TÜRKRAD 2019 Türk Radyoloji Derneği Radyoloji Kongresi, Antalya, Turkey, 6 - 08 November 2019, pp.1-5

- VII. **Effect of intense utilization of gradients in magnetic resonance current density imaging and its removal**  
SADIGHI M., Eroğlu H. H. , EYÜBOĞLU B. M.  
ISMRM 27th Annual Meeting Exhibition 2019, Montreal, Canada, 11 - 16 May 2019, vol.1, pp.1-4
- VIII. **Magneto-hydrodynamic Flow Imaging Using Spin-Echo Pulse Sequence**  
Eroğlu H. H. , SADIGHI M., EYÜBOĞLU B. M.  
2019 27th Signal Processing and Communications Applications Conference (SIU), Sivas, Turkey, Turkey, 24 - 26 April 2019
- IX. **Imaging anisotropic conductivity with induced current magnetic resonance electrical impedance tomography (ICMREIT)**  
EROĞLU H. H. , SADİGHİ M., EYÜBOĞLU B. M.  
International Conference on Applied Mathematics in Engineering, Balıkesir, Turkey, 27 - 29 June 2018, pp.61
- X. **Low frequency magnetic resonance conductivity imaging by means of oscillating gradient fields**  
Eroğlu H. H. , SADIGHI M., EYÜBOĞLU B. M.  
Int. Society of Magnetic Resonance in Medicine and ESMRM Joint Annual Meeting 2018, Paris, France, 16 - 21 June 2018, vol.26, pp.1-4
- XI. **Diffusion tensor magnetic resonance electrical impedance tomography versus magnetic resonance conductivity tensor imaging**  
Sadighi M., Öktem S. F. , Eyüboğlu B. M.  
International Society of Magnetic Resonance in Medicine ESMRMB Joint Annual Meeting, Paris, France, 16 - 21 June 2018, vol.26, pp.1-4
- XII. **Low frequency magnetic resonance conductivity imaging by means of oscillating gradient fields**  
EROĞLU H. H. , SADİGHİ M., EYÜBOĞLU B. M.  
Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM), Paris, France, 16 - 21 June 2018, vol.26, pp.2287
- XIII. **Front Matter: Volume 10216**  
ÇAKMAK DEMİRKOL D., EYÜBOĞLU B. M.  
SPIE Commercial Scientific Sensing and Imaging, Anaheim, California, United States, United States Of America, 9 - 10 April 2017, vol.10216
- XIV. **SPAMM Based Dual Current Injection to Accelerate Data Acquisition in Magnetic Resonance Electrical Impedance Tomography**  
NAJİ N., SÜMSER K., EYÜBOĞLU B. M.  
ISMRM 25th Annual Meeting Exhibition, Honolulu, HI, USA, 22 - 27 April 2017
- XV. **Portable obstructive sleep apnea detection and mobile monitoring**  
Cakmak D. D. , EYÜBOĞLU B. M.  
Conference on Smart Biomedical and Physiological Sensor Technology XIV, California, United States Of America, 9 - 10 April 2017, vol.10216
- XVI. **MRI SPAMM based magnetic resonance electrical impedance tomography**  
SÜMSER K., Naji N., SADIGHI M., EROĞLU H. H. , EYÜBOĞLU B. M.  
ISMRM 24th Annual Meeting & Exhibition, Singapore, Singapore, 7 - 13 May 2016
- XVII. **Enhancing induced current magnetic resonance electrical impedance tomography ICMREIT image reconstruction**  
NAJİ N., EROĞLU H. H. , SÜMSER K., SADIGHI M., EYÜBOĞLU B. M.  
N. A. Naji, H. H. Eroğlu, K. Sümsler, M. Sadighi, M. Eyüboğlu, "Enhancing induced current magnetic resonance electrical impedance tomography (ICMREIT) image reconstruction" Proc. of the 12th IASTED International Conference Biomedical Engineering (BioMed 2016), Innsbruck, Austria, 2016, pp. 149-154., Innsbruck, Austria, 15 - 17 February 2016, pp.149-154
- XVIII. **Experimental Realization of Induced Current Magnetic Resonance Current Density Imaging**  
Eroglu H. H. , Sadighi M., Sumser K., Naji N., EYÜBOĞLU B. M.

37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Milan, Italy, 25 - 29 August 2015, pp.614-617

- XIX. J-based Magnetic Resonance Conductivity Tensor Imaging (MRCTI) at 3 T**  
Sadighi M., Goksu C., EYÜBOĞLU B. M.  
36th Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society (EMBC), Illinois, United States Of America, 26 - 30 August 2014, pp.1139-1142
- XX. Realization of magnetic resonance current density imaging at 3 Tesla,**  
Göksu C., SADIGHI M., EYÜBOĞLU B. M.  
IEEE Engineering in Medicine and Biology Society (EMBC'14), Chicago, Illinois, U.S.A., 26 - 30 August 2014, pp.1115-1118
- XXI. Induced Current Magnetic Resonance Electrical Impedance Tomography with z-Gradient Coil**  
Eroğlu H. H. , EYÜBOĞLU B. M.  
36TH ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBC), 26 - 30 August 2014
- XXII. COMPARISON OF MAGNETIC RESONANCE ELECTRICAL IMPEDANCE TOMOGRAPHY (MREIT) RECONSTRUCTION ALGORITHMS**  
EYÜBOĞLU B. M. , Arpinar V. E. , Boyacioglu R., Degirmenci E., Eker G.  
7th IEEE International Symposium on Biomedical Imaging: From Nano to Macro, Rotterdam, Netherlands, 14 - 17 April 2010, pp.700-703
- XXIII. Magnetic Resonance Signal Analysis in Inhomogenous Magnetic Fields**  
Arpinar V. E. , EYÜBOĞLU B. M.  
11th International Congress of the IUPESM/World Congress on Medical Physics and Biomedical Engineering, Munich, Germany, 7 - 12 September 2009, vol.25, pp.432-435
- XXIV. Anisotropic Conductivity Imaging with MREIT Using J-substitution and Hybrid J-substitution Algorithms**  
Degirmenci E., EYÜBOĞLU B. M.  
11th International Congress of the IUPESM/World Congress on Medical Physics and Biomedical Engineering, Munich, Germany, 7 - 12 September 2009, vol.25, pp.315-318
- XXV. J-Substitution and Filtered Equipotential-Projection Based Hybrid MREIT Reconstruction Algorithm**  
Boyacioglu R., EYÜBOĞLU B. M.  
11th International Congress of the IUPESM/World Congress on Medical Physics and Biomedical Engineering, Munich, Germany, 7 - 12 September 2009, vol.25, pp.308-311
- XXVI. Regional Image Reconstruction with Optimum Currents for MREIT - Evaluation on Shepp-Logan Conductivity Phantom**  
EYÜBOĞLU B. M. , KÖKSAL A., Altunel H.  
4th European Conference of the International Federation for Medical and Biological Engineering (ECIFMBE), Antwerp, Belgium, 23 - 27 November 2008, vol.22, pp.756-759
- XXVII. Magnetic Resonance Electrical Impedance Tomography For Anisotropic Conductivity Imaging**  
Degirmenci E., EYÜBOĞLU B. M.  
4th European Conference of the International Federation for Medical and Biological Engineering (ECIFMBE), Antwerp, Belgium, 23 - 27 November 2008, vol.22, pp.728-731
- XXVIII. Magnetic Resonance Imaging in Inhomogeneous Magnetic Fields with Noisy Signal**  
Arpinar V. E. , EYÜBOĞLU B. M.  
4th European Conference of the International Federation for Medical and Biological Engineering (ECIFMBE), Antwerp, Belgium, 23 - 27 November 2008, vol.22, pp.410-413
- XXIX. Equipotential projection based MREIT reconstruction without potential measurements**  
EYÜBOĞLU B. M. , DEĞİRMENCİ E.  
13th International Conference on Electrical Bioimpedance/8th Conference on Electrical Impedance Tomography, Graz, Austria, 29 August - 02 September 2007, vol.17, pp.516-517
- XXX. Current injection optimization for magnetic resonance-electrical impedance tomography (MREIT)**  
Altunel H., EYÜBOĞLU B. M. , KÖKSAL A.

- 13th International Conference on Electrical Bioimpedance/8th Conference on Electrical Impedance Tomography, Graz, Austria, 29 August - 02 September 2007, vol.17, pp.504-505
- XXXI. **Anisotropic conductivity imaging with MREIT using equipotential projection algorithm**  
DEĞİRMENCİ E., Eyuboglu B. M.  
13th International Conference on Electrical Bioimpedance/8th Conference on Electrical Impedance Tomography, Graz, Austria, 29 August - 02 September 2007, vol.17, pp.496-497
- XXXII. **Distinguishability for Magnetic Resonance-Electric Impedance Tomography (MR-EIT)**  
Altunel H., EYÜBOĞLU B. M. , KÖKSAL A.  
World Congress on Medical Physics and Biomedical Engineering, Seoul, South Korea, 27 August - 01 September 2006, vol.14, pp.3940-3941
- XXXIII. **Magnetic Resonance - Electrical Impedance Tomography (MR-EIT) Research at METU**  
Eyuboglu B. M.  
World Congress on Medical Physics and Biomedical Engineering, Seoul, South Korea, 27 August - 01 September 2006, vol.14, pp.3932-3935
- XXXIV. **Magnetic resonance-conductivity imaging using 0.15 Tesla MRI scanner**  
Birgul O., Ozbek O., Eyuboglu B., Ider Y.  
23rd Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society, İstanbul, Turkey, 25 - 28 October 2001, vol.23, pp.3384-3387
- XXXV. **Microcontroller controlled, multifrequency electrical impedance tomograph**  
Arpinar V., Eyuboglu B.  
23rd Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society, İstanbul, Turkey, 25 - 28 October 2001, vol.23, pp.2289-2291
- XXXVI. **Imaging electrical current density using 0.15T Magnetic Resonance Imaging system**  
Ozbek O., Birgul O., Eyuboglu B., Ider Y.  
23rd Annual International Conference of the IEEE-Engineering-in-Medicine-and-Biology-Society, İstanbul, Turkey, 25 - 28 October 2001, vol.23, pp.2292-2295
- XXXVII. **Microcontroller Controlled Multifrequency Electrical Impedance tomograph Volume: 23 Pages: 2289-2291 Part: 1-4**  
ARPINAR E., EYÜBOĞLU B. M.  
IEEE/EMBS 23rd Annual Conference 2001, İstanbul, Turkey, 1 - 05 October 2001, vol.23, pp.2289-2291
- XXXVIII. **A dual modality system for high resolution-true conductivity imaging**  
EYÜBOĞLU B. M. , BİRGÜL Ö., İDER Y. Z.  
Proc. XI Int. Conf. Elec. Bioimpedance (ICEBI) (2001), 1 - 04 June 2001, vol.1, pp.409-413
- XXXIX. **New technique for high resolution absolute conductivity imaging using magnetic resonance-electrical impedance tomography (MR-EIT)**  
Birgul O., Eyuboglu B., Ider Y.  
Medical Imaging 2001 Conference, California, United States Of America, 18 - 22 February 2001, vol.4320, pp.880-888
- XL. **Limitations to SV Determination from APT Images pp.442-443, 1989.**  
EYÜBOĞLU B. M. , Brown B. H. , Barber D.  
IEEE/EMBS 11th Annual Conference, Seattle, United States Of America, 1 - 06 November 1989, pp.442-443
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EYÜBOĐLU B. M. , ÇEVİK A., Project Supported by Higher Education Institutions, NÖROLOJİK DEJENERATİF HASTALIKLARIN GÖRÜNTÜ REHBERLİĞİNDE TEDAVİSİ İÇİN TIBBİ ZENGİNLEŞTİRİLMİŞ GERÇEKLIK UYGULAMASI, 2013 - 2013

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EYÜBOĐLU B. M. , GÖKSU C., Project Supported by Higher Education Institutions, MANYETİK REZONANS ELEKTRİKSEL ÖZELLİKLER TOMOGRAFİSİ İÇİN PROGRAMLANABİLİR AKIM KAYNAĞI TASARIMI, 2013 - 2013

EYÜBOĐLU B. M. , KOÇ Ö., Project Supported by Higher Education Institutions, TIBBİ GİRİŞİMSSEL UYGULAMALAR İÇİN NAVİGASYON SİSTEMİ, 2013 - 2013

## Patent

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## Activities in Scientific Journals

EMO Bilimsel Dergi, Editor, 2012 - 2020

Turkish Journal Of Electrical Engineering And Computer Sciences, Editor, 2017 - 2018

## Memberships / Tasks in Scientific Organizations

UMRAM Ulusal Manyetik Rezonans Arařtırma Merkezi, Board Member, 2019 - Continues, Turkey

ISMRRM - International Society of Magnetic Resonance in Medicine, Member, 2016 - Continues, United States Of America

Institute of Physics - Elected Fellow , Principal Member, 2004 - Continues, England

TMMOB - Elektrik Mühendisleri Odası, Member, 1983 - Continues, Turkey

TEYDEB-Çađrı Programı Danıřma Kurulu, Member of Advisory Board, 2020 - 2020, Turkey

Institute of Electrical and Electronics Engineers, Member, 1982 - 2015, United States Of America

## Scientific Refereeing

IEEE TRANSACTIONS ON MEDICAL IMAGING, SCI Journal, March 2020

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, November 2019

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## Scientific Consultations

UMRAM Ulusal Manyetik Rezonans Arařtırma Merkezi , Scientific Consultancy, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, Turkey, 2019 - Continues

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## Edit Congress and Symposium Activities

TÜRKRAD 2019 Türk Radyoloji Derneđi Radyoloji Kongresi, Invited Speaker, Antalya, Turkey, 2019

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Total Citations (WOS):410

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