

Assoc. Prof. MEHMET BERKE GÜR

Personal Information

Office Phone: [+90 216 777 3738](tel:+902167773738)

Email: berke.gur@marmara.edu.tr

Web: <https://avesis.marmara.edu.tr/berke.gur>

Address: Marmara Üniversitesi, Mühendislik Fakültesi Makine Mühendisliği Bölümü Recep Tayyip Erdoğan Külliyesi M5-212
Aydınevler Mah. 34854 Maltepe/ İstanbul Türkiye

International Researcher IDs

ScholarID: n3EW4XwAAAAJ

ORCID: 0000-0002-9391-0905

Publons / Web Of Science ResearcherID: KIG-1920-2024

ScopusID: 18036938000

Yoksis Researcher ID: 122478

Biography

I received my BS degree from Middle East Technical University in 1999, my MS degree from the University of Southern California in 2003, and finally my PhD degree from University of Massachusetts-Lowell in 2009, all in mechanical engineering. During my PhD, I worked as a research assistant for Prof. Christopher Niezrecki in the Structural Dynamics and Acoustic Systems Lab. My PhD thesis was on enhancement of very weak underwater acoustic signals with applications to marine mammals. Before getting my PhD, I studied business administration and received my MBA degree from Boğaziçi University. Between 2009 and 2024, for a duration of 15 years, I served as a faculty member with the Department of Mechatronics Engineering at Bahçeşehir University and led the department as chair for the last five years between 2019 and 2024. Since March 2024, I am a faculty member at Marmara University, Department of Mechanical Engineering.

My work on acoustics at Bahçeşehir University has been mainly focused on particle velocity acoustics, array signal processing, and acoustic inverse problems. I am a Marie Curie fellow and I have served in the local scientific and organizing committees of the European Underwater Acoustics Conference-2010 held in İstanbul. I have actively engaged with the industry and has served as a consultant on several research and development projects by SME's and established defence sector organizations.

At the beginning of my tenure at Bahçeşehir University, I established the robotics program in the Department of Mechatronics Engineering. With the launch of the Stanford-BAU Robotics Lab in 2014, I was appointed as the director of this lab. I spent 6 months at Prof. Oussama Khatib's Robotics Lab at Stanford University in 2014 as a visiting assistant professor. My current research interests are mainly focused on intelligent and autonomous underwater systems and robotics.

Education Information

Doctorate, University of Massachusetts Lowell, Francis College of Engineering, Department of Mechanical Engineering, United States Of America 2004 - 2009

Postgraduate, Bogazici University, Faculty of Economics and Administrative Sciences, Department of Management, Turkey 2000 - 2006

Postgraduate, University of Southern California, Viterbi School of Engineering, Aerospace and Mechanical Engineering

Department, United States Of America 2002 - 2003

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, Turkey
1995 - 1999

Research Areas

System Dynamics and Control, Robotics, Mechatronics, Acoustics and Noise Control, Mechanical Vibrations

Academic Titles / Tasks

Associate Professor, Marmara University, Faculty Of Engineering, Mechanical Engineering, 2024 - Continues

Associate Professor, Bahcesehir University, Faculty of Engineering and Natural Sciences, Department of Mechatronics Engineering, 2019 - 2024

Assistant Professor, Bahcesehir University, Faculty of Engineering and Natural Sciences, Department of Mechatronics Engineering, 2009 - 2019

Research Assistant, University of Florida, Herbert Wertheim College of Engineering, Mechanical and Aerospace Engineering, 2004 - 2004

Instructor, University of Southern California, Viterbi School of Engineering, Aerospace and Mechanical Engineering Department, 2003 - 2004

Academic and Administrative Experience

Head of Department, Bahcesehir University, Faculty of Engineering and Natural Sciences, Department of Mechatronics Engineering, 2019 - 2024

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **The design and kinematic representation of a soft robot in a simulation environment**
Emet H., GÜR M. B., Dede M. İ. C.
Robotica, vol.42, no.1, pp.139-152, 2024 (SCI-Expanded)
- II. **Particle velocity gradient based acoustic mode beamforming for short linear vector sensor arrays**
GÜR M. B.
Journal of the Acoustical Society of America, vol.135, no.6, pp.3463-3473, 2014 (SCI-Expanded)
- III. **A wavelet packet adaptive filtering algorithm for enhancing manatee vocalizations**
GÜR M. B., Niezrecki C.
Journal of the Acoustical Society of America, vol.129, no.4, pp.2059-2067, 2011 (SCI-Expanded)
- IV. **A source separation approach to enhancing marine mammal vocalizations**
GÜR M. B., Niezrecki C.
Journal of the Acoustical Society of America, vol.126, no.6, pp.3062-3070, 2009 (SCI-Expanded)
- V. **Autocorrelation based denoising of manatee vocalizations using the undecimated discrete wavelet transform**
GÜR M. B., Niezrecki C.
Journal of the Acoustical Society of America, vol.122, no.1, pp.188-199, 2007 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **A Touchless Control Interface for Low-Cost ROVs**

Kapicioglu K., Getmez E., Akbulut B. E., Akgul A., Ucar B., Kanlikilic B., Koc M., GÜR M. B.

OCEANS 2021: San Diego - Porto, California, United States Of America, 20 - 23 September 2021, vol.2021-September

- II. **6-Axis Hybrid Sensing and Estimation of Tip Forces/Torques on a Hyper-Redundant Robotic Surgical Instrument**
Yilmaz N., Bazman M., Alassi A., Gur B., TÜMERDEM U.
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Macau, China, 4 - 08 November 2019, pp.2990-2997
- III. **Parameter estimation and control of nonholonomic mobile robots: A model-based approach**
Yoon Y., GÜR M. B.
6th International Conference on Control Engineering and Information Technology, CEIT 2018, İstanbul, Turkey, 25 - 27 October 2018
- IV. **Development and kinematic analysis of a redundant, modular and backdrivable laparoscopic surgery robot**
Alassi A., Yilmaz N., Bazman M., GÜR M. B., TÜMERDEM U.
2018 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM 2018, Auckland, New Zealand, 9 - 12 July 2018, vol.2018-July, pp.213-219
- V. **Modal beamforming for small circular arrays of particle velocity sensors**
GÜR M. B.
25th European Signal Processing Conference, EUSIPCO 2017, Kos, Greece, 28 August - 02 September 2017, vol.2017-January, pp.390-394
- VI. **Modal beamforming for circular acoustic vector sensor arrays Dairesel Akustik Vektör Sensör Dizinleri için Kipsel Hüzme Oluşturucu**
GÜR M. B.
25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017
- VII. **A modal beamformer for circular arrays of 1-dimensional particle velocity sensors**
GÜR M. B.
173rd Meeting of Acoustical Society of America, Acoustics 2017 and 8th Forum Acusticum, Massachusetts, United States Of America, 25 - 29 June 2017, vol.30
- VIII. **Vector sensor array based higher order acoustic sensors Vektör sensör dizinlerine dayali yüksek dereceli akustik algilayicilar**
GÜR M. B.
2014 22nd Signal Processing and Communications Applications Conference, SIU 2014, Trabzon, Turkey, 23 - 25 April 2014, pp.1814-1817
- IX. **Gradient based processing for linear vector sensor arrays**
GÜR M. B.
11th European Conference on Underwater Acoustics 2012, ECUA 2012, Edinburgh, England, 2 - 06 July 2012, vol.34 1, pp.866-872
- X. **Gradient based processing for linear vector sensor**
GÜR M. B.
11th European Conference on Underwater Acoustics, ECUA 2012, Edinburgh, England, 2 - 06 July 2012, vol.17
- XI. **Improvements in modal parameter extraction through post-processing frequency response function estimates**
GÜR M. B., Niezrecki C., Avitabile P.
26th Conference and Exposition on Structural Dynamics 2008, IMAC-XXVI, Orlando, FL, United States Of America, 4 - 07 February 2008
- XII. **Nonlinear median transform domain denoising of frequency response functions**
GÜR M. B., Niezrecki C.
36th International Congress and Exhibition on Noise Control Engineering, INTER-NOISE 2007, İstanbul, Turkey, 28 - 31 August 2007, vol.7, pp.4547-4555
- XIII. **Wavelet domain estimation of frequency response functions**

GÜR M. B.

SEM Annual Conference and Exposition on Experimental and Applied Mechanics 2007, Springfield, MA, United States Of America, 3 - 06 June 2007, vol.1, pp.203-204

XIV. Baseball bat model identification and detection of system changes through in situ experimental modal models developed on the field

Shaw R., GÜR M. B., Avitabile P., Sherwood J.

24th Conference and Exposition on Structural Dynamics 2006, IMAC-XXIV, St Louis, MI, United States Of America, 30 January - 02 February 2006

Supported Projects

Gür M. B., Arda L., Dede M. İ. C., Ayav T., Akal T., TUBITAK Project, Sualtında Manipülasyon için İnsansız Robot Mükkekebalığı Geliştirilmesi ve Tasarımı, 2019 - 2023

Gür M. B., Doğanlı M., Turanlı B., Turanlı M., TUBITAK Project, Depolar İçin Çoklu Robot Sistemi Geliştirilmesi, 2021 - 2022

Gür M. B., Arıca N., Yoon Y., TUBITAK Project, Akıllı Fabrikalar için Otonom Taşıyıcılar ve Gerekli İnsan-Makine ve Makine-Makine Arayüzlerinin Geliştirilmesi, 2017 - 2020

Tümerdem U., GÜR M. B., TUBITAK Project, Minimal İnvazif Cerrahi için Kuvvet Geri Beslemeli Robotik Forseps Tasarımı ve Geliştirilmesi, 2016 - 2018

Gür M. B., Ünay D., Özharar S., TUBITAK Project, Zaman Geri Çevrimi Yöntemi ile Foto Akustik Tıbbi Görüntüleme, 2013 - 2018

Gür M. B., FP7 Project, High Resolution and Robust Time Reversal using Acoustic Vector Sensor Arrays (VecTRA), 2010 - 2015

Gür M. B., Kadıpaşaoğlu A. K., Sezer M. E., Dağdeviren B., Özbaran M., TUBITAK Project, Mekanik Dolaşım Desteği ile Sol Ventrikül-Atardamar Bağlaşık Sistem Veriminin İyileştirilmesi, 2011 - 2013

Gür M. B., Bayram B., Ünay D., Kadıpaşaoğlu A. K., Industrial Thesis Project, Kalbin Dört Boyutlu Modeli ve Hemodinamik Haritalanması, 2010 - 2012

Metrics

Publication: 19

Citation (WoS): 3

Citation (Scopus): 94

H-Index (WoS): 1

H-Index (Scopus): 5