

Assoc. Prof. Zeki Yağız Bayraktaroğlu

Personal Information

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Research Areas

Mechanical Engineering, Machine Theory and Dynamics, System Dynamics and Control, Robotics, Mechatronics, Modeling and Simulation of Dynamic Systems, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Istanbul Technical University, Makina, Makina Mühendisliği, 2014 - Continues

Associate Professor, Ecole Nationale D'ingénieurs De Metz, 2014 - 2014

Assistant Professor, Istanbul Technical University, Makina, Makina Mühendisliği, 2004 - 2013

Assistant Professor, Université De Versailles Saint-Quentin-En-Yvelines, 2005 - 2005

Research Assistant PhD, Istanbul Technical University, Makina, Makina Mühendisliği, 2002 - 2004

Research Assistant, Université De Versailles Saint-Quentin-En-Yvelines, Laboratoire De Robotique De Paris, 1998 - 2002

Professional Experience

Courses

Digital Control System Design, Under Graduate, 2014 - 2015, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020, 2020 - 2021

Modern Control Engineering, Post Graduate, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020, 2020 - 2021

Kontrol Sistemleri Tasarımı, Under Graduate, 2018 - 2019, 2019 - 2020, 2020 - 2021

Introduction to Robotics, Under Graduate, 2014 - 2015, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020, 2020 - 2021

System Dynamics & Control, Under Graduate, 2015 - 2016, 2017 - 2018

Sistem Dinamiği ve Kontrol, Under Graduate, 2018 - 2019

Modern Control Engineering, Post Graduate, 2004 - 2005, 2005 - 2006, 2006 - 2007, 2007 - 2008, 2008 - 2009, 2009 - 2010, 2010 - 2011, 2011 - 2012, 2012 - 2013, 2013 - 2014, 2014 - 2015, 2015 - 2016

Dynamic Systems Modeling & Simulation, Post Graduate, 2016 - 2017

Dynamic Systems Modeling & Simulation, Post Graduate, 2015 - 2016

Nonlinear Analysis & Control Methods, Doctorate, 2004 - 2005, 2005 - 2006, 2006 - 2007, 2007 - 2008, 2008 - 2009, 2009 - 2010, 2010 - 2011, 2011 - 2012, 2015 - 2016

Experimental Robot Modeling & Control, Doctorate, 2013 - 2014, 2014 - 2015

Digital Control System Design, Under Graduate, 2005 - 2006, 2006 - 2007, 2007 - 2008, 2008 - 2009, 2009 - 2010, 2010 - 2011, 2011 - 2012, 2012 - 2013, 2013 - 2014

Introduction to Robotics, Under Graduate, 2008 - 2009, 2009 - 2010, 2010 - 2011, 2011 - 2012, 2012 - 2013, 2013 -

2014

System Dynamics & Control, Under Graduate, 2011 - 2012, 2012 - 2013

Dynamical System Modeling & Simulation, Under Graduate, 2004 - 2005, 2005 - 2006, 2006 - 2007, 2007 - 2008

Jury Memberships

Doctorate, Doctorate, İstanbul Teknik Üniversitesi, November, 2020

Doctoral Examination, Doctoral Examination, İstanbul Teknik Üniversitesi, December, 2019

Competition, Necdet Eraslan Proje Yarışması, MMO, December, 2017

Post Graduate, Contour Tracking with a Direct Drive Robot, Sabancı Üniversitesi, August, 2016

Doctorate, Çimento Öğütme Prosesinin Modellenmesi ve Kontrol Sisteminin Geliştirilme, İstanbul Teknik Üniversitesi, January, 2016

Doctorate, Robotique nomade pour la restauration des écosystèmes dégradés, Université de Versailles Saint Quentin-en-Yvelines, September, 2015

Doctorate, Multi Objective Optimization of Structures Under Multiple Loads Using Singular Value Decomposition, İstanbul Teknik Üniversitesi, July, 2014

Post Graduate, Modeling, Simulation and Design of a Bipedal Walking Robot, Yeditepe Üniversitesi, December, 2009

Designed Lessons

Bayraktaroğlu Z. Y. , Experimental Robot Modeling & Control, Doctorate, 2013 - 2014

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

- I. **Consistent dynamic model identification of the Stäubli RX-160 industrial robot using convex optimization method**
Argın Ö. F. , Bayraktaroğlu Z. Y.
Journal of Mechanical Science and Technology, 2021 (Journal Indexed in SCI Expanded)
- II. **Design and control of a cable-driven rehabilitation robot for upper and lower limbs**
Oyman E. L. , Korkut M. Y. , Yılmaz C., Bayraktaroğlu Z. Y. , ARSLAN M. S.
Robotica, 2021 (Journal Indexed in SCI Expanded)
- III. **A modular bilateral haptic control framework for teleoperation of robots**
Bayraktaroglu Z. Y. , Argın Ö. F. , HALIYO S.
ROBOTICA, vol.37, no.2, pp.338-357, 2019 (Journal Indexed in SCI)
- IV. **Modeling and control of a spherical rolling robot: a decoupled dynamics approach**
KAYACAN E., Bayraktaroglu Z. Y. , SAEYS W.
ROBOTICA, vol.30, pp.671-680, 2012 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Design and Development of the I.T.U. Biped Robot**
Bayraktaroglu Z. Y. , Acar M., Gerçek A., TAN N. M.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.31, no.1, pp.251-271, 2018 (Journal Indexed in ESCI)

Books & Book Chapters

- I. **Robot Teknolojisine Giriş: Matematiksel Modelleme**

BAYRAKTAROĞLU Z. Y.

Nobel Akademik Yayıncılık, Ankara, 2018

Supported Projects

Bayraktaroğlu Z. Y. , Project Supported by Higher Education Institutions, Doğa'dan Esinlenen Tekerleksiz Yılanı Bir Robotun Tasarımı ve Kontrolü, 2006 - 2018

Bayraktaroğlu Z. Y. , TUBITAK Project, İki Ayaklı Yürüyen Robot Tasarımı, Prototip İmalatı ve Kontrolü, 2007 - 2011

Bayraktaroğlu Z. Y. , Project Supported by Higher Education Institutions, İki Ayaklı Yürüme Hareketinin Modellenmesi ve Benzetimi, 2006 - 2007

Bayraktaroğlu Z. Y. , TUBITAK Project, Yılan Tipi Tekerleksiz Hareketli Bir Robotun Tasarlanması ve İlk Prototip Çalışması, 2004 - 2006

Bayraktaroğlu Z. Y. , Other Supported Projects, Design And Construction Of A Wheel-less Snake-like Robot Prototype, 2004 - 2006

Memberships / Tasks in Scientific Organizations

TC Robotics, Member, 2014 - Continues

Otomatik Kontrol Türk Milli Komitesi, Member, 2008 - Continues

Scientific Refereeing

IEEE-Asme Transactions On Mechatronics, Journal Indexed in SCI-E, March 2020

IEEE-ASME TRANSACTIONS ON MECHATRONICS, Journal Indexed in SCI-E, February 2020

IEEE-ASME TRANSACTIONS ON MECHATRONICS, Journal Indexed in SCI-E, January 2020

IEEE TRANSACTIONS ON ROBOTICS, Journal Indexed in SCI-E, August 2019

BIOINSPIRATION & BIOMIMETICS, Journal Indexed in SCI-E, June 2019

IEEE TRANSACTIONS ON ROBOTICS, SCI Journal, May 2019

IEEE-ASME TRANSACTIONS ON MECHATRONICS, Journal Indexed in SCI-E, April 2019

TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, Journal Indexed in SCI-E, April 2019

Measurement and Control, SCI Journal, March 2019

IEEE/ASME Transactions on Mechatronics, SCI Journal, February 2019

IEEE/ASME Transactions on Mechatronics, SCI Journal, February 2019

Transactions of the Institute of Measurement and Control, SCI Journal, February 2019

Robotica, SCI Journal, February 2019

IEEE Transactions on Robotics, SCI Journal, January 2019

Measurement and Control, SCI Journal, January 2019

IEEE Transactions on Control Systems Technology, SCI Journal, January 2019

Transactions of the Institute of Measurement and Control, SCI Journal, November 2018

IEEE/ASME Transactions on Mechatronics, SCI Journal, October 2018

IEEE/ASME Transactions on Mechatronics, SCI Journal, October 2018

Journal of Mechanical Science and Technology, SCI Journal, June 2018

IEEE/ASME Transactions on Mechatronics, SCI Journal, May 2018

IEEE/ASME Transactions on Mechatronics, SCI Journal, April 2018

IEEE/ASME Transactions on Mechatronics, SCI Journal, April 2018

IEEE/ASME Transactions on Mechatronics, SCI Journal, April 2018

Journal of Mechanical Science and Technology, SCI Journal, April 2018

Journal of Vibration and Control, SCI Journal, March 2018

IEEE/ASME Transactions on Mechatronics, SCI Journal, February 2018
Robotica, SCI Journal, January 2018
IEEE/ASME Transactions on Mechatronics, SCI Journal, January 2018
Journal of Mechanical Science and Technology, SCI Journal, January 2018
IEEE Transactions on Control Systems Technology, SCI Journal, November 2017
Robotica, SCI Journal, November 2017
Robotica, SCI Journal, August 2017
Journal of Mechanical Science and Technology, SCI Journal, August 2017
IEEE/ASME Transactions on Mechatronics, SCI Journal, August 2017
IEEE/ASME Transactions on Mechatronics, SCI Journal, July 2017
Journal of Mechanical Science and Technology, SCI Journal, June 2017
IEEE/ASME Transactions on Mechatronics, SCI Journal, May 2017
Journal of Mechanical Science and Technology, SCI Journal, May 2017
Journal of Mechanical Science and Technology, SCI Journal, April 2017
IEEE/ASME Transactions on Mechatronics, SCI Journal, April 2017
Journal of Mechanical Science and Technology, SCI Journal, March 2017
IEEE/ASME Transactions on Mechatronics, SCI Journal, March 2017
Journal of Mechanical Science and Technology, SCI Journal, January 2017
IEEE/ASME Transactions on Mechatronics, SCI Journal, December 2016
IEEE/ASME Transactions on Mechatronics, SCI Journal, November 2016
Journal of Mechanical Science and Technology, SCI Journal, October 2016
Robotica, SCI Journal, August 2016
IEEE/ASME Transactions on Mechatronics, SCI Journal, June 2016
IEEE/ASME Transactions on Mechatronics, SCI Journal, March 2016
Robotica, SCI Journal, December 2015
IEEE/ASME Transactions on Mechatronics, SCI Journal, December 2015
IEEE/ASME Transactions on Mechatronics, SCI Journal, November 2015
IEEE/ASME Transactions on Mechatronics, SCI Journal, March 2015
IEEE/ASME Transactions on Mechatronics, SCI Journal, November 2014
IEEE/ASME Transactions on Mechatronics, SCI Journal, August 2014
Robotica, SCI Journal, June 2014
Computers and Electronics in Agriculture, SCI Journal, April 2014
IEEE/ASME Transactions on Mechatronics, SCI Journal, March 2014
Journal of Mechanical Engineering Science , SCI Journal, December 2013
Journal of Mechanical Engineering Science, SCI Journal, November 2013
IEEE Transactions on Robotics, SCI Journal, November 2013
Advanced Robotics, SCI Journal, July 2013
Journal of Intelligent and Robotic Systems, SCI Journal, July 2013
Journal of Engineering Manufacture, SCI Journal, May 2013
Journal of Engineering Manufacture, SCI Journal, March 2013
Robotica, SCI Journal, November 2012
Smart Materials and Structures, SCI Journal, October 2012
Bioinspiration & Biomimetics, SCI Journal, October 2012
Bioinspiration & Biomimetics, SCI Journal, September 2012
Journal of Mechanical Science and Technology, SCI Journal, September 2011
Journal of Mechanical Science and Technology, SCI Journal, August 2011
Robotica, SCI Journal, March 2011
Advanced Robotics, SCI Journal, February 2011
Turkish Journal of Electrical Engineering & Computer Sciences, SCI Journal, November 2010
IEEE Transactions on Control Systems Technology, SCI Journal, November 2010
Journal of Intelligent and Robotic Systems, SCI Journal, October 2010

Bioinspiration & Biomimetics, SCI Journal, September 2010
Journal of Robotics, SCI Journal, February 2010
Simulation Modelling Practice and Theory , SCI Journal, January 2010
Turkish Journal of Electrical & Computer Sciences, SCI Journal, July 2009
Advanced Robotics, SCI Journal, November 2008
Advanced Robotics, SCI Journal, October 2008
IEEE Transactions on Automation Science and Engineering, SCI Journal, September 2008
Advanced Robotics, SCI Journal, August 2008
Bioinspiration & Biomimetics, SCI Journal, August 2008
IEEE Transactions on Robotics, SCI Journal, July 2008
Advanced Robotics, SCI Journal, October 2007
IEEE Transactions on Robotics, SCI Journal, July 2007
Bioinspiration & Biomimetics, SCI Journal, June 2007
IEEE Transactions on Robotics, SCI Journal, February 2007

Scientific Consultations

Işık Üniversitesi, Other, Istanbul Technical University, Makina, Makina Mühendisliği, Turkey, 2019 - Continues
İTÜNOVA Teknoloji A.Ş. / Altınay Robot Teknolojileri San. ve Tic. A.Ş., Project Consultancy, Istanbul Technical University, Makina, Makina Mühendisliği, Turkey, 2019 - 2020
İTÜNOVA Teknoloji A.Ş / Tekhnelogos, Project Consultancy, Istanbul Technical University, Makina, Makina Mühendisliği, Turkey, 2017 - 2017
İTÜNOVA Teknoloji A.Ş / BCS TEKNOLOJİ, Project Consultancy, Istanbul Technical University, Makina, Makina Mühendisliği, Turkey, 2015 - 2015

Tasks In Event Organizations

Bayraktaroğlu Z. Y. , Türkiye Robotbilim Konferansı, Scientific Congress, İstanbul, Turkey, Haziran 2019
Bayraktaroğlu Z. Y. , IEEE International Conference on Robotics and Biomimetics, Scientific Congress, Kuala-Lumpur, Malaysia, Aralık 2018
Bayraktaroğlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, Kayseri, Turkey, Eylül 2018
Bayraktaroğlu Z. Y. , Türkiye Robotbilim Konferansı, Scientific Congress, İstanbul, Turkey, Nisan 2018
Bayraktaroğlu Z. Y. , IEEE International Conference on Robotics and Biomimetics, Scientific Congress, Macau, China, Aralık 2017
Bayraktaroğlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, İstanbul, Turkey, Eylül 2017
Bayraktaroğlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, Eskişehir, Turkey, Ekim 2016
Bayraktaroğlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, Denizli, Turkey, Eylül 2015
Bayraktaroğlu Z. Y. , IEEE International Conference on Robotics and Biomimetics, Scientific Congress, Balikpapan, Indonesia, Aralık 2014
Bayraktaroğlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, Kocaeli, Turkey, Eylül 2014
Bayraktaroğlu Z. Y. , IEEE International Conference on Robotics and Biomimetics, Scientific Congress, Shenzhen, China, Aralık 2013
Bayraktaroğlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, Malatya, Turkey, Eylül 2013

Bayraktarođlu Z. Y. , IEEE International Conference on Robotics and Biomimetics, Scientific Congress, Guangzhou, China, Aralık 2012
Bayraktarođlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, Niđde, Turkey, Ekim 2012
Bayraktarođlu Z. Y. , IEEE International Conference on Robotics and Biomimetics, Scientific Congress, Phuket, Thailand, Aralık 2011
Bayraktarođlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, İzmir, Turkey, Eylül 2011
Bayraktarođlu Z. Y. , IEEE International Conference on Mechatronics, Scientific Congress, İstanbul, Turkey, Nisan 2011
Bayraktarođlu Z. Y. , IEEE International Conference on Robotics and Biomimetics, Scientific Congress, Tianjin, China, Aralık 2010
Bayraktarođlu Z. Y. , Otomatik Kontrol Türk Milli Komitesi Ulusal Toplantısı, Scientific Congress, İstanbul, Turkey, Kasım 2008

Mobility Activity

Other, Guest Researcher, Ecole Nationale d'Ingénieurs de Metz, France, 2014 - 2014
Other, Guest Researcher, Université de Versailles Saint-Quentin-en-Yvelines, France, 2005 - 2005

Edit Congress and Symposium Activities

33rd IAESTED International Conference on Modelling, Identification and Control, Attendee, Innsbruck, Austria, 2014
Otomatik Kontrol Türk Milli Komitesi - Otomatik Kontrol Ulusal Toplantısı, Attendee, Malatya, Turkey, 2013
IEEE International Conference on Mechatronics, Attendee, İstanbul, Turkey, 2011
Robocup, Attendee, Singapore, Singapore, 2010
International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics, Attendee, Târgu-Mures, Romania, 2010
Otomatik Kontrol Türk Milli Komitesi - Otomatik Kontrol Ulusal Toplantısı, Attendee, Malatya, Turkey, 2009
16. Ulusal Mekanik Kongresi, Attendee, Kayseri, Turkey, 2009
Otomatik Kontrol Türk Milli Komitesi - Otomatik Kontrol Ulusal Toplantısı, Attendee, İstanbul, Turkey, 2008
Otomatik Kontrol Türk Milli Komitesi - Otomatik Kontrol Ulusal Toplantısı, Attendee, İstanbul, Turkey, 2007
International Conference on Biomedical Robotics and Biomechatronics (BIOROB), Attendee, Italy, 2006
Otomatik Kontrol Türk Milli Komitesi - Otomatik Kontrol Ulusal Toplantısı, Attendee, İstanbul, Turkey, 2005
IEEE/RSJ International Conference on Intelligent RObots and Systems, Attendee, Kyeongju, South Korea, 1999
International Workshop on RObot and huMAN Interaction, Attendee, Italy, 1999
International Advanced Robotics Program - Workshop on Biologically Motivated Service Robotics, Attendee, Germany, 1999
Les 11èmes Journées Jeunes Chercheurs en Robotique, Attendee, Lausanne, Switzerland, 1999

Citations

Total Citations (WOS):145
h-index (WOS):4

Scholarships

Yurtdışı Doktora Bursu, YOK, 1998 - 2002