

Asst. Prof. MEHMET İLTERİŞ SARIGEÇİLİ

Personal Information

Office Phone: [+90 322 338 6084](tel:+903223386084) Extension: 2722

Office Phone: [+90 322 338 6084](tel:+903223386084) Extension: 2724

Fax Phone: [+90 322 338 6126](tel:+903223386126)

Email: msarigecili@cu.edu.tr

Web: <https://avesis.cu.edu.tr//msarigecili>

Address: Çukurova Üniversitesi Mühendislik Fakültesi Makina Müh. Bölümü Sarıçam/Adana

International Researcher IDs

ScholarID: msarigecili

ORCID: 0000-0002-9969-2005

Publons / Web Of Science ResearcherID: G-4004-2018

Yoksis Researcher ID: 196246

Education Information

Doctorate, Syracuse University, L.C. Smith College Of Engineering, Mechanical & Aerospace Engineering Dept., United States Of America 2006 - 2012

Postgraduate, Cukurova University, Fen Bilimleri Enstitüsü, Makine Mühendisliği Bölümü, Turkey 2001 - 2004

Undergraduate, Cukurova University, Mühendislik Mimarlık Fakültesi, Makine Mühendisliği Bölümü, Turkey 1997 - 2001

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Enriching STEP-Based Product Information Models to Support Product Life-Cycle Activities, Syracuse University, L.C. Smith College Of Engineering, Mechanical & Aerospace Engineering Department, 2012

Postgraduate, Modeling of Waterjet Intensifier and Materials Selection for Optimum Wall Thicknesses, Cukurova University, Fen Bilimleri Enstitüsü, Makine Mühendisliği Bölümü, 2004

Research Areas

Mechanical Engineering, Machine Theory and Dynamics, Robotics, Mechatronics, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2018 - Continues

Researcher, Syracuse University, L.C. Smith College Of Engineering, Mechanical & Aerospace Engineering, 2022 - 2023

Assistant Professor, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2013 - 2018

Research Assistant, Syracuse University, L.C. Smith College Of Engineering, Mechanical & Aerospace Engineering, 2006 -

2012

Research Assistant, Lehigh University, P.C. Rossin College Of Engineering And Applied Science , Mechanical Engineering And Mechanics, 2005 - 2006

Academic and Administrative Experience

Fakülte Yönetim Kurulu Üyesi, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2014 - 2022

Deputy Head of Department, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2013 - 2022

Erasmus Program Institutional Coordinator, Cukurova University, Mühendislik Fakültesi, Makina Müh., 2013 - 2022

Courses

Engineering Mechanics I (Statics), Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

Engineering Mechanics I (Statics), Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

Automatic Control, Undergraduate, 2020 - 2021, 2019 - 2020

Automatic Control, Undergraduate, 2020 - 2021, 2019 - 2020

Synthesis of Mechanisms, Postgraduate, 2020 - 2021

Advanced Kinematics, Postgraduate, 2020 - 2021

Engineering Mechanics II (Dynamics) , Undergraduate, 2020 - 2021, 2019 - 2020

Engineering Mechanics II (Dynamics) , Undergraduate, 2020 - 2021, 2019 - 2020

Statistics and Quality Control , Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Analytical Methods in Engineering, Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Statistics and Quality Control, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Introduction to Product Lifecycle Management, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Introduction to Product Lifecycle Management, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2013 - 2014

Dynamics of Machinery, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Principles Of Mechanical Engineering I , Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Dynamics of Machinery, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Principles Of Mechanical Engineering I , Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Mechanisms, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Mechanisms, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Strength of Materials, Undergraduate, 2014 - 2015, 2013 - 2014

Measurement of Geometric Tolerances in Manufacturing, Undergraduate, 2014 - 2015, 2013 - 2014

Engineering Drawing, Undergraduate, 2013 - 2014

Engineering Drawing, Undergraduate, 2013 - 2014

Measurement of Geometric Tolerances in Manufacturing, Undergraduate, 2014 - 2015, 2013 - 2014

Machine Elements, Undergraduate, 2014 - 2015, 2013 - 2014

Malzeme Bilimi, Undergraduate, 2013 - 2014

Advising Theses

Sarigeçili M. İ., Özbek N. S., Implementation of adaptive interaction torque control on modified wrist rehabilitation robot (CWRR) under internal and external disturbance effects, Doctorate, M.DAĞDELEN(Student), 2024

Sarigeçili M. İ., CONCEPTUAL DESIGN OF ANKLE REHABILITATION ROBOT FOR CEREBRAL PALSY PATIENTS, Postgraduate, M.ÜNÜLÜ(Student), 2022

Sarigeçili M. İ., DESIGN BASED ON DYNAMIC ANALYSIS OF BOOM-STICK GROUP IN BACKHOE LOADERS, Postgraduate, M.LÜYE(Student), 2022

Sarigeçili M. İ., FINITE ELEMENT ANALYSIS AND TOPOLOGY OPTIMIZATION OF SHOCK ABSORBER YOKE ALONG WITH VISUALIZATION OF RESULTS IN AUGMENTED REALITY, Postgraduate, H.DOĞRUSÖZ(Student), 2022

Sarigeçili M. İ., Development of a conceptual model for wrist and forearm rehabilitation robot with two degrees of freedom, Postgraduate, M.DAĞDELEN(Student), 2017

, Sarigeçili M. İ., Çelebi K., Development of a body weight supported lower gait robotic training system, Postgraduate, H.EMRE(Student), 2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A cascade fuzzy adaptive based interaction torque control of a pneumatically actuated forearm rehabilitation robot under disturbance effects**
Dağdelen M., Sarigeçili M. İ., Özbek N. S.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS, PART C: JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.238, no.10, pp.4679-4701, 2023 (SCI-Expanded)
- II. **Automation of friction torque identification for vane-type semi-rotary pneumatic actuators**
Dagdelen M., Sarigeçili M.
JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, vol.45, no.6, pp.1-17, 2023 (SCI-Expanded)
- III. **Friction force estimation in pneumatic cylinders by full automation of experimental procedures**
Dağdelen M., Sarigeçili M. İ.
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.45, no.5, pp.986-997, 2023 (SCI-Expanded)
- IV. **A new compressible flow model for pneumatic directional control valves**
Dağdelen M., Sarigeçili M. İ., Ozbek N. S.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, vol.237, no.2, pp.179-195, 2023 (SCI-Expanded)
- V. **Development of constant output-input force ratio in slider-crank mechanisms**
SARIGEÇİLİ M. İ., AKÇALI İ. D.
Inverse Problems in Science and Engineering, vol.27, no.5, pp.565-588, 2019 (SCI-Expanded)
- VI. **Enriching STEP Product Model With Geometric Dimension and Tolerance Information for One-Dimensional Tolerance Analysis**
SARIGEÇİLİ M. İ., Roy U., RACHURI S.
JOURNAL OF COMPUTING AND INFORMATION SCIENCE IN ENGINEERING, vol.17, no.2, 2017 (SCI-Expanded)
- VII. **Information Models for Processing Product Lifecycle Functionalities and Interfaces for Sustainable Manufacturing**
Roy U., Sarigeçili M. İ.
JOURNAL OF COMPUTING AND INFORMATION SCIENCE IN ENGINEERING, vol.16, no.1, 2016 (SCI-Expanded)
- VIII. **Interpreting the semantics of GD&T specifications of a product for tolerance analysis**
Sarigeçili M. İ., Roy U., Rachuri S.
COMPUTER-AIDED DESIGN, vol.47, pp.72-84, 2014 (SCI-Expanded)
- IX. **Disassembly information model incorporating dynamic capabilities for disassembly sequence generation**
Zhu B., Sarigeçili M. İ., Roy U.
ROBOTICS AND COMPUTER-INTEGRATED MANUFACTURING, vol.29, no.5, pp.396-409, 2013 (SCI-Expanded)

Articles Published in Other Journals

- I. **Modified Hooke-Jeeves optimization of operating parameters for required slider speeds and displacements in a feeder slider-crank mechanism**
SARIGEÇİLİ M. İ., AKÇALI İ. D.
ARCHIVE OF MECHANICAL ENGINEERING, vol.70, no.1, pp.63-83, 2023 (ESCI)
- II. **Noise and Disturbance Rejection Performance Evaluation on Explicit Model Predictive Control Technique Applied to Inverted Pendulum with Various Test Scenarios**
Özgür H. E., Özbek N. S., Sarigeçili M. İ.
Çukurova Üniversitesi Mühendislik Fakültesi dergisi, vol.37, no.3, pp.643-651, 2022 (Peer-Reviewed Journal)
- III. **An Experimental Method for Estimating Combined Friction Torque in Vane Type Pneumatic Semi Rotary Actuators**
Dağdelen M., Sarigeçili M. İ.
SAKARYA UNIVERSITY JOURNAL OF SCIENCE, vol.24, no.6, pp.1272-1283, 2020 (Peer-Reviewed Journal)
- IV. **ESTIMATION OF THE FRICTION PARAMETERS OF LINEAR PNEUMATIC CYLINDERS**
Dağdelen M., Sarigeçili M. İ.
Mühendislik ve Tasarım Bilimleri Dergisi, vol.8, no.2, pp.397-406, 2020 (Peer-Reviewed Journal)
- V. **Development of a Test Apparatus for Estimation of Friction Parameters at Linear Pneumatic Cylinders**
DAĞDELEN M., SARIGEÇİLİ M. İ.
Çukurova Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.34, no.3, pp.131-141, 2019 (Peer-Reviewed Journal)
- VI. **Dynamic Modeling of Slider-Crank Mechanism for Selecting Input Parameters for Desired Piston Speeds: Lumped Mass Approach**
SARIGEÇİLİ M. İ., AKÇALI İ. D.
Çukurova Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.33, no.4, pp.67-82, 2018 (Peer-Reviewed Journal)
- VII. **Krank Biyel Mekanizmasında Açık Kuvvet Kontrolü**
SARIGEÇİLİ M. İ., AKÇALI İ. D.
Mühendis ve Makina, vol.57, no.675, pp.20-29, 2016 (Peer-Reviewed Journal)
- VIII. **Development of the integrated product information model for product sustainability assessment**
Roy U., Baysal M. M., Sarigeçili M. İ., Shuaib M., Badurdeen F., Jawahir I.
International Journal of Sustainable Manufacturing, vol.3, no.2, pp.156-169, 2014 (Scopus)
- IX. **A disassembly process model for end-of-life activities of manufactured products**
Sarigeçili M. İ., Baysal M. M., Zhu B., Roy U.
International Journal of Sustainable Manufacturing, vol.3, no.1, pp.37-56, 2013 (Scopus)
- X. **Development of functionality-based conformance classes for ISO 10303 - conformance classes for tolerancing functionality**
Sarigeçili M. İ., Roy U., Rachuri S., Sriram R. D.
Computer-Aided Design and Applications, vol.6, no.2, pp.167-179, 2009 (Scopus)
- XI. **3000 bar Çalışma Basıncılı Çift Etkili Basınç Yükseltici Tasarımı ve İmalatı**
GEREN N., BAYRAMOĞLU M., Ayseven A., SARIGEÇİLİ M. İ.
Ç. Ü. Müh. Mimarlık Fakültesi Dergisi, pp.49-53, 2003 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **ANALYSIS OF A SHOCK ABSORBER YOKE USING FINITE ELEMENT METHOD AND VISUALIZATION OF THE RESULTS USING AUGMENTED REALITY**
Doğrusöz H., Sarigeçili M. İ.
2. INTERNATIONAL MEDITERRANEAN SCIENTIFIC RESEARCH AND INNOVATION CONGRESS, Girne, Cyprus (Kktc),

30 - 31 July 2022, pp.582-594

- II. **Conceptual Design of Ankle Rehabilitation Robot for Cerebral Palsy Patients**
Ünlü M., Sarıgeçili M. İ.
4. International Palandoken Scientific Studies Congress, Erzurum, Turkey, 28 - 29 April 2022, pp.838-848
- III. **Interaction Torque Control of Pneumatically Actuated Wrist/Forearm Rehabilitation Robot**
Dağdelen M., Sarıgeçili M. İ., Özbek N. S.
II. International Antalya Scientific Research and Innovative Studies Congress, Antalya, Turkey, 17 - 21 March 2022, pp.546-555
- IV. **Assessment of LQR and Explicit MPC Methods for an Inverted Pendulum on a Cart System**
Özgür H. E., Özbek N. S., Sarıgeçili M. İ.
MAS 16th International, European Conference On Mathematics, Engineering, Natural & Medical Sciences, Mardin, Turkey, 22 - 23 February 2022, pp.225-234
- V. **Structural Investigation of Backhoe Design of Backhoe Loader with Finite Element Method Based Dynamic Analysis**
Lüye M., Sarıgeçili M. İ., Pesen E.
VII. International Battalgazi Scientific Studies Congress, Malatya, Turkey, 28 - 29 January 2022, pp.532-543
- VI. **Conceptual Design of An Axial Fatigue Loading Machine**
Sarıgeçili M. İ., Dağdelen M., Akçalı İ. D.
3rd International 5 Ocak Congress on Applied Sciences, Adana, Turkey, 4 - 05 January 2022, pp.216-221
- VII. **Evaluation of Cracking Pressure Ratio at Proportional Directional Control Valves for Different Valve Control Signals and Supply Pressures**
Dağdelen M., Sarıgeçili M. İ.
III. International Turkic World Congress on Science and Engineering, Niğde, Turkey, 14 - 15 June 2021, pp.849-856
- VIII. **Effect of Pressure Increase Rate and Threshold Speed Parameters to Static Friction Forces in Pneumatic Cylinders**
Dağdelen M., Sarıgeçili M. İ.
III. International Turkic World Congress on Science and Engineering, Niğde, Turkey, 14 - 15 June 2021, pp.838-848
- IX. **DOĞRUSAL POTANSİYOMETRELERİN MEKANİK SİSTEMLERDEKİ SÜRTÜNME KUVVETİNE ETKİSİ**
DAĞDELEN M., ÖZGÜR H. E., SARIGEÇİLİ M. İ.
4. ÇUKUROVA ULUSLARARASI BİLİMSEL ARAŞTIRMALAR KONGRESİ, Adana, Turkey, 21 - 23 February 2020, pp.205-217
- X. **DEVELOPMENT OF A PROTOTYPE EXPERIMENTAL SETUP FOR MACHINE LEARNING BASED CONTROL APPLICATIONS**
ÖZGÜR H. E., DAĞDELEN M., SARIGEÇİLİ M. İ.
4. ÇUKUROVA ULUSLARARASI BİLİMSEL ARAŞTIRMALAR KONGRESİ, Adana, Turkey, 21 - 23 February 2020, pp.49-50
- XI. **Friction Torque Estimation of Vane Type Semi-Rotary Pneumatic Actuators In The Form Of Combined Coulomb-Viscous Model**
DAĞDELEN M., SARIGEÇİLİ M. İ.
5TH INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING, İstanbul, Turkey, 17 - 19 December 2019, pp.1152-1161
- XII. **PERFORMANCE COMPARISON OF REINFORCEMENT LEARNING ALGORITHMS ON CART-POLE CONTROL PROBLEM**
Özgür H. E., Sarıgeçili M. İ.
CISSET - 2nd Cilicia International Symposium on Engineering and Technology, Mersin, Turkey, 10 - 12 October 2019, pp.262-265
- XIII. **DESIGN OF A UNIFORM ICE CUTTING DEVICE**
Sarıgeçili M. İ., Akçalı İ. D.
CISSET - 2nd Cilicia International Symposium on Engineering and Technology, Mersin, Turkey, 10 - 12 October 2019, pp.311-317
- XIV. **DESIGN OF AN EXPERIMENTAL SETUP FOR DETERMINING FRICTION PARAMETERS OF LINEAR**

PNEUMATIC CYLINDERS

DAĞDELEN M., SARIGEÇİLİ M. İ.

4TH INTERNATIONAL ENERGY & ENGINEERING CONGRESS, Gaziantep, Turkey, 24 - 25 October 2019, pp.637-638

- XV. **TEMEL ULTRASONİK ÖLÇÜMLE 2B HARİTALAMA ÇALIŞMASI İÇİN DONANIM TASARIMI**
Özgür H. E., SARIGEÇİLİ M. İ.
XVI. Otomatik Kontrol Seminer ve Sergisi, Adana, Turkey, 24 - 25 April 2019, pp.35-40
- XVI. **Arduino Tabanlı On Altı Serbestlik Dereceli İnsansı Robot Tasarımı**
SATMAZ S., YAVUZ Ö., KÖMÜRKARA H., KARAYÜN A., ÇAYLAKLI A., ULUSAL M., CHAUDHARY S., AKYAR Y. C., KIRINTI S., SARIGEÇİLİ M. İ.
XVI. Otomatik Kontrol Seminer ve Sergisi, Adana, Turkey, 24 April - 25 July 2019, pp.41-45
- XVII. **Üst Uzuv Rehabilitasyon Robotlarında Kontrol Teknikleri**
DAĞDELEN M., SARIGEÇİLİ M. İ.
XVI. Otomatik Kontrol Seminer ve Sergisi, Adana, Turkey, 24 - 25 April 2019, pp.94-101
- XVIII. **PNÖMATİK TAHRİKLİ ALT UZUV REHABİLİTASYON ROBOTUNDA TEMEL POZİZYON KONTROLÜ**
ÖZGÜR H. E., SARIGEÇİLİ M. İ., ÇELEBİ K.
XV. OTOMATİK KONTROL SEMİNER VE SERGİSİ, Adana, Turkey, 25 - 26 May 2017, pp.129-134
- XIX. **KRANK-BİYEL MEKANİZMASINDA HIZ KONTROLÜ**
SARIGEÇİLİ M. İ., AKÇALI İ. D.
XV. OTOMATİK KONTROL SEMİNER VE SERGİSİ, Adana, Turkey, 25 - 26 May 2017, pp.148-154
- XX. **İKİ SERBESTLİK DERECELİ BİLEK VE ÖN KOL REHABİLİTASYON ROBOTUNUN KAPALI ÇEVİRİM KONTROLÜ**
DAĞDELEN M., SARIGEÇİLİ M. İ.
XV. OTOMATİK KONTROL SEMİNER VE SERGİSİ, Adana, Turkey, 25 - 26 May 2017, pp.57-65
- XXI. **Development of a conceptual model for wrist/forearm rehabilitation robot with two degrees of freedom**
DAĞDELEN M., SARIGEÇİLİ M. İ.
25th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2016, Belgrade, Serbia And Montenegro, 30 June - 02 July 2016, vol.540, pp.523-530
- XXII. **A method for adjusting moment input on an exoskeleton robot with fixed linear actuators**
Ozgur H. E., SARIGEÇİLİ M. İ.
25th International Conference on Robotics in Alpe-Adria-Danube Region, RAAD 2016, Belgrade, Serbia And Montenegro, 30 June - 02 July 2016, vol.540, pp.507-514
- XXIII. **Krank Biyel Mekanizmasında Kuvvet Kontrolü**
SARIGEÇİLİ M. İ., AKÇALI İ. D.
Endüstriyel Otomasyon Kongre ve Sergisi, Adana, Turkey, 14 - 16 May 2015, pp.183-191
- XXIV. **Ağırlık Destekli Yürüme Bandı Tabanlı Robotik Tedavi Sistemlerinde Yeni Bir Yaklaşım**
ÖZGÜR H. E., SARIGEÇİLİ M. İ.
Endüstriyel Otomasyon Kongre ve Sergisi, Adana, Turkey, 14 - 16 May 2015, pp.163-169
- XXV. **OPTIMUM MATERIAL SELECTION FOR WATER-JET INTENSIFIER**
Sarigeçili M. İ., Geren N.
15th International Materials Symposium (IMSP?2014), Denizli, Turkey, 15 - 17 October 2014, pp.800-810
- XXVI. **DEVELOPMENT OF AN INTEGRATED PRODUCT, PROCESS AND MATERIAL INFORMATION MODEL**
Roy U., Sarigecili M. I.
ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference (IDETC/CIE), Oregon, United States Of America, 4 - 07 August 2013
- XXVII. **An evaluation mechanism for defining gaps and overlaps of product information exchange standards**
Sarigecili M. İ., Baysal M. M., Roy U., Rachuri S., Sriram R. D., Mani M.
ASME International Mechanical Engineering Congress and Exposition, IMECE 2007, Seattle, WA, United States Of America, 11 - 15 November 2007, vol.3, pp.179-185
- XXVIII. **Functional and behavioral representation of product information for collaboration in product lifecycle**

BAYSAL M. M., SARIGEÇİLİ M. İ., ROY U.

ASME 2007 International Mechanical Engineering Congress and Exposition, SEATTLE, United States Of America, 11
- 15 November 2007, vol.3, pp.133-141

Supported Projects

SARIGEÇİLİ M. İ., ÖZGÜR H. E., DAĞDELEN M., Project Supported by Higher Education Institutions, Giyilebilir Alt İskelet Robotlarında Mafsal Dinamik Parametrelerinin Ölçülmesi, 2018 - 2021

SARIGEÇİLİ M. İ., Özgür H. E., Project Supported by Higher Education Institutions, Pnömatik Silindirlerin Giyilebilir Alt İskelet Robotlarında Uygulanması, 2015 - 2017

SARIGEÇİLİ M. İ., Project Supported by Higher Education Institutions, OPTIMUM MATERIAL SELECTION FOR WATER-JET INTENSIFIER, 2014 - 2015

Scientific Refereeing

Journal of Engineering Design, SCI Journal, August 2018

Journal of Engineering Design, SCI Journal, June 2018

Çukurova Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi , National Scientific Refreed Journal, May 2018

Metrics

Publication: 48

Citation (WoS): 62

Citation (Scopus): 85

H-Index (WoS): 2

H-Index (Scopus): 4

Non Academic Experience

Syracuse University

Syracuse University

Lehigh University