

## Prof. MUSTAFA KEMAL ÖZGÖREN

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### Advising Theses

ÖZGÖREN M. K., Modelling of an articulated flying body and control system design, Postgraduate, B.TUTKU(Student), 2022

ÖZGÖREN M. K., CONTROL OF A PLANAR CABLE-ACTUATED PARALLEL MANIPULATOR WITH REALISTIC CABLES, Postgraduate, O.DÜZGÖREN(Student), 2018

LEBLEBİCİOĞLU M. K., ÖZGÖREN M. K., Some optimal control problems in electric vehicles, Doctorate, K.AHISKA(Student), 2016

ÖZGÖREN M. K., Design and analysis of a 3-dof translational shock absorbing parallel manipulator, Postgraduate, G.YILDIZ(Student), 2016

ÖZGÖREN M. K., Design and analysis of the 3-DOF translational shock absorbing parallel manipulator, Postgraduate, G.Yıldız(Student), 2016

ÖZGÖREN M. K., GÜRSES S., The somatosensory and vestibular interaction in human postural control, Doctorate, M.EMRE(Student), 2015

ÖZGÖREN M. K., Biased proportional navigation guidance for impact angle control with extension to three-dimensional engagements /, Doctorate, K.SAVAŞ(Student), 2015

ÖZGÖREN M. K., Investigation of control of human balance-recovery reactions, Doctorate, N.BİLGİN(Student), 2015

ÖZGÖREN M. K., Optimal redundancy resolution for kinematically redundant parallel manipulators, Postgraduate, S.TANSEL(Student), 2014

ÖZGÖREN M. K., Multistage launch vehicle design with thrust profile and trajectory optimization /, Doctorate, E.CİVEK(Student), 2014

ÖZGÖREN M. K., The effects of random seeker noise and target maneuver on guidance performance, Postgraduate, O.ÖZGÜR(Student), 2014

ÖZGÖREN M. K., Inertial navigation system improvement using ground station data, Doctorate, D.RAUF(Student), 2012

ÖZGÖREN M. K., Orbit transfer optimization of a spacecraft with impulsive thrusts using genetic algorithm, Postgraduate, A.Yılmaz(Student), 2012

ÖZGÖREN M. K., Research on transfer alignment for increased speed and accuracy, Doctorate, U.KAYASAL(Student), 2012

ÖZGÖREN M. K., Modeling and control of autonomous underwater vehicle manipulator systems, Doctorate, O.KORKMAZ(Student), 2012

KONUKSEVEN E. İ., ÖZGÖREN M. K., Multisensor dead reckoning navigation on a tracked vehicle using Kalman filter, Postgraduate, S.Kırımlioğlu(Student), 2012

ÖZGÖREN M. K., Orbit transfer optimization of spacecraft with impulsive thrusts using genetic algorithm, Postgraduate, A.YILMAZ(Student), 2012

ÖZGÖREN M. K., MULTISENSOR DEAD RECKONING NAVIGATION ON A TRACKED VEHICLE USING KALMAN FILTER, Postgraduate, S.KIRIMLIOĞLU(Student), 2012

ÖZGÖREN M. K., Kinematic and force analyses of overconstrained mechanisms, Postgraduate, D.ÜSTÜN(Student), 2011

ÖZGÖREN M. K., Simulation of biped locomotion of humanoid robots in 3D space, Postgraduate, G.Akalm(Student), 2010

ÖZGÖREN M. K., Modeling and control of a hyper redundant manipulator, Doctorate, A.BAYRAM(Student), 2010

TEKİNALP O., ÖZGÖREN M. K., Attitude control of multiple rigid body spacecraft with flexible hinge joints, Postgraduate, B.AKBULUT(Student), 2009

ÖZGÖREN M. K., Sliding mode control of linearly actuated nonlinear systems, Postgraduate, B.DURMAZ(Student), 2009

ÖZGÖREN M. K., Control of systems under the effect of friction, Postgraduate, B.BAYKARA(Student), 2009

ÖZGÖREN M. K., Land vehicle navigation with GPS/INS sensor fusion using kalman filter, Postgraduate, M.EMRE(Student), 2008

ÖZGÖREN M. K., High angle of attack maneuvering and stabilization control of aircraft, Doctorate, Ö.ATEŞOĞLU(Student), 2007

ÖZGÖREN M. K., Modeling and simulation of a navigation system with an IMU and a Magnetometer, Postgraduate, U.Kayasal(Student), 2007

ÖZGÖREN M. K., High angle attack maneuvering and stabilization control of aircraft, Doctorate, Ö.Ateşoğlu(Student), 2007

ÖZGÖREN M. K., Navigation and control studies on cruise missiles, Doctorate, V.Ekütekin(Student), 2007

ÖZGÖREN M. K., Modeling and simulation of a maneuvering ship, Postgraduate, S.PAKKAN(Student), 2007

ÖZGÖREN M. K., Modeling and motion simulation of an underwater simulation, Postgraduate, K.Küçük(Student), 2007

ÖZGÖREN M. K., Dynamic modeling, guidance, and control of homing missiles, Doctorate, B.Özkan(Student), 2005

ÖZGÖREN M. K., 3-D humanoid gait simulation using an optimal predictive control, Postgraduate, G.Özyurt(Student), 2005

ÖZGÖREN M. K., Stability Augmentation of a Semi-Autonomous Wheelchair, Postgraduate, H.Müjde(Student), 2004

ÖZGÖREN M. K., Özgören M., Fuzzy logic guidance system design for guided missiles, Postgraduate, A.Özgür(Student), 2003

ÖZGÖREN M. K., Position/force control of robot manipulators, Postgraduate, M.İsmet(Student), 2003

ÖZGÖREN M. K., Integration and error modelling of global positioning system (GPS) and inertial navigation system (INS), Postgraduate, V.EKÜTEKİN(Student), 2000

ÖZGÖREN M. K., Design and performance of cargo type warheads, Postgraduate, Ş.KORKMAZ(Student), 2000

ÖZGÖREN M. K., Kinematic and force analysis of parallel and hybrid manipulators, Postgraduate, S.HİMMETOĞLU(Student), 2000

ÖZGÖREN M. K., Dynamic modeling and control of two coordinated robot manipulators, Postgraduate, B.ÖZKAN(Student), 1999

ÖZGÖREN M. K., Non-linear flight dynamics of unguided missiles, Doctorate, Ö.Tanrıkulu(Student), 1999

ÖZGÖREN M. K., Two new switching surface design techniques for nonlinear systems with their applications to missile control, Doctorate, M.UYMAZ(Student), 1999

ÖZGÖREN M. K., Game theoretic pursuit-evasion strategies for a missile and its target, Doctorate, O.Merttopçuoğlu(Student), 1998

ÖZGÖREN M. K., Analysis and control of manipulators at singular positions, Postgraduate, E.BİLGE(Student), 1996

ÖZGÖREN M. K., Smooth optimal control of robotic manipulators for minimum time and energy, Postgraduate, J.KARAMAN(Student), 1995

ÖZGÖREN M. K., Thrust vector and aerodynamic control of missiles, Postgraduate, M.YANGEL(Student), 1995

ÖZGÖREN M. K., Dynamics and control of a stabilized platform, Doctorate, Ö.ETKA(Student), 1994

ÖZGÖREN M. K., Control of a missile to follow a moving target, Postgraduate, H.ERGIN(Student), 1992

ÖZGÖREN M. K., Motion and energy optimizations of a redundant manipulator, Postgraduate, T.Ş.(Student), 1991

ÖZGÖREN M. K., Simulation and comparison of various control types as applied to manipulators, Postgraduate, M.UYMAZ(Student), 1990

ÖZGÖREN M. K., Thrust vector control of a rocket vehicle associated with aerodynamic control, Postgraduate, C.YALÇIN(Student), 1989

ÖZGÖREN M. K., The Position-force hybrid control of robotic manipulators, Postgraduate, V.CEYHAN(Student), 1989

ÖZGÖREN M. K., Design and construction of a robotic manipulator with six revolute joints, Postgraduate, İ.BAŞÇUHADAR(Student), 1989

ÖZGÖREN M. K., Effect of dry-friction on the position control of robot arms, Postgraduate, M.FATİH(Student), 1989

ÖZGÖREN M. K., Effects of delays on control systems, Postgraduate, M.MUNGAN(Student), 1987

## **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **Energy and Time Optimal Autopilot for Electric Vehicles Performing Ackerman Cornering**  
Ahiska K., ÖZGÖREN M. K., LEBLEBİCİOĞLU M. K.  
IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, vol.23, no.10, pp.17258-17270, 2022 (SCI-Expanded)
- II. **Composite impact vector control based on Apollo descent guidance**  
ERER K. S., TEKİN R., ÖZGÖREN M. K.  
Chinese Journal of Aeronautics, vol.35, no.7, pp.67-74, 2022 (SCI-Expanded)
- III. **Hybrid Force and Motion Control of a Three-Dimensional Flexible Robot Considering Measurement Noises**  
KILIÇASLAN S., ÖZGÖREN M. K., İDER S. K.  
Machines, vol.10, no.7, 2022 (SCI-Expanded)
- IV. **Motion Control of a Spatial Elastic Manipulator in the Presence of Measurement Noises**  
KILIÇASLAN S., İDER S. K., ÖZGÖREN M. K.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.46, no.12, pp.12331-12354, 2021 (SCI-Expanded)
- V. **Energy Optimality in Electric Vehicles Along Uphill-Downhill Roads**  
Ahiska K., ÖZGÖREN M. K., LEBLEBİCİOĞLU M. K.  
IEEE TRANSACTIONS ON INTELLIGENT VEHICLES, vol.6, no.3, pp.390-405, 2021 (SCI-Expanded)
- VI. **Design and kinematic analysis of a novel rehabilitative robotic walking simulation device**  
Kose K. C., ÖZGÖREN M. K., Tekce F., DÖNER N.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART H-JOURNAL OF ENGINEERING IN MEDICINE, vol.235, no.7, pp.770-779, 2021 (SCI-Expanded)
- VII. **Estimation of the Balance-Keeping Control Law Applied by a Human Being Upon a Sudden Sagittal Tilt Perturbation**  
BİLGİN N., ÖZGÖREN M. K.  
JOURNAL OF BIOMECHANICAL ENGINEERING-TRANSACTIONS OF THE ASME, vol.141, no.4, 2019 (SCI-Expanded)
- VIII. **Kinematic and Kinetostatic Analysis of Parallel Manipulators with Emphasis on Position, Motion, and Actuation Singularities**  
ÖZGÖREN M. K.  
ROBOTICA, vol.37, no.4, pp.599-625, 2019 (SCI-Expanded)
- IX. **Comparative study of attitude control methods based on Euler angles, quaternions, angle-axis pairs and orientation matrices**  
ÖZGÖREN M. K.  
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.41, no.5, pp.1189-1206, 2019 (SCI-Expanded)
- X. **Autopilot Design for Vehicle Cornering Through Icy Roads**  
Ahiska K., ÖZGÖREN M. K., LEBLEBİCİOĞLU M. K.  
IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol.67, no.3, pp.1867-1880, 2018 (SCI-Expanded)
- XI. **Performance comparison of the notable acceleration- and angle-based guidance laws for a short-range air-to-surface missile**  
Ozkan B., ÖZGÖREN M. K., Mahmutyazicioglu G.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.25, no.5, pp.3591-3606, 2017 (SCI-Expanded)
- XII. **TRAJECTORY TRACKING CONTROL OF AN UNDERACTUATED UNDERWATER VEHICLE REDUNDANT MANIPULATOR SYSTEM**  
Korkmaz O., İDER S. K., ÖZGÖREN M. K.

ASIAN JOURNAL OF CONTROL, vol.18, no.5, pp.1593-1607, 2016 (SCI-Expanded)

- XIII. **Optimal Inverse Kinematic Solutions for Redundant Manipulators by Using Analytical Methods to Minimize Position and Velocity Measures**  
ÖZGÖREN M. K.  
JOURNAL OF MECHANISMS AND ROBOTICS-TRANSACTIONS OF THE ASME, vol.5, no.3, 2013 (SCI-Expanded)
- XIV. **The position control of a spatial binary hyper redundant manipulator through its inverse kinematics**  
Bayram A., ÖZGÖREN M. K.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.227, pp.359-372, 2013 (SCI-Expanded)
- XV. **Sliding mode control for non-linear systems with adaptive sliding surfaces**  
Durmaz B., ÖZGÖREN M. K., SALAMCI M. U.  
TRANSACTIONS OF THE INSTITUTE OF MEASUREMENT AND CONTROL, vol.34, no.1, pp.56-90, 2012 (SCI-Expanded)
- XVI. **The conceptual design of a spatial binary hyper redundant manipulator and its forward kinematics**  
Bayram A., ÖZGÖREN M. K.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.226, pp.217-227, 2012 (SCI-Expanded)
- XVII. **Hybrid force and motion control of robots with flexible links**  
KILIÇASLAN S., ÖZGÖREN M. K., Ider S. K.  
MECHANISM AND MACHINE THEORY, vol.45, no.1, pp.91-105, 2010 (SCI-Expanded)
- XVIII. **Comparison of position controllers designed for an elastic system using its complete and deficient dynamic models**  
ÖZGÖREN M. K.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, vol.224, pp.93-107, 2010 (SCI-Expanded)
- XIX. **Control and Robustness Analysis for a High-alpha Maneuverable Thrust-Vectoring Fighter Aircraft**  
Atesoglu O., ÖZGÖREN M. K.  
JOURNAL OF GUIDANCE CONTROL AND DYNAMICS, vol.32, no.5, pp.1483-1496, 2009 (SCI-Expanded)
- XX. **An algebraic method for designing controllers for multi-input multi-output linear systems via s-domain input-output decoupling**  
ÖZGÖREN M. K.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, vol.223, pp.263-274, 2009 (SCI-Expanded)
- XXI. **Motion control of flexible-link manipulators**  
KILIÇASLAN S., Ider S. K., ÖZGÖREN M. K.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.222, no.12, pp.2441-2453, 2008 (SCI-Expanded)
- XXII. **Kinematic analysis of spatial mechanical systems using exponential rotation matrices**  
Ozgoren M. K.  
JOURNAL OF MECHANICAL DESIGN, vol.129, no.11, pp.1144-1152, 2007 (SCI-Expanded)
- XXIII. **Trajectory tracking control of robots with flexible links**  
Ider S., Ozgoren M., Ay V.  
MECHANISM AND MACHINE THEORY, vol.37, no.11, pp.1377-1394, 2002 (SCI-Expanded)
- XXIV. **Topological analysis of 6-joint serial manipulators and their inverse kinematic solutions**  
Ozgoren M.  
MECHANISM AND MACHINE THEORY, vol.37, no.5, pp.511-547, 2002 (SCI-Expanded)
- XXV. **A kinematic structure-based classification and compact kinematic equations for six-dof industrial robotic manipulators**  
Balkan T., Ozgoren M., Arikan M., Baykurt H.  
MECHANISM AND MACHINE THEORY, vol.36, no.7, pp.817-832, 2001 (SCI-Expanded)
- XXVI. **Invalid joint arrangements and actuator related singular configurations of a system of two**

### **cooperating SCARA manipulators**

Ozkan B., Ozgoren M.

MECHATRONICS, vol.11, no.4, pp.491-507, 2001 (SCI-Expanded)

- XXVII. **Motion control of constrained systems considering their actuation-related singular configurations**  
Ozgoren M.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART I-JOURNAL OF SYSTEMS AND CONTROL ENGINEERING, vol.215, pp.113-123, 2001 (SCI-Expanded)
- XXVIII. **A method of inverse kinematics solution including singular and multiple configurations for a class of robotic manipulators**  
Balkan T., Ozgoren M., Arikan M., Baykurt H.  
MECHANISM AND MACHINE THEORY, vol.35, no.9, pp.1221-1237, 2000 (SCI-Expanded)
- XXIX. **Trajectory tracking control of flexible-joint robots**  
IDER S., Ozgoren M.  
COMPUTERS & STRUCTURES, vol.76, no.6, pp.757-763, 2000 (SCI-Expanded)
- XXX. **Sliding mode control with optimal sliding surfaces for missile autopilot design**  
Salamci M., Ozgoren M., Banks S.  
JOURNAL OF GUIDANCE CONTROL AND DYNAMICS, vol.23, no.4, pp.719-727, 2000 (SCI-Expanded)
- XXXI. **Kinematic analysis of a manipulator with its position and velocity related singular configurations**  
Ozgoren M.  
MECHANISM AND MACHINE THEORY, vol.34, no.7, pp.1075-1101, 1999 (SCI-Expanded)
- XXXII. **SOME REMARKS ON ROTATION SEQUENCES AND ASSOCIATED ANGULAR VELOCITIES**  
OZGOREN M.  
MECHANISM AND MACHINE THEORY, vol.29, no.7, pp.933-940, 1994 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. **Comparison of the linear homing, parabolic homing and proportional navigation guidance methods on a two-part homing missile against a surface target**  
Özkan B., ÖZGÖREN M. K., Mahmutyazicioğlu G.  
Gazi University Journal of Science, vol.23, no.1, pp.81-87, 2010 (Scopus)

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **Biased Proportional Navigation with Exponentially Decaying Error for Impact Angle Control and Path Following**  
Erer K. S., Tekin R., ÖZGÖREN M. K.  
24th Mediterranean Conference on Control and Automation (MED), Athens, Greece, 21 - 24 June 2016, pp.238-243
- II. **A Balance Keeping Control for Humanoid Robots by Using Model Predictive Control**  
Bilgin N., ÖZGÖREN M. K.  
17th IEEE International Carpathian Control Conference (ICCC), Tatranska Lomnica, Slovakia, 29 May - 01 June 2016, pp.60-65
- III. **Energy Optimal Controller for Electric Vehicles on Partially Icy Roads with Heuristic Skidding Compensation**  
Ahiska K., ÖZGÖREN M. K., LEBLEBİCİOĞLU M. K.  
15th International Conference on Control, Automation and Systems (ICCAS), Busan, South Korea, 13 - 16 October 2015, pp.101-106
- IV. **Control of a Planar Satellite with an Unactuated Movable Solar Panel**  
Acar Y., Yavuzylmaz C., ÖZGÖREN M. K.  
7th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 16 - 19 June

2015, pp.105-110

- V. **Sliding Mode based Longitudinal Guidance of UAVs**  
Shah M. Z., ÖZGÖREN M. K., Samar R.  
United-Kingdom-Automatic-Control-Council (UKACC) 10th International Conference on Control (CONTROL),  
Loughborough, United Kingdom, 9 - 11 July 2014, pp.121-126
- VI. **A Generalized Staging Optimization Program For Space Launch Vehicles**  
Civek-Coskun E., ÖZGÖREN M. K.  
6th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 12 - 14 June  
2013, pp.857-862
- VII. **Application of Beacon Navigation and Angle-Only Artillery Surveying Methods for INS Aiding on  
Aerial Platforms in GNSS Denied Environments**  
Guner D. R. L., ÖZGÖREN M. K., PLATİN B. E.  
ION Pacific PNT Meeting, Hawaii, United States Of America, 23 - 25 April 2013, pp.858-868
- VIII. **Attitude control of a piezo-strut mounted camera on a spacecraft with deployed solar panels**  
Kayastha S., Akbulut B., TEKİNALP O., ÖZGÖREN M. K.  
2011 IEEE Aerospace Conference, AERO 2011, Big Sky, MT, United States Of America, 5 - 12 March 2011
- IX. **Estimation of separation aerodynamics using photogrammetric data**  
Murat Karbançoğlu İ., Mahmutyazicioğlu G., ÖZGÖREN M. K.  
AIAA Atmospheric Flight Mechanics Conference 2010, Toronto, Canada, 2 - 05 August 2010
- X. **ATTITUDE CONTROL OF MULTIPLE RIGID BODY SPACECRAFT WITH FLEXIBLE HINGE JOINTS**  
Akbulut B., ÖZGÖREN M. K., TEKİNALP O.  
20th AAS/AIAA Spaceflight Mechanics Meeting, California, United States Of America, 14 - 18 February 2010,  
vol.136, pp.2477-2478
- XI. **POINTING PERFORMANCE INVESTIGATION OF A MULTIPLE RIGID BODY SPACECRAFT**  
Akbulut B., ÖZGÖREN M. K., TEKİNALP O.  
AAS/AIAA 19th Space Flight Mechanics Meeting, Savannakhet, Laos, 8 - 12 February 2009, vol.134, pp.1029-1030
- XII. **The Stabilization Controller Design for a Tripod Type Parallel Manipulator Used for Active  
Suspension of a Delicate Device**  
Atesoglu O., ÖZGÖREN M. K.  
IEEE International Conference on Control Applications, San-Antonio, Northern Mariana Islands, 3 - 05 September  
2008, pp.237-238
- XIII. **Control of constrained spatial three-link flexible manipulators**  
KILIÇASLAN S., ÖZGÖREN M. K., Ider S. K.  
15th Mediterranean Conference on Control and Automation, Athens, Greece, 27 - 29 June 2007, pp.1526-1527
- XIV. **Removing force indeterminacy in a Hooke joint mechanism by increasing and modifying its joints  
without causing singularities**  
Himmetoglu S., Ozgoren M.  
11th World Congress in Mechanism and Machine Science, Tianjin, China, 1 - 04 April 2004, pp.1305-1308

## Metrics

Publication: 47

Citation (WoS): 298

Citation (Scopus): 333

H-Index (WoS): 11

H-Index (Scopus): 10

## Non Academic Experience

TÜBİTAK-SAGE  
ROKETSAN  
NATO-AGARD  
TÜBİTAK-BAE