#### Prof. ERES SÖYLEMEZ

#### **Personal Information**

Email: eres@metu.edu.tr

Web: https://avesis.metu.edu.tr/eres

# **Advising Theses**

Tönük E., Söylemez E., Comparison of constructional aspects of different railway point machines, Postgraduate, O.OVALI(Student), 2019

SÖYLEMEZ E., Design of a reconnaissance and surveillance robot, Postgraduate, E.ÇAĞAN(Student), 2013

SÖYLEMEZ E., Design of compliant mechanisms for industrial applications, Postgraduate, A.YILMAZ(Student), 2013

SÖYLEMEZ E., The multi-objective path placement optimization of parallel kinematic machines, Postgraduate,

A.KÜÇÜK(Student), 2013

SÖYLEMEZ E., Dynamic modeling of high precision servo systems with gear backlash, Postgraduate,

Z.YUMRUKÇAL(Student), 2013

SÖYLEMEZ E., Design of a skid-steer loader, Postgraduate, T.YALÇIN(Student), 2012

SÖYLEMEZ E., Design of a compliant bistable loock mechanism for a dishwasher functionally binary initially curved pinned-pinned segments, Postgraduate, U.Ünverdi(Student), 2012

SÖYLEMEZ E., Design of a compliant bistable lock mechanism for a dishwasher using functionally binary initially curved pinned-pinned segments, Postgraduate, U.ÜNVERDİ(Student), 2012

SÖYLEMEZ E., Developing a four-bar mechanism synthesis program in CAD environment, Postgraduate,

K.ERENER(Student), 2011

SÖYLEMEZ E., Design methods for planar and spatial deployable structures, Doctorate, G.KİPER(Student), 2011

AKKÖK M., SÖYLEMEZ E., Design and construction of boundary lubricated bearing test rig and wear analysis in earthmoving machinery, Postgraduate, K.SERDAR(Student), 2010

SÖYLEMEZ E., Ride model and simulation of a backhoe-loader, Postgraduate, D.ALİ(Student), 2010

SÖYLEMEZ E., Acoustical analysis of exhaust mufflers for earth-moving machinery, Postgraduate, T.OLĞAR(Student), 2009

 $S\"{O}YLEMEZ~E.,~Dynamic~modeling~of~an~excavator~during~digging~and~simulating~the~motion,~Postgraduate,\\$ 

Ö.MUTLU(Student), 2009

SÖYLEMEZ E., Design of a car door window regulator, Postgraduate, M.ÖZSİPAHİ(Student), 2009

SÖYLEMEZ E., Design of a mechanism for opening hacthback car baggage door, Postgraduate, Y.DURAN(Student), 2009

BALKAN R. T., SÖYLEMEZ E., Dynamic modelling of a backhoe-loader, Postgraduate, B.KILIÇ(Student), 2009

SÖYLEMEZ E., Design of a mechanism for opening hatchback car baggage door, Postgraduate, Y.Duran (Student), 2009

SÖYLEMEZ E., Structural optimization of a triner aircraft wing by using genetic algorithm, Postgraduate,

M.Kağan(Student), 2008

SÖYLEMEZ E., Shape optimization of an excavator boom by using genetic algorithm, Postgraduate, C.CAN(Student), 2008

SÖYLEMEZ E., Structural optimization of a trainer aircraft wing by using genetic algorithm, Postgraduate,

M.KAĞAN(Student), 2008

SÖYLEMEZ E., Shape optimization of wheeled excavator lower chassis, Postgraduate, E.ÖZBAYRAMOĞLU(Student), 2008

SÖYLEMEZ E., Design and implementation of a two-axes linear positioning system for rapid prototyping applications,

Postgraduate, F.YAZICIOĞLU(Student), 2007

SÖYLEMEZ E., On the analysis and design of a new type of partially compliant mechanism, Doctorate, E.TANIK(Student), 2007

SÖYLEMEZ E., Design of a demolition boom, Postgraduate, B.ÇETİN(Student), 2007

KOKU A. B., SÖYLEMEZ E., Computer aided manufacturing (CAM) data generation for solid freeform fabricaton, Postgraduate, O.YARKINOĞLU(Student), 2007

SÖYLEMEZ E., On the synthesis of a class of geared linkage mechanisms, Doctorate, V.PARLAKTAŞ(Student), 2007

SÖYLEMEZ E., Optimization of backhoe-loader mechanisms, Postgraduate, L.İPEK(Student), 2006

SÖYLEMEZ E., KİŞİSEL A. U. Ö., New design methods for polyhedral linkages, Postgraduate, G.KİPER(Student), 2006

SÖYLEMEZ E., Kinematic design of mechanisms in a computer aided design environment, Postgraduate,

E.Demir(Student), 2005

SÖYLEMEZ E., Kinematic synthesis of spatial mechanisms using algebra of exponential rotation matrices, Postgraduate, F.SOLTANİ(Student), 2005

SÖYLEMEZ E., Synthesis of compliant bistable four-link mechanisms for two positions, Postgraduate, L.Subaşı(Student), 2005

SÖYLEMEZ E., Kinematic design of mechanisms in a computer aided design environment, Postgraduate, E.DEMİR(Student), 2005

SÖYLEMEZ E., Numerical and experimental investigation of fatigue life in deep drawn parts, Postgraduate,

O.AYTEKIN(Student), 2005

SÖYLEMEZ E., Design of a computer interface for automatic finite element analysis of an excavator boom, Postgraduate, M.YENER(Student), 2005

SÖYLEMEZ E., Synthesis of compliant bistable four-link mechanisims for two positions, Postgraduate, L.SUBAŞI(Student), 2005

SÖYLEMEZ E., Preparation of a computer aided design package for opto-mechanical design of forward looking infrared systems, Postgraduate, A.ÇAĞRI(Student), 2001

SÖYLEMEZ E., Synthesis and analysis of compliant mechanisms, Postgraduate, V.NARLI(Student), 2001

YAMAN Y., SÖYLEMEZ E., Design a mechanical flight control systems for light aircraft, Postgraduate, Y.Akman(Student), 2001

SÖYLEMEZ E., Two degrees of freedom variable structure mechanisms design, Postgraduate, E.TANIK(Student), 2001 SÖYLEMEZ E., Computer aided kinematic analysis of multi-loop planar mechanisms, Postgraduate, U.ULUSHAN(Student), 2001

SÖYLEMEZ E., Development of an interactive visual planar mechanism synthesis and analysis program by using delphi object oriented programming environment, Postgraduate, A.SERDAR(Student), 2001

SÖYLEMEZ E., Optimum synthesis of large dwell mechanisms, Postgraduate, V.PARLAKTAŞ(Student), 2001

YAMAN Y., SÖYLEMEZ E., Design of a mechanical flight control systems for light aircraft, Postgraduate,

Y.AKMAN(Student), 2001

SÖYLEMEZ E., Two degrees of freedom adjustable mechanisms design, Postgraduate, A.Akmeşe(Student), 2000

SÖYLEMEZ E., Two derees of freedom adjustable mechanisms design, Postgraduate, A.AKMEŞE(Student), 2000

SÖYLEMEZ E., Design of crank-rocker type four bar mechanisms for input-output curve generation, Postgraduate, E.Gökkuş(Student), 1993

SÖYLEMEZ E., Synthesis of coupler curves mechanisms by pattern recognition techniques, Postgraduate, E.TÖNÜK(Student), 1992

SÖYLEMEZ E., Computer aided synthesis of straight-line motion mechanisms, Postgraduate, S.ALİ(Student), 1988

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

I. A novel design method for underactuated variable oscillation mechanisms

TANIK E., SÖYLEMEZ E.

JOURNAL OF ADVANCED MECHANICAL DESIGN SYSTEMS AND MANUFACTURING, vol.9, no.1, 2015 (SCI-Expanded)

II. Homothetic Jitterbug-like linkages

Kiper G., SÖYLEMEZ E.

MECHANISM AND MACHINE THEORY, vol.51, pp.145-158, 2012 (SCI-Expanded)

III. Analysis and design of a compliant variable stroke mechanism

TANIK E., SÖYLEMEZ E.

MECHANISM AND MACHINE THEORY, vol.45, no.10, pp.1385-1394, 2010 (SCI-Expanded)

#### IV. On the synthesis of a geared four-bar mechanism

PARLAKTAŞ V., SÖYLEMEZ E., TANIK E.

MECHANISM AND MACHINE THEORY, vol.45, no.8, pp.1142-1152, 2010 (SCI-Expanded)

#### V. A family of deployable polygons and polyhedra

Kiper G., SÖYLEMEZ E., KİŞİSEL A. U. Ö.

MECHANISM AND MACHINE THEORY, vol.43, no.5, pp.627-640, 2008 (SCI-Expanded)

# Refereed Congress / Symposium Publications in Proceedings

# I. Four-Bar Function Generation Using Excel Solver

SÖYLEMEZ E., Kiper G.

16th International Federation of Theory of Machines and Mechanisms World Congress, IFToMM WC 2023, Tokyo, Japan, 5 - 09 November 2023, vol.149, pp.208-218

#### II. A Sustainable Association Case Study: IFToMM Member Organization Turkey

Kiper G., SÖYLEMEZ E.

1st IFToMM for Sustainable Development Goals workshop (I4SDG), ELECTR NETWORK, 25 - 26 November 2021, vol.108, pp.608-615

# III. İKİ ANTENDEN OLUŞAN RADAR SİSTEMİ İÇİN KATLANMA MEKANİZMASI GELİŞTİLMESİ

YURT H. K., TURGUT A. E., SÖYLEMEZ E., Güler İ., Fırtınaoğlu E.

19. Ulusal Makina Teorisi Sempozyumu, UMTS 2019, Iskenderun, Turkey, 4 - 06 September 2019

## IV. On the Accuracy Analyses of a Class of 2-DOF Planar Parallel Manipulators

Ozsipahi M., SÖYLEMEZ E.

3rd Conference of the Mechanisms Transmissions and Applications, Aachen, Germany, 6 - 08 May 2015, vol.31, pp.41-48

# V. Kinematic Design of a Reconfigurable Deployable Canopy

KİPER G., Gurcu F., KORKMAZ K., SÖYLEMEZ E.

5th European Conference on Mechanism Science (EUCOMES), Guimaraes, Portugal, 16 - 20 September 2014, vol.24, pp.167-174

### VI. Deployable Space Structures

Kiper G., SÖYLEMEZ E.

4th International Conference on Recent Advances in Space Technologies, İstanbul, Turkey, 11 - 13 June 2009, pp.131-138

# VII. Regular Polygonal and Regular Spherical Polyhedral Linkages Comprising Bennett Loops Kiper G., SÖYLEMEZ E.

5th International Workshop on Computational Kinematics, Duisburg, Germany, 6 - 08 May 2009, pp.249-256

# VIII. Using Computer Spreadsheets in Teaching Mechanisms

SÖYLEMEZ E.

2nd European Conference on Mechanism Science, Cassino, Italy, 17 - 20 September 2008, pp.45-53

# IX. Design and Implementation of a Modular and Open-For-Development Rapid Prototyping System YARKINOĞLU O., YAZICIOĞLU F., Söylemez E., KOKU A. B.

Proc. of the 13th International Conference on Machine Design and Production (UMTIK 2008), İstanbul, Turkey, 3 - 05 September 2008

#### **Metrics**

Publication: 16 Citation (WoS): 137 Citation (Scopus): 173 H-Index (WoS): 7 H-Index (Scopus): 6

# Non Academic Experience

METU Gazi Üniversitesi METU METU