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Professor of Mechanical Engineering

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WORK EXPERIENCE

- Nov. 2022 – Professor at Department of Mechanical Engineering, **İzmir Institute of Technology (IZTECH)**, İzmir, Türkiye
- March 2018 – Nov. 2022 Assoc. Prof. at Department of Mechanical Engineering, **IZTECH**, İzmir, Türkiye
- April 2013 – March 2018 Assist. Prof. at Department of Mechanical Engineering, **IZTECH**, İzmir, Türkiye
- Aug. 2012 – April 2013 Instructor Dr. at Department of Mechanical Engineering, **IZTECH**, İzmir, Türkiye
- May – June 2012 Postdoctoral fellow at Department of Mechanical Engineering, **National Cheng Kung University**, Tainan, Taiwan
- Nov. 2011 – May 2012 Design engineer at Technology Department, **Coşkunöz Metal Form Inc.**, Bursa, Turkey
- April – Aug. 2010 Visiting researcher at the Advanced Highway Maintenance and Construction Technology Research Center, Mechanical and Aeronautical Engineering Department, **University of California Davis**, Davis, California, USA
- Jan. 2005 – Sept. 2011 Teaching assistant at Department of Mechanical Engineering, **METU**, Ankara, Turkey
- 2003 – 2004 Founder member and assistant trainer of Karate Do at **Çankaya Municipality Arman Talay Sports Center**, Ankara, Türkiye
- 2003 – 2004 Student assistant at Mechanical Engineering Department – **METU**, Ankara, Türkiye
- Summer 2003 Intern at Research and Development Department, **Hidromek Inc.**, Ankara, Türkiye
- Summer 2002 Intern at Data Acquisition Systems Department, **ASELSAN Inc.**, Ankara, Türkiye

ADMINISTRATIVE DUTIES

- May 2023 – Executive Council Member, Education Directorate, **IZTECH**
- Feb. 2023 – Member, Honors and Awards Advisory Panel, **International Federation for the Promotion of Mechanism and Machine Science (IFTOMM)**
- Aug. 2022 – Secretary General, **İzmir Science High School Alumni Association (İFL-DER)**
- April 2022 – May 2023 Member, Education Commission, **IZTECH**
- Dec. 2020 – Chair, Member Organization (MO) Turkey, **IFTOMM**
- Feb. 2020 – Feb. 2023 Deputy Chair, Department of Mechanical Engineering, **IZTECH**
- Sept. 2019 – Board Chair, **Turkish Machine Theory Association (MakTeD)**
- April 2019 – Aug. 2022 Member, Publicity Commission, **IZTECH**
- July 2017 – Sept. 2019 Secretary General, **MakTeD**
- Feb. 2017 – April 2019 Deputy Chair, Department of Mechanical Engineering, **IZTECH**
- Dec 2015 – Dec. 2020 Deputy Chair, MO Turkey, **IFTOMM**
- Dec 2015 – July 2017 Board Deputy Chair, **MakTeD**
- June 2015 – Board Member, **MakTeD**

EDUCATION

- 2006 – 2011 Middle East Technical University (METU), Ankara, Turkey - PhD in Mechanical Engineering
Thesis title: Design Methods for Planar and Spatial Deployable Structures
- 2004 – 2006 METU, Ankara, Turkey - MS in Mechanical Engineering
Thesis title: New Design Methods for Polyhedral Linkages
- 2001 – 2004 METU, Ankara, Turkey - BS in Mathematics (Double Major)
- 2000 – 2004 METU, Ankara, Turkey - BS in Mechanical Engineering
- 1997 – 2000 İzmir High School of Science (İFL), İzmir, Turkey
- 1993 – 1997 Balıkesir Sırrı Yırcalı Anatolian High School (SYAL), Balıkesir, Turkey

PUBLICATIONS

Edited Books

Dede MİC, İtik M, Lovasz EC, Kiper G (Eds) (2018) Mechanisms, Transmissions and Applications: Proceedings of the Fourth MeTrApp Conference 2017. Springer

Kiper G, Dede MİC (Eds) (2015) Uluslararası Katılımlı 17. Makina Teorisi Sempozyumu Bildiri Kitabı / Proceedings of TrC-IFTToMM Symposium on Theory of Machines and Mechanisms. Makina Teorisi Derneği

International Journal Papers

Kadak T, Kiper G (2024) Function generation with planar four-bar mechanisms as a mixed problem of correlation of crank angles and dead center design. *Sādhanā*, 49:143 (Indexed in SCIE)

Özen G, Korkmaz K, Kiper G (2024) Design of rollable reciprocal frame network. *J IASS*, 65(1) to appear (Indexed in ESCI)

Liao Y, Kiper G, Krishnan S (2024) Mobility analysis of tripod scissor structures using screw theory. *Mechanism and Machine Theory*, 191:105468 (Indexed in SCIE)

Görgülü İ, Dede MİC, Kiper G (2023) Stiffness modeling of a 2-dof over-constrained planar parallel mechanism. *Mechanism and Machine Theory*, 185:105343 (Indexed in SCIE)

Demirel M, Kiper G, Carbone G, Ceccarelli M (2023) Design of a novel hybrid cable-constrained parallel leg mechanism for biped walking machines. *Robotica*, 41(6):1778-1793 (Indexed in SCIE)

Aldanmaz AB, Ayit O, Kiper G, Dede MİC (2023) Gravity compensation of a 2R1T mechanism with remote center of motion for minimally invasive transnasal surgery applications. *Robotica*, 41(3):807-820 (Indexed in SCIE)

Özen G, Kiper G, Korkmaz K (2022) Design of demountable reciprocal frames with new geometric properties. *J IASS*, 63(3):203-212 (Indexed in ESCI)

Maral O, Korkmaz K, Kiper G (2022) A novel design method of deployable semi-regular tessellated surfaces with planospherical units. *J IASS*. 63(3):189-202 (Indexed in ESCI)

Kiper G, Korkmaz K, Gür Ş, Yar Uncu M, Maden F, Akgün Y, Karagöz C (2022) Loop based classification of planar scissor linkages. *Sādhanā*, 47:12 (Indexed in SCIE)

Doğan Kumtepe E, Kiper G (2021) Design, prototyping and tests of a rollable ramp for temporary use. *Sādhanā*, 46:234 (Indexed in SCIE)

Boztaş S, Kiper G (2021) Enumeration and instantaneous mobility analysis of a class of 3-UPU parallel manipulators with equilateral triangular platforms. *Robotica*, 40(5):1538-1569 (Indexed in SCIE)

Dede MİC, Kiper G, Ayav T, Özdemirel B, Tatlıcioğlu E, Hanalioğlu Ş, Işııkay İ, Berker M (2021) Human-robot interfaces of the NeuRoboScope: a minimally invasive endoscopic pituitary tumor surgery robotic assistance system. *J Med Devices*, 15(1):011106 (Indexed in SCIE)

Yaşır A, Kiper G, Dede MİC (2020) Kinematic design of a non-parasitic 2R1T parallel mechanism with remote center of motion to be used in minimally invasive surgery applications. *Mech Mach Theory*, 153:104013 (Indexed in SCIE)

Gür Ş, Korkmaz K, Kiper G (2019) Design of anti-parallelogram loop assemblies. *J IASS*, 60(3):232-240 (Indexed in ESCI)

Maden F, Akgün Y, Kiper G, Gür Ş, Yar M, Korkmaz K (2019) A critical review on classification and terminology of scissor structures. *J IASS*, 60(1):47-64 (Indexed in ESCI)

Atarer F, Korkmaz K, Kiper G (2017) Design alternatives of network of Altmann linkages. *Int J Comput Methods Exp Meas*, 5(4):495-503 (Indexed in Scopus)

Yar M, Korkmaz K, Kiper G, Maden F, Akgün Y, Aktaş E (2017) A novel planar scissor structure transforming between concave and convex configurations. *Int J Comput Methods Exp Meas*, 5(4):442-450 (Indexed in Scopus)

Kiper G, Dede MİC, Maaroo O, Özkahya M (2017) Function generation with two loop mechanisms using decomposition and correction method. *Mech Mach Theory*, 110:16-26 (Indexed in SCIE)

Uzunoğlu E, Dede MİC, Kiper G (2016) Trajectory planning for a planar macro-micro manipulator of a laser-cutting machine. *Ind Robot*, 43(5):513-523 (Indexed in SCIE)

Kiper G, Bilginçan T (2015) Function generation synthesis of spherical 5R mechanism with regional spacing and Chebyshev approximation. *Mech Mach Theory*, 90:37-46 (Indexed in SCIE)

Alizade RI, Kiper G, Bağdadıoğlu B, Dede MİC (2014) Function synthesis of Bennett 6R mechanisms using Chebyshev approximation, *Mech Mach Theory*, 81:62-78 (Indexed in SCIE)

Kiper G, Söylemez E (2013) Polyhedral linkages obtained as assemblies of planar link groups. *Front Mech Eng*, 8(1):3-9 (Indexed in SCIE)

Kiper G, Bilginçan T, Dede MİC (2013) Function generation synthesis of planar 5R mechanism. *Problems of Mechanics*, 51(2):28-31

Kiper G, Söylemez E (2012) Homothetic Jitterbug-like linkages. *Mech Mach Theory*, 51:145-158 (Indexed in SCIE)

Akgün Y, Gantes CJ, Kalochairetis KE, Kiper G (2010) A novel concept of convertible roofs with high transformability consisting of planar scissor-hinge structures, *Eng Struct*, 32(9):2873-2883 (Indexed in SCIE)

Kiper G, Söylemez E, Kişisel AUÖ (2008) A family of deployable polygons and polyhedra. *Mech Mach Theory*, 43(5):627-640 (Indexed in SCIE)

Book Chapters

- Kiper G, Söylemez E (2021) 10. kuruluş yıldönümünde Makina Teorisi Derneği. In: Hüseyinoğlu M (Ed) 20. Ulusal Makina Teorisi Sempozyumu. Makina Teorisi Derneği, vi-xii
- Akgün Y, Maden F, Gür Ş, Kiper G, Korkmaz K, Aktaş E, Yar Uncu M (2020) Scissor linkages in the design of adaptive morphologies. In: Schumacher M, Vogt MM, Krumme LAC (Ed) New Move: Architecture in Motion - New Dynamic Components and Elements, Birkhäuser Verlag, 98-101
- Akgün Y, Maden F, Gür Ş, Kiper G, Korkmaz K, Aktaş E, Yar Uncu M (2020) Scher engestänge als Elemente adaptiver Morphologien. In: Schumacher M, Vogt MM, Krumme LAC (Ed) New Move: Architektur in Bewegung - Neue dynamische Komponenten und Bauteile, Birkhäuser Verlag, 98-101

International Conference Papers

- Kiper G (2024) Two novel formulations for the optimum design of rack-and-pinion steering mechanisms. To appear in Tuleshov A, Jormatov A, Ceccarelli M (ed) IFToMM Asian Mechanisms and Machine Science Conference (ASIAN MMS 2024), Springer
- Kiper G, İnanç E (2024) Kinematic design of a novel finger exoskeleton mechanism for rehabilitation exercises. To appear in Lenarcic J, Husty M (ed) International Symposium on Advances in Robot Kinematics (ARK2024), Springer
- Kiper G (2024) A historical review of polyhedral linkages. In: Ceccarelli M, Aslan Seyhan I. (Ed) Explorations in the History and Heritage of Machines and Mechanisms - HMM 2024, Springer, 227-242
- Söylemez E, Kiper G (2024) Four-bar function generation using Excel solver. In: Okada, M. (Ed) Advances in Mechanism and Machine Science - IFToMM WC 2023, Springer, 208-218
- Yılmaz T, Kiper G (2023) Design and balancing of a novel 2R1T manipulator with remote center of motion. In: Laribi MA, Nelson CA, Ceccarelli M, Zegloul S (Ed), New Advances in Mechanisms, Transmissions and Applications: Proceedings of the Sixth MeTrApp Conference 2023, Springer, 180-188
- Cebeci Y, Demirel M, Kiper G (2023) A critical review of deployable truss masts and proposal of a new mast: HiDAM. In: Karakoc TH, Clainche SL, Chen X, Dalkiran A, Ercan AH (Ed), New Technologies and Developments in Unmanned Systems. ISUDEF 2022. Sustainable Aviation, Springer, 181-186
- Paksoy E, Dede MİC, Kiper G (2022) Experimental compliance matrix derivation for enhancing trajectory tracking of a 2-dof high-accelerated over-constrained mechanism. In: Khang NV, Quang Hoang N, Ceccarelli M (Ed), Advances in Asian Mechanism and Machine Science: Proceedings of IFToMM Asian MMS 2021, Springer, 354-362
- Kiper G, Söylemez E (2022) A sustainable association case study: IFToMM member organization Turkey. In: Quaglia G, Gasparetto A, Petuya V, Carbone G (Ed) Proceedings of I4SDG Workshop 2021. I4SDG 2021, Springer, 608-615
- Sekendiz MV, Görgülü İ, Karabulut MG, Kiper G, Dede MİC (2021) Manipulator design for a haptic system with improved performance. In: Sen D, Mohan S, Ananthasuresh G (Ed) Mechanism and Machine Science: Select Proceedings of Asian MMS 2018, Springer, 15-28
- Atarer F, Kazanasmaz T, Korkmaz K, Kiper G (2020) The architectural application of Altmann linkage as a light shelf. In: Engin D, Kızılörenli E (Ed) Proc. ATI International Symposium on Architecture, Technology, Innovation 2020, Yaşar Üniversitesi Yayınları, 170-182
- Kiper G, Görgülü İ, Küçüköğlü SF (2020) Function generation synthesis of planar slider-crank linkages for given 3 positions and a dead-center position. In: Pisla D, Corves B, Vaida C (Ed) New Trends in Mechanism Science: EuCoMeS, Springer, 41-47
- Uzunoğlu E, Özkahya M, Paksoy E, Taner B, Dede MIC, Kiper G (2020) Conceptual design of 2-dof planar high-speed industrial parallel manipulator. In: Wang D, Petuya V, Chen Y, Yu S (Ed), Recent Advances in Mechanisms, Transmissions and Applications: Proceedings of the Fifth MeTrApp Conference 2019, Springer, 344-353
- Kiper G, Erez M (2020) Function generation synthesis with planar 4-bar linkage as a mixed problem of correlation of crank angles and dead-center design. In: Wang D, Petuya V, Chen Y, Yu S (Ed), Recent Advances in Mechanisms, Transmissions and Applications: Proceedings of the Fifth MeTrApp Conference 2019, Springer, 42-47
- Kiper G, Söylemez E (2019) Kinematic synthesis of planar 4-bar path generators for finite line positions. In: Uhl T (Ed), Advances in Mechanism and Machine Science: Proceedings of the 15th IFToMM World Congress on Mechanism and Machine Science, Springer, 1365-1371
- Yaşır A, Kiper G, Dede MIC, Van der Wijk V (2019) Static force balancing of a 2R1T parallel manipulator with remote center of motion. In: Uhl T (Ed), Advances in Mechanism and Machine Science: Proceedings of the 15th IFToMM World Congress on Mechanism and Machine Science, Springer, 3219-3226
- Gür Ş, Karagöz C, Kiper G, Korkmaz K (2019) Synthesis of scalable planar scissor linkages with anti-parallelogram loops. In: Corves B, Wenger P, Hüsing M (Eds), EuCoMeS 2018: Proceedings of the 7th European Conference on Mechanism Science, Springer, 417-424
- Görgülü İ, Kiper G, Dede MİC (2019) A critical review of unpowered performance metrics of impedance-type haptic devices. In: Corves B, Wenger P, Hüsing M (Eds), EuCoMeS 2018: Proceedings of the 7th European Conference on Mechanism Science, Springer, 129-136
- Jovichikj R, Yaşır A, Kiper G (2018) Reconfigurable deployable umbrella canopies. In: Herder JL, Van der Wijk V (Eds), 2018 International Conference on Reconfigurable Mechanisms & Robots (ReMaR 2018), IEEE, DOI: 10.1109/REMAR.2018.8449832
- Demirel M, Carbone G, Ceccarelli M, Kiper G (2018) Design and simulation of a novel hybrid leg mechanism for walking machines. In: Doroftei I, Oprisan C, Pisla D, Lovasz EC (Eds), New Advances in Mechanism and Machine Science:

- Proceedings of the 12th IFToMM International Symposium on Science of Mechanisms and Machines (SYROM 2017), Springer, 283-290
- Yaşır A, Kiper G (2018) Structural synthesis of 2R1T type mechanisms for minimally invasive surgery applications. In: Dede MİC, İtik M, Lovasz EC, Kiper G (Eds), Mechanisms, Transmissions and Applications: Proceedings of the Fourth MeTrApp Conference 2017, Springer, 31-38
- Tetik H, Kiper G (2018) A geometrical approach for the singularity analysis of a 3-RRS parallel manipulator. In: Zeghloul S, Romdhane L, Laribi MA (Eds), Computational Kinematics: Proceedings of the 7th International Workshop on Computational Kinematics that was held at Futuroscope-Poitiers, France, in May 2017, Springer, 349-356
- Gür Ş, Korkmaz K, Kiper G (2017) Radially expandable ring-like structure with antiparallelogram loops. In: Proceedings of the Second International Symposium of Mechanism and Machine Science (ISMMS-2017), Baku, Azerbaijan, September 11-14, 2017, 150-155
- Kiper G (2017) Function generation of a Watt II type planar mechanism with prismatic output using decomposition and correction method. In: Proceedings of the Second International Symposium of Mechanism and Machine Science (ISMMS-2017), Baku, Azerbaijan, September 11-14, 2017, 137-142
- Eraz T, Kiper G (2017) Design of a cable-driven four-bar mechanism for arm rehabilitation. In: Wenger P, Flores P (Eds), New Trends in Mechanism and Machine Science - Theory and Industrial Applications, Springer, 609-617
- Kiper G, Akbalçık A, Şen ZB (2017) Path generation synthesis of planar double-slider linkages via the elliptic coupler curve. In: Wenger P, Flores P (Eds), New Trends in Mechanism and Machine Science - Theory and Industrial Applications, Springer, 581-588
- Maarouf OW, Dede MİC, Kiper G (2017) Alternating error effects on decomposition method in function generation synthesis. In: Wenger P, Flores P (Eds.), New Trends in Mechanism and Machine Science - Theory and Industrial Applications, Springer, 293-301
- Patel D, Kalla R, Tetik H, Kiper G, Bandyopadhyay S (2017). Computing the safe working zone of a 3-RRS parallel manipulator. In: Wenger P, Flores P (Eds.), New Trends in Mechanism and Machine Science - Theory and Industrial Applications, Springer, 113-120
- Dede MİC, Kiper G, Uzunoğlu E (2016) A macro-micro mechanism design for laser cutting process. In: Proc. 17th International Conference on Machine Design and Production (CD), Bursa, Turkey, July 12-15, 2016
- Tetik H, Kalla R, Kiper G, Bandyopadhyay S (2016) Position kinematics of a 3-RRS parallel manipulator. In: Parenti-Castelli V, Schiehlen W (Eds.), ROMANSY 21 – Robot Design, Dynamics and Control, Springer, 65-72
- Kiper G, Dede MİC, Uzunoğlu E, Mastar E (2015) Use of hidden robot concept for calibration of an over-constrained mechanism. In: 14th International Federation for the Promotion of Mechanism and Machine Science World Congress 2015, Taipei: Curran Associates, Vol. 5, 2822-2826
- Uzunoğlu E, Dede MİC, Kiper G (2015) Trajectory planning for a redundant planar laser-cutting machine with macro-micro manipulation. In: 14th International Federation for the Promotion of Mechanism and Machine Science World Congress 2015, Taipei: Curran Associates, Vol. 3, 1477-1781
- Dede MİC, Kiper G (2015) Mechanism design for haptic handwriting assistance device. In: Corves B, Lovasz E-C, Hüsing M (Eds.), Mechanisms, Transmissions and Applications - Proceedings of the Third MeTrApp Conference 2015, Springer, 271-278
- Kiper G (2015) Motion synthesis of a planar Watt II type six-bar mechanism with two end-effectors. In: Corves B, Lovasz EC, Hüsing M (Eds.), Mechanisms, Transmissions and Applications - Proceedings of the Third MeTrApp Conference 2015, Springer, 89-97
- Kiper G, Bağdadioğlu B (2015) Function generation synthesis with a 2-dof overconstrained double-spherical 7R mechanism using the method of decomposition and least squares approximation. In: Flores P, Viadero F (Eds.), New Trends in Mechanism and Machine Science: From Fundamentals to Industrial Applications, Springer, 175-183
- Kiper G, Gürcü F, Korkmaz K, Söylemez E (2015) Kinematic design of a reconfigurable deployable canopy. In: Flores P, Viadero F (Eds.), New Trends in Mechanism and Machine Science: From Fundamentals to Industrial Applications, Springer, 167-174
- Dede MİC, Gezgin E, Kiper G, Mastar E, Sığırmaç T, Uzunoğlu E, Design and analysis of a parallel mechanism for kinematically redundant hybrid planar laser cutting machine. In: Akkök M, Erden A, Kılıç SE, Konukseven Eİ (Eds.), 16th International Conference on Machine Design and Production Conference Proceedings, vol 2, June 30-July 3 2014, İzmir, Turkey, 810-822
- Kiper G, Bağdadioğlu B, Bilginçan T (2014) Function synthesis of the planar 5R mechanism using least squares approximation. In: Lenarcic J, Khatib O (Eds.), Advances in Robot Kinematics, Springer, 69-76
- Uzunoğlu E, Dede MİC, Kiper G, Mastar E, Sığırmaç T (2014) Trajectory planning of redundant planar mechanisms for reducing task completion duration. In: Ceccarelli M, Glazunov VA (Eds.), Advances on Theory and Practice of Robots and Manipulators: Proceedings of Romansy 2014 XX CISM-IFTToMM Symposium on Theory and Practice of Robots and Manipulators, Springer, 215-223
- Alizade RI, Kiper G, Dede MİC, Uzunoğlu E (2014) Derivation of input-output relationship for the Bennett 6R linkages based on the method of decomposition. In: Petuya V, Pinto C, Lovasz E-C (Eds.), New Advances in Mechanisms, Transmissions and Applications: Proceedings of the Second Conference MeTrApp 2013, Springer, 225-231
- Gürcü F, Korkmaz K, Kiper G (2013) Design of a reconfigurable deployable structure. In: Proc. Transformables 2013, Seville, Spain, September 1-4, 2013, 145-149

- Huang C, Huang WC, Kiper G (2014) A closed-form solution of spatial sliders for rigid-body guidance. In: Federico T, Perez Gracia A (Eds.), Computational Kinematics – Proceedings of the 6th International Workshop on Computational Kinematics (CK2013), Springer, 359-367
- Kiper G, Huang C, Söylemez E (2012) Numerical analysis of planar cam follower mechanisms. In: Proc. 2. IFToMM Asian Conference on Mechanism and Machine Science (CD), Tokyo, Japan, November 7-10, 2012, 335-342
- Kiper G, Söylemez E (2012) Homohedral and tangential polyhedral linkages. In: Viadero F, Ceccarelli M (Eds.), New Trends in Mechanism and Machine Science: Theory and Applications in Engineering, Springer, 383-390
- Kiper G, Yörükoğlu S, Söylemez E (2012) Servo input algorithms of a hybrid servo mechanical press. In: Proc. 15. International Conference on Machine Design and Production (CD), Pamukkale, Turkey, June 19-22, 2012
- Kiper G, Söylemez E (2012) Kinematic analysis of a 3-UPU parallel manipulator using exponential rotation matrices. In: Bandyopadhyay S, Kumar GS, Ramu P (Eds.), Machines and Mechanisms, New Delhi: Narosa, 123-131
- Kiper G, Söylemez E (2011) Some new overconstrained linkages obtained from homothetic Jitterbug-like linkages. In: Proc. 13th IFToMM World Congress, Guanajuato, Mexico, June 19-25, 2011, Vol. 1, 88-93
- Kiper G, Söylemez E (2011) Modified Wren platforms. In: Proc. 13th IFToMM World Congress, Guanajuato, Mexico, June 19-25, 2011, Vol. 1, 1183-1187
- Kiper G, Söylemez E (2010) Irregular polygonal and polyhedral linkages comprising scissor and angulated elements. In: Proc. 1st IFToMM Asian Conference on Mechanism and Machine Science (CD), Taipei (Taiwan), October 21-25, 2010, 455-459
- Kiper G, Söylemez E (2010) Obtaining new linkages from Jitterbug-like polyhedral linkages. In: Alizade R (Ed.), AzC IFToMM 2010 International Symposium of Mechanism and Machine Science, 137-143
- Kiper G (2010) Some properties of Jitterbug-like polyhedral linkages. In: Pisla D, Ceccarelli M, Husty M, (Eds.), New Trends in Mechanism Science: Analysis and Design, Springer, 137-145
- Kiper G, Söylemez E (2009) Deployable space structures. In: Kurnaz S, İnce F, Onbaşıoğlu S, Baştürk S (Eds.), Proc. 4th International Conference on Recent Advances in Space Technologies, İstanbul (Türkiye), June 11-13, 2009, 131-138
- Kiper G, Söylemez E (2009) Regular polygonal and regular spherical polyhedral linkages comprising Bennett loops. In: Kecskeméthy A, Müller A (Eds.), Computational Kinematics, Springer, 249-256
- Kiper G (2008) Fulleroid-like linkages. In: Ceccarelli M (Ed.), Proceedings of EUCOMES 08, Springer, 423-430
- Kiper G, Söylemez E, Kişisel AUÖ (2007) Polyhedral linkages synthesized using Cardan motion along radial axes. In: Proc. 12th IFToMM World Congress (online), Besançon, France, June 18-21, 2007, 471-477

National Conference Papers

- Arslan G, Kiper G (2023) Uçak flap mekanizmaları için kinetostatik tasarım yöntemi geliştirilmesi. 21. Ulusal Makina Teorisi Sempozyumu (UMTS 2023), Edirne, September 13-15, 2023
- Karaağaç ÖI, Yılmaz S, Ocak T, Ercanlı U, Şahin AM, Mişin Ş, Kiper G (2023) Kişiyi özgü parmak protez setinin tasarımı 3 boyutlu baskı tekniği ile üretimi ve validasyonu. 21. Ulusal Makina Teorisi Sempozyumu (UMTS 2023), Edirne, September 13-15, 2023
- Görgülü İ, Dede MİC, Kiper G (2023) Ameliyat robotları için seri elastik eyleyici tasarımı ve testleri. 21. Ulusal Makina Teorisi Sempozyumu (UMTS 2023), Edirne, September 13-15, 2023
- Yılmaz T, Kiper G (2023) Uzak hareket merkezli yeni bir manipülatörün prototip imalatı. 21. Ulusal Makina Teorisi Sempozyumu (UMTS 2023), Edirne, September 13-15, 2023
- Kıpcak F, İnanç E, Özkan M, Öztürk RC, Güleç ET, Kiper G (2021) Rehabilitasyon egzersizleri için bir parmak dış iskelet mekanizması. 20. Ulusal Makina Teorisi Sempozyumu (UMTS 2021), Diyarbakır, September 15-17, 2021, 30-38
- Kadak T, Kiper G (2021) Krank açılıarı verilen üç konum ve bir ölü konum için dört-çubuk mekanizmasının işlev sentezi. 20. Ulusal Makina Teorisi Sempozyumu (UMTS 2021), Diyarbakır, September 15-17, 2021, 24-29
- Cebeci Y, Demirel M, Kiper G (2021) Katlanabilir mafsallı kafes direklerin katlanma oranlarını etkileyen faktörlerin incelenmesi ve yeni bir tasarım yönteminin araştırılması. 20. Ulusal Makina Teorisi Sempozyumu (UMTS 2021), Diyarbakır, September 15-17, 2021, 17-23
- Kiper G (2021) Uzaktan eğitimin kısa tarihi ve çevrimiçi makina teorisi eğitimi. 20. Ulusal Makina Teorisi Sempozyumu (UMTS 2021), Diyarbakır, September 15-17, 2021, 7-16
- Uzunoğlu E, Özkahya M, Paksoy E, Taner B, Dede MİC, Kiper G (2019) Yüksek ivmeli paralel robotların konumlama hassasiyetinin artırılmasına yönelik yöntemlerin araştırılması. 19. Ulusal Makina Teorisi Sempozyumu (UMTS 2019), İskenderun, September 4-6, 2019, 345-352
- Kiper G, Uzer CC, Karabey M (2019) Bir ekskavator kol mekanizması için kineostatik analiz ve kol silindiri tasarımı. 19. Ulusal Makina Teorisi Sempozyumu (UMTS 2019), İskenderun, September 4-6, 2019, 199-204
- Görgülü İ, Karabulut MG, Sekendiz V, Kiper G, Dede MİC (2019) Haptik cihaz için iyileştirilmiş performansla sahip robot tasarımı. 2019 Türkiye Robotbilim Konferansı (TORK 2019), İstanbul, June 26-28, 2019
- Ayıt O, Yaşır A, Vardarlı E, Kiper G, Dede MİC (2018) Bir ameliyat robotunun denetimi için basitleştirilmiş dinamik modeli. Otomatik Kontrol Ulusal Toplantısı (TOK 2018), Kayseri, September 12-14, 2018, 265-270
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- Tetik H, Kiper G (2017) 3-RRS paralel manipülatörün dinamik analizi. 18. Ulusal Makina Teorisi Sempozyumu (UMTS 2017), Trabzon, July 5-7, 2017, 245-251

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- Kiper G, Bilginçan T (2015) İki serbestlik dereceli mekanizmalarla işlev sentezinde tasarım noktalarının eşit ve Çebişev aralıklandırması ile seçiminin karşılaştırılması. TrC IFToMM Symposium on Theory of Machines and Mechanisms (TrISToMM), İzmir, June 14-17, 2015, 703-707
- Kiper G, Bağdadioğlu B, Alizade Rİ (2015) Düzlemsel iki serbestlik dereceli mekanizmaların en küçük kareler toplamı yöntemi ile işlev sentezi. TrC IFToMM Symposium on Theory of Machines and Mechanisms (TrISToMM), İzmir, June 14-17, 2015, 694-702
- Kiper G, Dede MİC, Uzunoğlu E, Mastar E (2015) Bakışsımsız bir düzlemsel 5R eyleyicisinin bağlama açısına göre tasarımı. TrC IFToMM Symposium on Theory of Machines and Mechanisms (TrISToMM), İzmir, June 14-17, 2015, 687-693
- Van der Wijk V, Kiper G, Yaşır A (2015) Synthesis and experiments of inherently balanced umbrella canopy designs, TrC IFToMM Symposium on Theory of Machines and Mechanisms (TrISToMM), İzmir, June 14-17, 2015, 247-254
- Kiper G, Dede MİC, Uzunoğlu E, Mastar E, Sığirtmaç T (2014) Aşırı kısıtlı bir mekanizmanın kalibrasyonunda saklı robot kavramının uygulaması. Türkiye Otonom Robotlar Konferansı (TORK), Ankara, November 6-7, 2014
- Dede MİC, Gezgin E, Kiper G, Mastar E, Sığirtmaç T, Uzunoğlu E (2013) Kinematik olarak artıksıl düzlemsel lazer kesme makinaları üzerine. 16. Ulusal Makina Teorisi Sempozyumu (UMTS 2013), Erzurum, September 12-13, 2013, 76-83
- Kiper G, Söylemez E (2011) Düzlemsel ve uzaysal fazla kısıtlı mekanizmalar için bir tasarım yöntemi. 15. Ulusal Makina Teorisi Sempozyumu (UMTS 2011), Niğde, June 16-18, 2011, 431-437
- Kiper G (2009) Yürüyen makinaların bacalarında Çebişev yaklaşık doğrusal hareket mekanizmalarının kullanılması üzerine. 14. Ulusal Makina Teorisi Sempozyumu (UMTS 2009), Güzelyurt (KKTC), July 2-4, 2009, 361-369
- Söylemez E, Kiper G, Tarçın S (2009) Binek otomobiller için ön cam silecek mekanizması sentezi ve analizi. 14. Ulusal Makina Teorisi Sempozyumu (UMTS 2009), Güzelyurt (KKTC), July 2-4, 2009, 449-455
- Akgün Y, Kiper G, Can FCC (2009) Makas-benzeri elemanlar ile oluşturulmuş şekli değişebilen bir strüktür önerisi: sistemin kinematik analizi. 14. Ulusal Makina Teorisi Sempozyumu (UMTS 2009), Güzelyurt (KKTC), July 2-4, 2009, 427-433
- Kiper G, Söylemez E, Kişisel AUÖ (2007) Çok yüzlü (polihedral) mekanizmalarında Kardan hareketinin önemi. 13. Ulusal Makina Teorisi Sempozyumu (UMTS 2007), Sivas, June 7-9, 2007, 187-193

Patents

- Kiper G, Demirel M, Cebeci Y (2019) Katlanabilir Direk Yapısı, TR 2019 22860 A3
- Kiper G, Yaşır A, Dede MİC (2017) Uzak Dönme Merkezli Paralel Manipülatör, TR 2017 22148 B
- Giuseppe C, Demirel M, Kiper G, Ceccarelli M (2017) Gamba Robotica a Struttura Ibrida (Robotic Leg With Hybrid Structure), n. 102017000124364 A1
- Kiper G (2016) Katlanabilir Kafes Yapı, TR 2016 19595 B
- Kiper G (2015) Stent, TPE 2015 07107 B
- Atarer F, Korkmaz K, Kiper G (2014) Biçim Değiştirebilen Strüktür Sistemi, TPE 2014 10892 B
- Sığirtmaç T, Kiper G, Dede MİC (2014) Kinematically Redundant Planar Laser Processing Machine, WO2014096952A3
- Dede MİC, Kiper G (2013) Konumlama Mekanizması, TR 2013 05692 B
- Sığirtmaç T, Kiper G, Dede MİC (2012) Düzlemsel Yüzeyde Çalışan Lazer İşleme Makinası, TR 2012 15004 B
- Yörükoğlu S, Kiper G (2012) Servo Pres Hareket Denetim Sistemi, TR 2012 12006 B

Citation Metrics (as of April 15, 2024)

Google Scholar	Publications: 120 ; times cited 789 ; h index: 14
Scopus	Publications: 62 ; times cited 413 ; h index: 10
Web of Science	Publications: 38 ; times cited 282 ; h index: 9

Refereed Journals

- Advances in Mechanical Engineering (SCIE)
- Applied Mathematical Modelling (SCIE)
- Asia-Pacific Journal of Science and Technology (Scopus)
- ASCE Journal of Structural Engineering (SCIE)
- ASME Journal of Mechanical Design (SCIE)
- ASME Journal of Mechanisms and Robotics (SCIE)
- Automation in Construction (SCIE)
- Chinese Journal of Mechanical Engineering (SCIE)
- Computer Methods and Programs in Biomedicine Update (SCIE)
- Engineering Structures (SCIE)
- IEEE Robotics and Automation Letters (SCIE)
- Dokuz Eylül Üniversitesi Mühendislik Fakültesi Fen ve Mühendislik Dergisi (ULAKBİM)
- International Journal of Aerospace Engineering (SCIE)
- International Journal of Mechanisms and Robotic Systems (Academic OneFile)
- International Journal of Robotics and Automation (SCIE)
- Journal of the Faculty of Engineering and Architecture of Gazi University (SCIE)

Meccanica (SCIE)
Mechanical Sciences (SCIE)
Mechanics & Industry (SCIE)
Mechanics Based Design of Structures and Machines (SCIE)
Mechanism and Machine Theory (SCIE)
Proceedings of the Royal Society A – Mathematical, Physical and Engineering Sciences (SCIE)
Robotica (SCIE)
Sadhana (SCIE)
Scientific Research Communications (Crossref)
Sigma Journal of Engineering and Natural Sciences (ESCI)
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi (ULAKBİM)

PROJECTS

- Oct. 2024 – Oct. 2027 Twinning IzTech in Robotics Manufacturing Systems (TWIN-IT-ROMANS) – HORIZON-WIDERA-101160215 – Project Coordinator: Dr. Can Dede, IzTech Researchers: Dr. Benay Uzer, Dr. Büşra Karaş, Dr. Gökhan Kiper, Dr. Halil Tetik
- Oct. 2023 – Oct. 2025 Deep Learning Based Control of Endoscope Guiding Robot to be Used in Endonasal Surgeries (CleverScope) – TÜBİTAK 1001-123M353 – Project Leader: Dr. M. İ. Can Dede, Project Partners: Dr. Gökhan Kiper, Dr. Yalın Baştanlar, Dr. Şenay Mihçin, Dr. Omar Maarof, Dr. Mustafa Berker, Dr. Şahin Hanalioğlu, Dr. İlkyay Işıkyay
- April 2023 – Oct. 2024 Design and Prototyping of Deployable Tent Mechanisms for Temporary Shelters – TÜBİTAK-1005-123M090 – Project Leader: Dr. Gökhan Kiper, Project Partners: Murat Demirel, Tarık Kadam
- Mar. 2023 – Sep. 2024 Development of Transformable Disaster Relief Shelters Using Scissor Linkages and Foldable Plates – Yaşar Uni. BAP134 – Project Leader: Dr. Feray Maden, Researchers: Dr. Yenil Akgün, Dr. Özgür Kilit, Consultants: Dr. Mustafa Gündüzalp, Dr. Koray Korkmaz, Dr. Gökhan Kiper
- Aug. 2022 – Nov. 2024 Visual Haptic Auditory Ophthalmic Surgical Simulator - Hapt-OfTVR – TÜBİTAK-1501-3220308 – Project Leaders: İnfotron, Asya Biyomedikal, Consultants: Dr. M. İ. Can Dede, Dr. Gökhan Kiper
- Feb. 2021 – Nov. 2022 Design of Deployable Mast Mechanisms with High Deployment Ratio for Positioning of Satellite Components – TÜBİTAK-1005-120M812 – Project Leader: Dr. Gökhan Kiper, Project Partners: Yunus Cebeci, Murat Demirel
- Oct. 2020 – Oct. 2023 Design of an Inherently Balanced Robotic Manipulator with Remote Center of Motion to be used as an Endoscope Holder for Endonasal Skull Base Surgery (BalanScope) – TÜBİTAK-1001-219M483 – Project Leader: Dr. Gökhan Kiper, Project Partners: Dr. M. İ. Can Dede, Dr. H. Seçil Artem, Dr. Levent Aydın, Dr. Volkert van der Wijk, Dr. Mustafa Berker, Dr. Şahin Hanalioğlu, Dr. İlkyay Işıkyay
- Mar. 2019 – Mar. 2020 Balancing of a 2R1T Parallel Mechanism for Minimally Invasive Transnasal Brain Surgery Application – BAP İYTE0212 – Project Leader: Dr. Gökhan Kiper, Project Partner: Ataol Aldanmaz
- Dec. 2018 – Oct. 2019 Analysis and Design of Loader Mechanisms for Construction Machines – İZTEKGEB-54059 – Partner Company: Mecalac İş Makineleri
- Feb. 2018 – Aug. 2018 Excavator Arm Cylinder Design – İZTEKGEB-49905 – Partner Company: Mecalac İş Makineleri
- Jan. 2018 – Jan. 2019 3D Printing Mechanisms – BAP 2017G_İYTE69 – Project Leader: Dr. Gökhan Kiper, Project Partners: Dr. M. İ. Can Dede, Barış Taner, Cevahir Karagöz, Murat Demirel
- Nov. 2017 – April 2019 Design of a Haptic System with Improved Performance via Developing its New Sub-Systems (HISS) – TÜBİTAK-1005-117M405 – Project Leader: Dr. M. İ. Can Dede, Project Partners: Dr. Gökhan Kiper, M. Görkem Karabulut, İbrahimcan Görgülü, M. Veysel Sekendiz, Murat Demirel
- Oct. 2017 – June 2020 Methodologies for Increasing the Positioning Accuracy of High-Acceleration Parallel Robots Used in Industrial Applications – TÜBİTAK-1001-116M272 – Project Leader: Dr. Gökhan Kiper, Project Partners: Dr. M. İ. Can Dede, Dr. Enver Tatlıcioğlu, Dr. Volkert van der Wijk, Emre Uzunoğlu, Barış Taner, Merve Özkahya, Erkan Paksoy, Kemal Ekmekçi, İbrahimcan Görgülü
- Dec. 2016 – Jan. 2018 Design and Prototyping of a 630 Ton Sheet Metal Forming Press with Large Stroke and Link Drive Mechanism – İZTEKGEB-16121 – Partner Company: Dirinler Makina
- Dec. 2016 – Dec. 2017 Prototyping and Testing Hybrid Cable-Driven Parallel Mechanisms for Walking Machines – BAP 2016G_İYTE42 – Project Leader: Dr. Gökhan Kiper, Project Partner: Murat Demirel
- Aug. 2016 – Nov. 2016 Design and Production of Deployable and Portable Ramp – TÜBİTAK-1512-2150530
Project Leader: Elvan Doğan Kumtepe, Project Consultant: Dr. Gökhan Kiper
- Feb. 2016 – Feb. 2020 Optimization Driven Architectural Design of Structures (OptArch) – H2020-MSCA-RISE-2015-689983 – Project Coordinator: Dr. Nikos Lagaros, IzTech Coordinator: Dr. Koray Korkmaz, Project Researchers in İzmir: Dr. Gökhan Kiper, Dr. Engin Aktaş, Dr. Yenil Akgün, Dr. Feray Maden, Şebnem Gür, Müjde Uncu, Cevahir Karagöz, Kutay Yüçetürk, Duhan Ölmez, Eriñç Yıldırım
- Jan. 2016 – July 2018 Robot Assisted Endoscope Control that can be Controlled by the Surgical Tools (NeuroScope) – TÜBİTAK-1003-115E725 / 115E726 – Project Leaders: Dr. Mustafa Berker, Dr. M. İ. Can Dede

- Project Partners: Dr. Gökhan Kiper, Dr. Enver Tatlıcıoğlu, Dr. Barbaros Özdemirel, Dr. Tolga Ayav, Dr. Nergiz Ercil Çağıltay, Dr. Şahin Hanalioğlu, Dr. İlkay Işııkay
- Oct. 2013 – Oct. 2014 Manufacturing of the Prototype and Tests of a Knotting Mechanism for a Turkish Knotted Carpet Weaving Machine – BAP 2013-İYTE-21 – Project Leader: Dr. Gökhan Kiper
- April 2013 – April 2014 Human-Machine Interface for Increasing Virtual Reality Feeling, Ministry of Science, Industry and Technology of Turkey – 0391.TGSD.2013 – Techno-Initiative Capital Support Program – Project Leader: Dr. M. İ. Can Dede, Project Partners: Dr. Gökhan Kiper, Dr. Tolga Ayav, Mustafa Ruhi Dede, Barış Taner
- Dec. 2012 – June 2014 Design of a Kinematically Redundant Planar Laser Cutting Machine – Joint SANTEZ Project: İYTE & Coşkunöz Metal Form, İzmir - 01668.STZ.2012-2 – Project Leader: Dr. M. İ. Can Dede, Project Partners: Dr. Gökhan Kiper, Dr. Erkin Gezgin, Dr. Tayfun Sığırtaç, Emre Uzunoğlu, Ercan Mastar, Hakan Demir, Şevki Önen
- Oct. 2010 – May 2011 Design of Automatic Beltless Ammunition Feeding Mechanism – Joint Project: METU & ASELSAN, Ankara – Project Leader: Dr. Eres Söylemez, Project Partner: Gökhan Kiper
- April 2008 – March 2009 Design and Simulation of Mechanisms in Automobiles – Joint Project: METU & OYAK-Renault, Ankara – Project Leader: Dr. Eres Söylemez, Project Partners: Gökhan Kiper, Mümin Özsipahi, Yusuf Duran, Serkan Tarçın
- Sept. 2003 – Jan. 2004 Design of a Rapid Prototyping Machine, Mechanical Engineering – METU, Ankara – Project Supervisor: Gökhan Özyurt, Project Partners: Gökhan Kiper, Gürkan Günç, Gökhan Kurnaz, Emir Kutluay, Koray Küçük
- 1998 – 1999 Industrial Product Recycling Conditions of Marble Treatment Waste Water by Flocculation Method, Mining Engineering – Dokuz Eylül University (DEU), İzmir – Project Supervisors: Dr. Ali Akar, Dr. Mustafa Pişgin, Abdullah Seyrankaya, Project Partners: Gökhan Kiper, Engin Toktaş

INVITED TALKS

- 8 January 2024 “Industrial and Medical Robot Technologies” online at Karabük University - Robot Teknolojileri Uygulama ve Araştırma Merkezi
- 7 July 2022 “Methodologies for Increasing the Positioning Accuracy of High-Acceleration Parallel Robots Used in Industrial Applications” during IFToMM Summer School on Mechanism Design for Applications in Mechatronic Systems (MDAMS 2022) at Kaunas University of Technology
- 22 October 2020 “Copyright mı, copywrong mu? Akademisyenler kendi ürettikleri yayınların telif hakkı konusunda ne kadar bilgili?” during Açık Erişim Haftası (AE2020) Açık Bilim Ekosistemi Paneli
- 22 June 2018 “A Classification of the Scissor Linkages Based on the Loop Assembly Method” during 4th IEEE/IFToMM International Conference on Reconfigurable Mechanisms & Robots (ReMaR 2018) at Delft University of Technology
- 5 May 2018 “Industrial and Medical Robot Technologies” during Teknoversite Days at Iskenderun Technical University

ORGANIZED EVENTS

- 29 Jan. - 2 Feb. 2024 KS2024 - Workshop on Analytical Synthesis of Mechanisms
Organizing Institutions: Fırat University, METU, IZTECH, MakTeD
Organizers: Dr. Eres Söylemez, Dr. Orhan Çakar, Dr. Gökhan Kiper, Dr. Murat Şen, Sertaç Emre Kara, Gökhan Kurnaz, Murat Demirel
- 13-15 September 2023 UMTS 2023 – Special Session on Medical Applications
Organizing Institutions: Trakya University, IZTECH
Organizers: Dr. Mustafa Arda, Dr. Gökhan Kiper, Dr. M. İ. Can Dede
- 6, 15-16 February 2023 KT2023 – Workshop on Design of Cam Mechanisms
Organizing Institutions: MakTeD, METU, IZTECH
Organizers: Dr. Eres Söylemez, Dr. Gökhan Kiper, Murat Demirel
- 7-11 February 2022 KS2022 - Workshop on Function Synthesis of Mechanisms
Organizing Institutions: MakTeD, METU, IZTECH
Organizers: Dr. Eres Söylemez, Dr. Gökhan Kiper, Murat Demirel
- 15-17 September 2021 UMTS 2021 – Special Session on Distance Education in Theory of Machines
Organizing Institutions: Dicle University, IZTECH
Organizers: Dr. Mesut Hüseyinoğlu, Dr. Gökhan Kiper
- 26-28 July 2021 ToRK2021 – 6. Turkish Robotics Conference
Organizing Institution: IZTECH
Organizers: Dr. M. İ. Can Dede, Dr. Gökhan Kiper
- 7-11 September 2020 KS2020 - Workshop on Graphical Methods in Kinematic Synthesis
Organizing Institutions: METU, IZTECH, MakTeD

20-21 November 2019	Organizers: Dr. Eres Söylemez, Dr. Gökhan Kiper, Dr. Ulaş Yaman, Murat Demirel Workshop on Methodologies for Increasing the Positioning Accuracy of High-Acceleration Parallel Robots Used in Industrial Applications Organizing Institutions: METU, IZTECH, MakTeD Organizers: Dr. Gökhan Kiper, Dr. M. İ. Can Dede, Dr. Eres Söylemez
4 September 2019	UMTS 2019 – Special Session on Positioning Accuracy of Parallel Manipulators Organizing Institutions: İskenderun Technical University & IZTECH Organizers: Dr. Çağlar Conker, Dr. Gökhan Kiper, Dr. M. İ. Can Dede
17-22 September 2018	MDMA 2018 - IFToMM Summer School on Mechanism Design for Medical Applications Organizing Institution: IZTECH & IFToMM TC for Linkages and Mechanical Controls Organizers: Dr. M. İ. Can Dede, Dr. Gökhan Kiper
3-5 July 2017	MeTrApp 2017 - The 4th Conference on Mechanisms, Transmissions and Applications Organizing Institution: KTU & IFToMM TC for Linkages and Mechanical Controls Organizers: Dr. Mehmet İtik, Dr. M. İ. Can Dede, Dr. Erwin-Christian Lovasz, Dr. Gökhan Kiper
14-17 June 2015	TrISToMM - TrC-IFToMM Symposium on Theory of Machines and Mechanisms Organizing Institution: IZTECH, MakTeD Organizers: Dr. Gökhan Kiper, Dr. M. İ. Can Dede
2-7 September 2013	KS2013 - Summer School on Kinematic Synthesis Organizing Institutions: IZTECH, MakTeD Organizer: Dr. Gökhan Kiper

COURSES TAUGHT at IZTECH

Spring 2013-20	ME242 Applied Mathematics for Engineers
Every Fall since 2012	ME331 Theory of Machines I
Every Spring since 2013	ME332 Theory of Machines II
Spring 2014-17-18-19-21-22-24	ME402 Engineering Design
Fall 2012-13	ME460 Introduction to Robot Technology
Spring 2016, Fall 2017-19	ME473 Dynamics of Machinery
Fall 2023	ME477 Introduction to Kinematic Synthesis of Planar Linkages
Fall 2013-14-16-18, Spring 2020-23	ME571 Kinematic Analysis of Mechanisms
Fall 2012-15-18, Spring 2023	ME572 Structural Design of Mechanisms
Fall 2014-15-16-20-21; Spring 2015-18-19-24	ME573 Deployable Structures
Fall 2017-19, Spring 2013-14-16-21-22	ME577 Kinematic Synthesis of Mechanisms

SUPERVISED COMPLETED THESES

July 2023	MSc Thesis by Tuğrul Yılmaz: Design, Production and Tests of an Inherently Balanced Mechanism to be Used as an Endoscope Holder for Endonasal Skull Base Surgery
July 2023	MSc Thesis by Barış Bağdadioğlu: Function Synthesis of 2-Loop and/or 2-DoF Mechanisms
December 2022	PhD Thesis by Talha Eraz: Geometric Properties of Coupler-Curve Equation of Planar Slider-Crank and Four-Bar Linkages
October 2022	MSc Thesis by Yunus Cebeci: Design of HiDAM: Highly Deployable Articulated Mast for Positioning of Satellite Components
July 2022	MSc Thesis by Tarık Kadak: Function Generation Synthesis of Planar Mechanisms as a Mixed Problem of Correlation of Crank Angles and Dead-Center Design
September 2021	MSc Thesis by Ataol Behram Aldanmaz: Gravity Compensation of a 2R1T Mechanism with Remote Center of Motion for Minimally Invasive Transnasal Surgery Applications
December 2020	MSc Thesis by Görkem Yıldız: Design of Deployable Structures Comprising Altmann Linkages
July 2019	MSc Thesis by Merve Özkahya: Design and Experimental Evaluation of a Dynamically Balanced Over-Constrained Planar 6R Parallel Manipulator
July 2018	MSc Thesis by Murat Demirel: Design of Hybrid Cable-Constrained Parallel Mechanisms for Walking Machines
July 2018	MSc Thesis by Cevahir Karagöz: Kinematic Design of Scissor Linkages
July 2018	MSc Thesis by Abdullah Yaşır: Design of a 2R1T Mechanism with Remote Center of Motion for Minimally Invasive Transnasal Surgery Applications
December 2017	MSc Thesis by Sercan Boztaş: Type Synthesis and Instantaneous Mobility Analysis of 3-UPU Parallel Manipulators
December 2017	MSc Thesis by Elvan Doğan Kumtepe: Design of a Deployable Structure to be Used as Temporary Ramp

July 2017	MSc Thesis by Radomir Jovichikj: Design Modification of a Front Window Mechanism for the Cabin of an Earth Moving Machine
July 2016	MSc Thesis by Talha Eraz: Modelling and Experimental Setup of a Cable Driven System
July 2016	MSc Thesis by Halil Tetik: Modelling and Control of a 3-RRS Parallel Manipulator

AWARDS, COMPETITIONS and SCHOLARSHIPS

November 2019	IFTToMM Fellowship
October 2017	IFTToMM Presidential Service Award for WG chairmanship in the IFTToMM Working Group 11 for Young Attraction during 2017
From 2016 to 2022	Mechanism and Machine Theory Award for Outstanding Contribution in Peer Review
October 2014	Best Application Paper Award in 5 th European Conference on Mechanism Science, Guimaraes Paper Title: Kinematic Design of a Reconfigurable Deployable Canopy
Summer 2010	The Council of Higher Education (YÖK) of Turkey Financial Support for Sabbatical during PhD
2006 – 2011	TÜBİTAK National Doctorate Scholarship Program
2004 – 2006	TÜBİTAK National Graduate Scholarship Program
2002 – 2004	TÜBİTAK Pure Sciences Scholarship Program - B
Summer 2002	Turkey Universities Sports Games, İstanbul Branch: Karate Do / Team: METU Karate Do Team / Trainer: Salih Kurt
Spring 1999	2 nd among several projects in Turkey – in The Scientific & Technological Research Council of Turkey (TUBITAK) 30 th Secondary School Level Project Competition, Ankara - Branch: Chemistry Project Title: Research of Industrial Product Recycling Conditions of Marble Treatment Waste Water by Flocculation Method

MEMBERSHIPS

2023 – 2023	White Club Center Sports Club (Member)
2022 –	İzmir Science High School Alumni Association (İzmir Fen Liseliler Derneği) (Founder Member)
2016 –	IFTToMM Technical Committee for Linkages and Mechanical Controls (Member)
2013 –	IFTToMM Technical Committee for Computational Kinematics (Member)
2011 –	Turkish Machine Theory Association (Makina Teorisi Derneği) (Founder Member)
2005 – 2008	METU Capoeira Club (Member)
2004 –	Turkish Chamber of Mechanical Engineers (TMMOB - MMO) (Member)
2002 – 2004	METU Mathematics Club (Member)
2000 – 2002	METU Karate Do Club (Member)

LANGUAGES

- English – Fluent
- German – Elementary

COMPUTER SKILLS

- Languages: Visual Basic, C++, Turbo Pascal
- CAD Programs: Catia, SolidWorks, AutoCAD, Pro-Engineer
- Others: Excel, Geogebra, Maple, MATLAB, Mathcad, Mathematica, ADAMS, Moodle, H5P

ACADEMIC INTERESTS

- Kinematic Analysis and Synthesis of Mechanisms
- Kinematic Design of Deployable Structures
- Parallel Robot Kinematics
- Dynamics of Machinery

Last updated: April 15, 2024