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EDUCATION

2008-2012	Ecole Centrale Paris (CentraleSupélec), Ph.D. (High Honors)
2005-2007	Gazi University, M.S.
2001-2005	Gazi University, B.S.

Associate Professorship Title (2022):

Aerospace Engineering - Aerospace Vehicle Design and Materials

HONORS

2012	Ph.D. with Distinction (Très honorable)
2008-2012	French Government Scholarship, CNOUS ANR PROCOM (ANR-08-MAPR-0025), EADS France (Airbus Group)

ACADEMIC POSITIONS

2025-Present	Associate Professor, Department of Aerospace Engineering, Atılım University, Türkiye
2021-2025	Associate Professor, Department of Aerospace Engineering, OSTİM Technical University, Türkiye
2015-2021	Assistant Professor, Department of Astronautical Engineering, University of Turkish Aeronautical Association, Türkiye

ADMINISTRATIVE DUTIES

2023-2023	Vice Dean, OSTİM Technical University
2022-2023	Acting Head of the Department of Aerospace Engineering, OSTİM Technical University
2019-2019	Associate Director of the Institute of Science and Technology, University of Turkish Aeronautical Association
2017-2018	Acting Head of the Department of Mechatronics Engineering, University of Turkish Aeronautical Association

RESEARCH INTERESTS

1	Structural Design and Analysis of Aerospace Structures
2	Composite Structures and Materials
3	Computational Mechanics, Finite Element Analysis
4	Fracture Mechanics

PUBLICATIONS

1	Girard H. & Mızrak M.A. (2025). Advanced UAV performance analysis with additively manufactured components using factorial design, CEAS Aeronautical Journal. https://doi.org/10.1007/s13272-025-00872-9
2	Özel, M.F. & Girard, H. (2025). Shear Buckling in Thin-Walled Structures: Insights from Python for Structural Analysis. In: Girard, H. & Utku, D.H. (eds) (2025) Advances in Aerospace Engineering: Artificial Intelligence, Structures, Materials, and Optimization, CRC Press, Taylor&Francis Group LLC, Boca Raton, FL, USA. ISBN: 978-1-032-44135-1. https://doi.org/10.1201/9781003370659
3	Ince, O.S., Alpan, O., Şen, I. & Girard, H. (2025). Optimized Lattice Structure Design and Analysis for Aircraft Brackets with an Evaluation of Additive Manufacturing Viability. In: Girard, H. & Utku, D. H. (eds) Advances in Aerospace Engineering: Artificial Intelligence, Structures, Materials, and Optimization, CRC Press, Taylor&Francis Group LLC, Boca Raton, FL, USA. ISBN: 978-1-032-44135-1. https://doi.org/10.1201/9781003370659
4	Girard, H. & Utku, D.H. (2025). Utilizing Factorial Modeling to Probe Multifaceted Mechanical Properties of Polymer Composites. Journal of Polytechnic, vol. 28, 765-772. https://doi.org/10.2339/politeknik.1480738
5	Yavuz, H. & Konacaklı, E. (2023). Digital Twin Applications in Spacecraft Protection. In: Karaarslan, E., Aydin, Ö., Cali, Ü., Challenger, M. (eds) Digital Twin Driven Intelligent Systems and Emerging Metaverse. Springer, Singapore. https://doi.org/10.1007/978-981-99-0252-1_14
6	Yavuz, H. (2022). Hybrid Composites for Very Large Lightweight Wind Turbine Blades: Structural and Materials Aspects. In: Mazlan, N., Sapuan, S., Ilyas, R. (eds) Advanced Composites in Aerospace Engineering Applications. Springer, Cham. https://doi.org/10.1007/978-3-030-88192-4_21
7	Yavuz, H. (2021). Computation of Dimensional Variations on the Structural Analysis of Multi-Cell Aircraft Box Beams with Python Scripting. Aircraft Engineering and Aerospace Technology, 93(5), pp. 880- 887. https://doi.org/10.1108/AEAT-03-2021-0077
8	Yavuz, H. & Utku, D. H. (2021). Parametric and Non-Parametric Tests for the Evaluation of Interlaminar Fracture Toughness of Polymer Composites. Journal of Reinforced Plastics and Composites, 40(11-12), pp. 450-462. https://doi.org/10.1177/0731684420973078
9	Yavuz, H. (2021). Cylindro-Conical Mild Steel Projectile Impact on E-Glass Fiber Reinforced Laminated Composite Plate Including Delamination Analysis. European Mechanical Science, 5(1), pp. 21-27. https://doi.org/10.26701/ems.822502
10	Yavuz, H. (2020). Predictive Modeling of Material Properties for Aircraft Control Cables. Aircraft Engineering and Aerospace Technology, 92(10), pp. 1533-1538. https://doi.org/10.1108/AEAT-05-2020-0103
11	Yavuz, H. (2019). Materials Selection for Aircraft Skin Panels by Integrating Multiple Constraint Design with Computational Evaluations. Procedia Structural Integrity, 21, pp. 112-119. https://doi.org/10.1016/j.prostr.2019.12.092

12	Yavuz, H. & Bai, J. (2018). Plasma Polypyrrole Coated Hybrid Composites with Improved Mechanical and Electrical Properties for Aerospace Applications. <i>Applied Composite Materials</i> , 25, pp. 661-674. https://doi.org/10.1007/s10443-017-9644-2
13	Yavuz, H. , Girard, G. & Bai, J. (2016). Dielectric Barrier Discharge Assisted Continuous Plasma Polypyrrole Deposition for the Surface Modification of Carbon Nanotube-grafted Carbon Fibers. <i>Thin Solid Films</i> , 616 pp. 220-227. https://doi.org/10.1016/j.tsf.2016.08.028
14	Dilsiz, N., Yavuz, H. , Çörekçi, S. & Çakmak, M. (2011). Plasma Surface Functionalization of Biaxially Oriented Polypropylene Films with Trimethyl Borate. <i>Advances in Materials Physics and Chemistry</i> , 1(2), pp. 50-55. https://doi.org/10.4236/ampc.2011.12009
15	Yavuz, H. , Rzaev, Z. & Dilsiz, N. (2008). Characterisation of Flame Retardant Plasma Polymer Deposited BOPP Film. <i>Plastics, Rubber and Composites</i> , 37(5-6), 268-275. https://doi.org/10.1179/174328908X309385

PROJECTS

1	Vibration Isolation of Flight-Critical Components of a Surveillance Drone (Bir Gözetleme Dronunun Uçuş Kritik Bileşenlerinin Mekanik Titreşim Analizi ve Yalıtımı), Scientific Research Projects - Ostim Technical University, BAP202304, 01.03.2023-01.11.2023, Principal Investigator. Grant: 250000 ₺
2	Balistik Koruyucu Başlık, Balistik Koruyucu Yelek ve NIJ0101.06 IV Seviye Zırh Üretimi Yetenek Kazanımı ve Kapasite Artırımı Projesi, MSB ASFAT A.Ş., 01.06.2022-01.06.2023. Advisor.
3	PROcédé de post-traitement des renforts hybrides pour COMposites - PROCOM, EADS IW (Airbus Group), ANR-08-MAPR-0025, 01.01.2009-01.01.2013, PhD Student/Researcher. Grant: 1883189 €
4	Bor İçerikli Yüksek Sıcaklığa ve Aleve Dayanıklı Poliölefin Filmler, Ulusal Bor Araştırma Enstitüsü, BOREN-2006-Ç-02, 26.02.2006-24.02.2008, MSc Student/Researcher. Grant: 90000 ₺

CONFERENCE PRESENTATIONS

1	Umut Can Yılmaz, Hande Girard , "Thermomechanical Analysis of Internal Ballistic Phenomena in Large-Caliber Barrel Systems Using Finite Element and Experimental Validation Approaches", 2025 16th International Conference on Mechanical and Aerospace Engineering (ICMAE 2025), Rome, Italy, July 15-18, 2025.
2	Korcan Ünal , Hande Girard , "Damaged Steel Pipelines: Composite Wrapping Method and Other System Components for Maintaining Operational Continuity", 1st International Conference on Materials Sciences and Mechatronics for Sustainable Energy and the Environment (MSMS2E 2024), Beni Mellal, Morocco, October, 1-3, 2024.
3	Hande Yavuz , Mehmet Ali Mızrak, Şafak Nesli <i>et al.</i> "Flight Performance Evaluation of a Mini Drone by Revisiting Structural Design via Additive Manufacturing Technology", ASME SMASIS 2023, Austin (TX), USA, September, 11-13, 2023.
4	Hande Yavuz , Sıdika Yılmaz, "Comparative Analysis on the Structural Design of Various Aircraft Box Beams Using Python Scripting", 5th International Scientific and Vocational Studies Congress- Engineering (BILMES EN2020), Türkiye, 12-15.12.2020.
5	Hande Yavuz , "Verification of Oxygen Free High Purity Copper Bar Computational Impact Analysis with Hawkyard Energy Approach", 4th International Conference on Engineering Technologies (ICENTE20), Konya, Türkiye, 19-21.11.2020.

6	Hande Yavuz , Sıdıka Yılmaz, "Computational Analysis and Performance Evaluation of a Conical Nose Shaped Cylindrical Projectile Impact on a Laminated Composite Plate Structure", 5th International Mediterranean Science and Engineering Congress (IMSEC 2020), Antalya, Türkiye, 21-23 October, 2020.
7	Hande Yavuz , Sıdıka Yılmaz, "Computational Analysis of a Taylor Bar Impact Problem using Finite Element Method with Model Verification", 5th International Mediterranean Science and Engineering Congress (IMSEC 2020), Antalya, Türkiye, 21-23 October, 2020.
8	Hande Yavuz , "Computational Failure Analysis Using Statistically Resembling In-situ Characteristics of Carbon Fiber Reinforced Polymer Composites", 16th Civil, Structural, Environmental Engineering Computing, Elsevier Application, Riva del Garda, Italy, 16-19.09.2019.
9	Abdullah Duman, Ömer Bahadır Öçal, Baransel Çelensü, Hande Yavuz , "Materials Selection for Aircraft Skin Panels by Integrating Multiple Constraints Design with Computational Evaluations", 1st International Workshop on Plasticity, Damage, and Fracture of Engineering Materials, Ankara, Türkiye, 21-22.08.2019.
10	Sevde Sena Kaplan, Asutay Çetin, Hande Yavuz , "Design of Internal Rods in Central Wing-box for an Aircraft", 8th North American Materials Education Symposium, Massachusetts Institute of Technology (MIT), Cambridge, MA, USA, 23-25.08.2017.
11	Hande Yavuz , Jinbo Bai, "Optimization of conducting plasma polymer deposition at atmospheric pressure and characterization of deposited layer on CNT-CF hybrid", Colloque Nano-hybrides 8, Conference Memory Stick, La Marana-Bastia, Corsica, 5-9.06.2011.
12	Nursel Dilsiz, Miyaser Demirel, Hande Yavuz , Vecihi Pamuk, "Investigation of flame retardancy and physical-mechanical properties of zinc borate/boric acid polyester composites", 5th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries, pp. 293-94, Cetraro/Cosenza, Italy, 24-29.05.2008
13	H. Yavuz , Z.M.O. Rzaev, N. Dilsiz, "Bor içerikli yüksek sıcaklığa ve aleve dayanıklı poliolefin filmler", 2. Ulusal Bor Çalıştayı, s. 367-372, Ankara, Türkiye, 17-18.04.2008.
14	N.Dilsiz, I. Bagci, H. Yavuz , A. Biçer, "Preparation and characterization of nano-silica/epoxy nanocomposite", 3rd China-Europe Composite Symposium on Processing and Properties of Reinforced Polymers, pp. 55, Budapest, Hungary, 11-15.06.2007
15	Hande Yavuz , Zakir Rzayev, Nursel Dilsiz, "Characterisation of flame retardant plasma polymer deposited BOPP film", 3rd China-Europe Composite Symposium on Processing and Properties of Reinforced Polymers, pp.88, Budapest, Hungary, 11-15.06.2007.

COURSES GIVEN

1	Introduction to Aerospace Engineering
2	Aerospace Structures
3	Strength of Materials
4	Finite Element Analysis
5	Composite Mechanics
6	Impact Dynamics
7	Numerical Methods for Engineers