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(*Professor of Materials Science and Engineering*)

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EDUCATION

Ph.D., Materials Science and Engineering University of Delaware, USA Center for Composite Materials <i>Dissertation: Investigation of the Fiber/Matrix Interphase under High Loading Rates</i> (<i>Graduate Research Award</i>) (<i>Advisor: John Gillespie, Jr.</i>)	1996-2000
Master of Science, Materials Science and Engineering University of Delaware, USA <i>Thesis Title: Fabrication and Characterization of SiC-Based Bodies and Composites</i> <i>Produced via Polymer Pyrolysis</i>	1993-1996
Bachelor of Science, Metallurgical Engineering Istanbul Technical University, Turkey, İstanbul, Turkey (<i>Graduation Honor, 2 nd highest GPA</i>) <i>Thesis Title: Processing and Characterization of Glass-Ceramic Materials Nucleated with Titania</i>	1989-1992

ACADEMIC EXPERIENCE

Professor, İzmir Institute of Technology Mechanical Engineering Department, Urla, İzmir, Turkey	8/2009 - present
Visiting Professor, Center for Composite Materials, University of Delaware, USA Mechanical Engineering Department, Urla, İzmir, Turkey	08/2025 - 04/2026
Associate Professor, İzmir Institute of Technology Mechanical Engineering Department, Urla, İzmir, Turkey	6/2004 – 8/2009
Assistant Professor, İzmir Institute of Technology Mechanical Engineering Department, Urla, İzmir, Turkey	2000 – 6/2004
Researcher, Center for Composite Materials, University of Delaware, USA Research Topics: “Characterization of the effects of preforming binder on thermophysical and mechanical properties of glass/epoxy composites.”	12/1999 -7/2000
Graduate Research Assistant, Center for Composite Materials, University of Delaware, USA Research Topic: “Characterization of the fiber/matrix interphase properties under various loading conditions.”	1996-2000
Master Project, Dept. of Materials Science and Engineering, University of Delaware, USA Research Topics: “Developing routes to process ceramics applied to coating, bonding and ceramic matrix Composites (CMC) via pyrolysis of polymers.”	1994-1996

RESEARCH INTEREST

Composite Materials Design and Processing, Surfaces and Interface/Interphase Modifications, Adhesion, Composite Component Manufacturing via Filament Winding, RTM, Vacuum Infusion, Thermoforming, Prepreg Technologies etc., Carbon nanotube, Graphene etc. based Nanocomposites, Preform/Prepreg Technologies, Armor Structures, Porous Materials, Microstructure, Mechanical and Thermal Property Characterization of Materials, Composite Failure Mechanisms, Impact and Fatigue of Composites.

ADMINISTRATIVE EXPERIENCE

General Manager, İzmir Technology Development Zone (Technopark İzmir) 03/2019 – 11/2024
Urla, İzmir, Turkey

(Innovation and Technology Development Management, Acceleration Programs, University-Industry Cooperations, Technology Transfer Offices and Infrastructure Development Management)

Senior Representative, Project Coordinator, İzmir Network and Innovation Center (İzmir NIC) 03/2020 – 11/2024
(Funded by European Union)
(Development and Running Global Focused Acceleration Programs for StartUps/SMEs and Eco-system Development Program Managements)

Chairman, İzmir Institute of Technology 01/2007 – 03/2019
Mechanical Engineering Department, Urla, İzmir, Turkey

Manager and Founder, Composite Research Labs. 2004 – Present
İzmir Institute of Technology

Vice Dean, İzmir Institute of Technology 02/2003 – 01/2005
(Responsible for Research / Research Infrastructure)

Vice President, İzmir Institute of Technology 02/2010 – 08/2010
Urla, İzmir, Turkey
(Responsible for Research / Intellectual Properties / Libraries)

PUBLICATIONS

Peer-Reviewed International Journals :

1. Innovative Surface Treatment Techniques for Carbon Fiber-Based Polymer Matrix Composites, Iris Mehmet Erdem, Tanoglu Metin, Salamci, Elmas, Dehneliler Serkan, Iplikci, Hande, Esenoglu Gozde. ***Solids***, v.7, issue 1, (2026)
2. Investigating the Effects of Functionalized Single Wall Carbon Nanotubes on the Cure Behavior of a Carbon/Epoxy Prepreg System by an Optimized Parameter Approach, Murat Öz, Yusuf Can Uz, Gamze Tanoglu, Metin Tanoglu, Murat Barisik, ***Polymer Composites***, 1-16 (2025)
3. Fatigue-resistant design of carbon/epoxy composites based on a failure tensor polynomial model by particle swarm optimization-sequential quadratic programming algorithm, Devci Hamza Arda, Artem Hatice Seçil, Güneş Mehmet Deniz, Tanoğlu Metin, ***Journal of Reinforced Plastics and Composites***, Vol. 44(21-22) 2436–2449 (2025)
4. Improving mechanical behavior of adhesively bonded composite joints by incorporating reduced graphene oxide added polyamide 6,6 electrospun nanofibers, Yeke, M., Barisik, M., Tanoğlu, M., Dehneliler, S., Erdem İriş, M. ***Composite Structures*** 337, 118026 (2024)
5. Influence of intra-ply discontinuities on the mechanical behavior of continuous E-glass fiber reinforced composites, Kiliçoğlu, A.S., Tanoğlu, M., Bilmez, S.A., Güneş, M.D., Erdoğan, H.S., ***Journal of Composite Materials*** 58(28), pp. 2955–2973 (2024)
6. Advancement in the Modeling and Design of Composite Pressure Vessels for Hydrogen Storage: A Comprehensive Review, Bouhala, L., Karatrantos, A., Reinhardt, H., Aktaş, E., Tanoglu, M. ***Journal of Composites Science*** 8(9), 339 (2024)
7. Multi-scale analysis of the adhesive bonding behavior of laser surface-treated carbon fiber reinforced polymer composite structures, Nuhoglu, K., Aktas, E., Tanoglu, M., Dehneliler, S., Iris, M.E. ***International Journal of Adhesion and Adhesives*** 130, 103643 (2024)

8. Fatigue-resistant design of carbon/epoxy composites based on a failure tensor polynomial model by particle swarm optimization-sequential quadratic programming algorithm Deveci, H.A., Artem, H.S., Güneş, M.D., Tanoğlu, M. *Journal of Reinforced Plastics and Composites* 05-29 (2024)
9. Development of resin-based dental composites containing hydroxyapatite and zirconia nanoparticles, Tunca Taşkıran, S., Tanoğlu, M., Çerci, N., ... Ünver, E., Aktaş, M.İ. *Polymer Composites* 45(11), pp. 10470–10485 (2024)
10. Investigating the Effects of PA66 Electrospun Nanofibers Layered within an Adhesive Composite Joint Fabricated under Autoclave Curing Esenoğlu, G., Tanoğlu, M., Barisik, M., ... Gürbüz, A.A., İriş, M.E. *ACS Omega* 8(36), pp. 32656–32666 (2023)
11. Analysis of adhesively bonded joints of laser surface treated composite primary components of aircraft structures, Nuhoglu, K., Aktaş, E., Tanoğlu, M., Dehneliler, S., İriş, M.E. *International Journal of Adhesion and Adhesives* 126, 103456 (2023)
12. Effects of nanosecond laser ablation parameters on surface modification of carbon fiber reinforced polymer composites" Hande İplikçi, Murat Barisik, Ceren Türkdogan, Seçkin Martin, Melisa Yeke, Kaan Nuhoglu, Gözde Esenoglu, Metin Tanoglu, Engin Aktas, Serkan Dehneliler, Mehmet Erdem Iris" *Journal of Composite Materials*, 57, 18, 2843-2855 (2023)
13. Investigating the Effects of PA66 Electrospun Nanofibers Layered within an Adhesive Composite Joint Fabricated under Autoclave Curing" Gözde Esenoğlu, Metin Tanoğlu, Murat Barisik, Hande İplikçi, Melisa Yeke, Kaan Nuhoglu, Ceren Türkdogan, Seçkin Martin, Engin Aktas, Serkan Dehneliler, Ahmet Ayberk Gürbüz, Mehmet Erdem İriş, *American Chemical Society (ACS) Omega*, 8, 32656-32666 (2023)
14. Improving adhesive behavior of fiber reinforced composites by incorporating electrospun Polyamide-6, 6 nanofibers in joining region, Gözde Esenoglu, Murat Barisik, Metin Tanoglu, Melisa Yeke, Ceren Türkdogan, Hande İplikçi, Seçkin Martin, Kaan Nuhoglu, Engin Aktas, Serkan Dehneliler, Mehmet Erdem Iris *Journal of Composite Materials*, 56.29, 4449-4459 (2022)
15. Determination of activation energy for carbon/epoxy prepregs containing carbon nanotubes by differential scanning calorimetry, Yusuf Can Uz, Metin Tanoglu *High Performance Polymers*, 35 (2) , pp.166-180 (2022)
16. Fatigue life prediction and optimization of GFRP composites based on Failure Tensor Polynomial in Fatigue model with exponential fitting approach, Mehmet D Günes, Neslisah, Imamoglu Karabas, Hamza A Deveci, Gamze Tanoglu, Metin Tanoglu, *Proc I MechE Part C: Journal of Mechanical Engineering Science*, vol. 236(19) 10290–10303 (2022)
17. Investigation of hybridization effect on ballistic performance of multi-layered fiber reinforced composite structures, Hikmet Sinan Ustün, Ahmet Kaan Toksoy Metin Tanoglu, *Journal of Composite Materials*, vol. 56(15) 2411–2431 (2022)
18. Enhancement of filament wound glass fiber/ epoxy-based cylindrical composites by toughening with single-walled carbon Nanotubes, Zeynep Ay Solak, Osman Kartav, Metin Tanoglu, *Polymers and Polymer Composites*, vol. 30: 1–13 (2022)
19. A Comprehensive Study on Burst Pressure Performance of Aluminum Liner for Hydrogen Storage Vessels, Kangal, S., Say, A.H., Ayakda, O., Kartav, O., Aydin, L ., Artem, H.S., Aktas, E ., Yucetürk, K ., Tanoglu, M., Kandemir, S., Beylergil, B., *JOURNAL OF PRESSURE VESSEL TECHNOLOGY-TRANSACTIONS OF THE ASME*, 143 (4) (2021)
20. Development and analysis of composite overwrapped pressure vessels for hydrogen storage, Kartav, O., Kangal, S., Yucetürk, K., Tanoglu, M., Aktas, E ., Artem, H.S., *Journal of Composite Materials*, vol. 55, Issue 28, Page 4141-4155 (2021)
21. Experimental and statistical analysis of carbon fiber/epoxy composites interleaved with nylon 6,6 nonwoven fabric interlayers, Bertan Beylergil, Metin Tanoğlu, Engin Aktaş, *Journal of Composite Materials*, (2020)
22. Investigation of interlayer hybridization effect on burst pressure performance of composite overwrapped pressure vessels with load-sharing metallic liner, Serkan Kangal, Osman Kartav, Metin Tanoglu, Secil Artem, Engin Aktas, *Journal of Composite Materials*, 54, 7, 961-980 (2019)
23. Mode-I fracture toughness of carbon fiber/epoxy composites interleaved by aramid nonwoven veils, 31, 2, 113-123 Bertan Beylergil, Metin Tanoğlu, Engin Aktaş, *Steel and Composite Structures* (2019)
24. Developing polymer composite-based leaf spring systems for automotive industry, N. Oztoprak, M. D. Gunes, M. Tanoglu, E. Aktas, O. O. Egilmez, C. Senocak, G. Kulac, *Science and Engineering of Composite Materials*, (2018)

25. Effect of polyamide-6,6 (PA 66) nonwoven veils on the mechanical performance of carbon fiber / epoxy composites, Bertan Beylergil, Metin Tanoğlu, Engin Aktaş, *Composite Structures*, 194, 21-35 (2018)
26. Enhancement of Interlaminar Fracture Toughness of Carbon Fiber/Epoxy Composites Using Polyamide 6/6 Electrospun Nanofibers, Bertan Beylergil, Metin Tanoğlu, Engin Aktaş, *Journal of Applied Polymer Science*, 134, 35 (2017)
27. Modification of carbon fiber/epoxy composites by polyvinyl alcohol (PVA) based electrospun nanofibers, Bertan Beylergil, Metin Tanoğlu, Engin Aktaş. *Advanced Composites Letters*, 25(3): 69-76 (2016)
28. Optimal design of compressed hydrogen storage vessels using multi-objective genetic algorithm. Bertan Beylergil, Engin Aktaş, Metin Tanoğlu, H.Seçil Artem. *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications* (2016)
29. Dynamic behavior predictions of fiber-metal laminate/aluminum foam sandwiches under various explosive weights, S.B. Bastürk, M. Tanoglu, *Journal of Sandwich Structures and Materials*, vol. 18 no. 3 321-342 (2016)
30. Effects of hybrid yarn preparation technique and fiber sizing on the mechanical properties of continuous glass fiber-reinforced polypropylene composites, E. Merter, G. Başer, M. Tanoglu, *Journal of Composite Materials*, vol. 50, issue 12, pp. 1697-1706 (2016)
31. Development and Mechanical Behavior of FML/Aluminium Foam Sandwiches, S.B. Bastürk, M. Tanoglu, *Applied Composite Materials*, Vol. 20, 5, 789-802, (2013)
32. Interfacial properties of aluminum/glass-fiber reinforced polypropylene sandwich composites, S.B. Bastürk, A. Gurusecu, M. Tanoglu, *Mechanics of Composite Materials*, Vol. 49, 3, 317-324 (2013)
33. Development of electrically conductive and anisotropic gel-coat systems using CNTs, Atike Ince Yardımcı, Metin Tanoglu, Yusuf Selamet, *Progress in Organic Coatings* v. 76, 6, 963-965 (2013)
34. Mechanical and energy absorption behaviors of metal/polymer layered sandwich structures, S.B. Basturk, M. Tanoglu, *Journal of Reinforced Plastics and Composites*, Vol. 30, 18, 1539-1547 (2011)
35. Mechanical behavior of polypropylene based honeycomb cored composite sandwich structures, F. Sezgin, M. Tanoglu, O. Eğilmez, C. Dönmez, *Journal of Reinforced Plastics and Composites*, vol. 29 , 10 , 1569-1579 (2010)
36. Electric field effects on CNTs/vinyl ester suspensions and the resulting electrical and thermal composite properties, H. Yurdakul, A. T. Seyhan, S. Turan, M. Tanoglu, W. Bauhofer, K. Schulte, *Composites Science and Technology*, Vol. 70, 14, 2102-2110 (2010)
37. Characterization investigations during mechanical alloying and sintering of W-20 vol% SiC composites, S. Coskun S, ML. Övecoglu, B. Özkal , M. Tanoğlu, *Journal of Alloys and Compounds* Vol. 492, 1-2, 576-584 (2010)
38. Tensile mechanical behavior and fracture toughness of MWCNT and DWCNT modified vinyl-ester/polyester hybrid nanocomposites produced by 3-roll milling, A. Tuğrul Seyhan, Metin Tanoğlu, Karl Schulte, *Materials Science and Engineering: A*, Volume 523, Issues 1-2, 15 October 2009, Pages 85-92
39. Thermal curing behavior of MWCNT modified vinyl ester- polyester hybrid resin suspensions prepared with 3-roll milling technique, A.T. Seyhan, A. De La Vega, M. Tanoglu, K. Schulte, *Journal of Polymer Science Part B: Polymer Physics*, v.47, 1511-1522 (2009)
40. Cure kinetics of vapor grown carbon nanofiber (VGCNF) modified epoxy resin suspensions and fracture toughness of their resulting nanocomposites, A.T. Seyhan, Z. Sun, J. Deitzel, M. Tanoglu, D. Heider, *Materials Chemistry and Physics*, (2009)
41. Mode I and mode II fracture toughness of E-glass non-crimp fabric/carbon nanotube (CNT) modified polymer based composites, A.T. Seyhan, M. Tanoglu, K. Schulte, *Engineering Fracture Mechanics* Volume 75, Issue 18, Pages 5151-5162 , (2008)
42. Layered Clay/Epoxy Nanocomposites: Thermomechanical, Flame Retardancy and Optical Properties, E. Kaya, M. Tanoğlu, S. Okur, *Journal of Applied Polymer Science*, vol. 109, 834-840 (2008)
43. Mechanical and thermal behavior of non-crimp glass fiber reinforced layered clay/epoxy nanocomposites, Bozkurt E, Kaya E, Tanoglu M , *Composites Science and Technology* Volume: 67 Issue: 15-16 Pages: 3394-3403, (2008)
44. Cure kinetics of epoxy resin-natural zeolite composites, B.C.Erdoğan, A.T. Seyhan, Y. Ocak, M. Tanoğlu, D. Balköse, S. Ülkü, *Journal of Thermal Analysis and Calorimetry*, Springer Netherlands, 18.12.2008, vol. 94, no. 3, pp. 743-747, (2008)

45. Thermostable tensoresistors of Co doped GaSb–FeGa_{1.3} eutectic composites R.N. Rahimova, A.A. Khalilova, D.H. Arasly, M.I. Aliyev, M. Tanoglu, L. Ozyuzer, ***Sensors and Actuators A: Physical*** Volume 147, Issue 2, 3 Pages 436-440 (2008)
46. Effects of Light Curing Method and Exposure Time on Mechanical Properties of Resin Based Dental Materials, A. R. Alpöz, F. Ertugrul, D. Cogulu, A. Topaloğlu Ak, M. Tanoğlu, E. Kaya, ***European Journal of Dentistry*** vol. 2, (2008), 37-42.
47. Rheological and dynamic-mechanical behavior of carbon nanotube/vinyl ester–polyester suspensions and their nanocomposites, A.T. Seyhan, F.H. Gojny, M. Tanoğlu and K. Schulte, ***European Polymer Journal***, Volume 43, Issue 7, (July 2007), 2836-2847.
48. Critical aspects related to processing of polyester/ nanocomposites, A. T. Seyhan, F.H.M. Wichmann, M. Tanoğlu, K. Schulte, ***European Polymer Journal***, Volume 43, Issue 2, (February 2007), 374-379.
49. Porous nanocomposites prepared from layered clay and PMMA (poly methylmethacrylate), Tanoglu, M., Ergun, Y., ***Composites Part A: Applied Science and Manufacturing***, Volume 38, Issue 2, (February 2007), 318-322.
50. Temperature Dependence of Electrical Conductivity in Double-Wall and Multi-Wall Carbon Nanotube / Polyester Nanocomposites, Y. Simsek, L. Ozyuzer, A.T. Seyhan, M. Tanoglu, K. Schulte, ***Journal of Materials Science***, 42 (2007) 9689-9695.
51. Silicon oxycarbide based composites produced from pyrolysis of polysiloxanes with active Ti filler Akkas, H. D., Öveçoğlu, M.L., Tanoğlu, M. ***Journal of the European Ceramic Society*** Volume 26, Issue 15, 3441-3449 (2006).
52. MgB₂ superconducting thin films sequentially fabricated using DC magnetron sputtering and thermoionic vacuum arc method, S. Okur, M. Kalkancı, S. Pat, N. Ekem, T. Akan, Z. Balbag, G. Musa, M. Tanoğlu, ***Physica C, Superconductivity and It's Applications***, 466, Issues 1-2, p. 205-208 (2007).
53. Morphosynthesis of CaCO₃ at different reaction temperatures and the effects of PDDA, CTAB, and EDTA on the particle morphology and polymorph stability, E. Altay, T. Shahwan and M. Tanoğlu, ***Powder Technology***, 178 p.197-205 (2007).
54. Effect of aluminum closed-cell foam filling on the quasi-static axial crush performance of glass fiber reinforced polyester composite and aluminum/composite hybrid tubes, M. Guden, S. Yüksel, A. Taşdemirci and M. Tanoğlu, ***Composite Structures***, Volume 81, Issue 4, (December 2007), 480-490.
55. Processing, characterization and photocatalytic properties of Cu doped TiO₂ thin films on glass substrate by sol–gel technique, E. Celik, Z. Gokcen, N.F. Ak Azem, M. Tanoglu and O.F. Emrullahoglu, ***Materials Science and Engineering B*** Volume 132, Issue 3, 258-265 (2006).
56. Preparation and characterization of Fe₂O₃–TiO₂ thin films on glass substrate for photocatalytic applications, Celik, E., Yıldız, A.Y., Ak Azem, N.F., Tanoglu, M., Toparlı, M., Emrullahoglu, O.F., Ozdemir, I. ***Materials Science and Engineering B*** Volume 129, Issues 1-3, 193-199 (2006).
57. Electrical and mechanical properties of superconducting MgB₂/Mg metal matrix composites. Egilmez, M., Ozyuzer, L., Tanoğlu, M., Okur S., Kamer O., Oner, Y. ***Superconductor Science and Technology***, 19, 359-364 (2006).
58. Artificial neural network (ANN) prediction of compressive strength of VARTM processed polymer composites, Seyhan, A.T, Tayfur, G., Karakurt, M., Tanoğlu, M., ***Computational Materials Science***, 34, 99-105 (2005).
59. Polymethyl methacrylate based open-cell porous plastics for high-pressure ceramic casting, Ergün, Y., Dirier, C., Tanoğlu, M., ***Material Science and Engineering: A***, 385, 279-285 (2004).
60. Strain gauges of GaSb–FeGa_{1.3} eutectic composites, Aliyev, M. I., Khalilova, A.A., Arasli, D. H., Rahimov, R. N., Tanoglu, M., Ozyuzer, L., ***Applied Physics A, Materials Science and Processing*** A00, 1-4 (2004).
61. Development of Si–O–C Based Ceramic Matrix Composites Produced via Pyrolysis of a Polysiloxane, Akkas, H. D., Öveçoğlu, M.L., Tanoğlu, M. ***Key Engineering Materials***, v.264-268, p. 961-964, (2004).
62. Microstructure performance interrelation in PMMA-based open-cell porous materials for high pressure ceramic sanitaryware casting, Ergün, Y., Dirier, C., Yılmaz, M., Tokman, C., Tanoğlu, M. ***Key Engineering Materials***, v.264-268, p. 2235-2238, (2004).
63. The electrical and microstructure properties of Superconducting Mg/MgB₂ composites Eğilmez, M., Okur, S., Tanoğlu, M., Özyüzler, L ***Key Engineering Materials***, v.264-268, p. 1197-1200, (2004).
64. Electrical and Thermal Properties of the GaSb–FeGa_{1.3} Eutectic I. Aliev, A. A. Khalilova, D. G. Arasly, R. N. Rahimov, and M.Tanoglu, ***Inorganic Materials***, 2004, No4, (2004).

65. Mechanical properties and microstructural evaluation of AA5013 aluminum alloy treated in the semi-solid state by SIMA process, Saklakoglu, N., Saklakoglu, I.E., Tanoglu, M., Oztas, O., Cubukcuoglu, O, ***Journal of Materials Processing Technology***, 148, 103-107 (2004).
66. The effect of adhesive on the strengthening of aluminum foam-filled circular tubes, Toksoy, A. K., Tanoğlu, M., Güden, M., Hall, I. W. ***Journal of Materials Science*** 39, 1503-1506 (2004)
67. Compressive mechanical behavior of the E-glass / polyester composite laminates tailored with a thermoplastic preforming binder, Tanoğlu, M., Seyhan, A. T., ***Material Science and Engineering: A***, A363, 335-344 (2003).
68. Features of electron and phonon processes in GaSb-FeGa_{1.3} eutectics, Aliyev, M. I., Khalilova, A.A., Arasli, D. H., Rahimov, R. N. , Tanoglu, M., Ozyuzer , L., ***Journal of Physics: D, Applied Physics*** 36, 2627-2633 (2003).
69. Investigating the Effects of a Polyester Performing Binder on the Mechanical and Ballistic Performance of E-glass Fiber Reinforced Polyester Composites, Tanoğlu, M., Seyhan, A. T., ***International Journal of Adhesion and Adhesives***, 23, 1-8 (2003).
70. Fiber/matrix interphase characterization using the dynamic interphase loading apparatus, Foley, M.E. Abu Obaid, A., Huang, X., Tanoğlu, M., Bogetti, T.A., McKnight, S.H., Gillespie Jr., J.W., ***Composites Part A: Applied Science and Engineering***, 33, 1345–1348 (2002)
71. Effects of Thermoplastic Preforming Binder on Properties of S2- Glass Fabric Reinforced Epoxy Composites, Tanoğlu. M., Robert, S., Heider, D., McKnight, S.H., Gillespie, Jr., J. W., ***International Journal of Adhesion and Adhesives***, 21, 187–195 (2001).
72. Investigation of Properties of the Interphases Formed due to the Glass Fiber Sizings, Tanoğlu, M., Ziaee, S., McKnight, S.H., Palmese, G. R., Gillespie, Jr., J. W., ***Journal of Materials Science***, 36, 3041-3053 (2001).
73. The Effects of Glass Fiber Sizings on the Strength and Energy Absorption of the Fiber/Matrix Interphase under High Loading Rates, Tanoğlu, M., McKnight, S.H., Palmese, G. R., Gillespie, Jr., J. W., ***Composites Science and Technology***, 61, pp. 205-220 (2001).
74. A New Technique to Characterize the Fiber/Matrix Interphase Properties under High-Strain-Rates Tanoğlu, M., McKnight, S.H., Palmese, G. R., Gillespie, Jr., J. W., ***Composites Part A: Applied Science and Engineering***, 31, 1127-1138 (2000).
75. Dynamic Stress/Strain Response of the Interphase in Polymer Matrix Composites, Tanoğlu, M., McKnight, S.H., Palmese, G. R., Gillespie, Jr., J. W., ***Polymeric Composites***, v.22, n. 5, 621 – 635 (2001).
76. Use of Silane Coupling Agents to Enhance the Performance of Adhesively Bonded Alumina to Resin Hybrid Composites, Short Communication, Tanoğlu, M., McKnight, S.H., Palmese, G. R., Gillespie, Jr., J. W., ***International Journal of Adhesion and Adhesives***, 18 431-434 (1998).
77. A SiC/SiC Composite Produced by Polymer Pyrolysis of Polydiphenylcarbosilane, Tanoğlu, M., Parvizi-Majidi, A., ***Science and Engineering of Composite Materials***, volume 7, no 3, 239-247 (1998).

Conference Proceedings :

1. Jonathan Wilsona, Michael Vo, Metin Tanoglu, Sagar Doshia, Joseph Deitzel, Srikanth Pilla, Dirk Heider, Development of Natural Fiber Composites Fabricated Using Flax Fiber Preforms Prepared via TuFF (Tailorable Universal Feedstock for Forming), Abstract and Oral Presentation at 22 nd European Composite Society (ECCM 22) Conference, June 2026.
2. Manufacturing and Mechanical Characterization of Graphene-Reinforced Type IV COPVS for High-Pressure Hydrogen Storage, Muhammed Erdal Ulaşlı, Onur Özcan, Metin Tanoğlu, Engin Aktaş, Erdin Yilmaz, Eren Tekin, and Beril Akin Future in Composite Materials: Sustainable, High-Performance, Digitally-Driven Applications, Springer Proceedings in Materials, v.126 p. 133-144 (2026)
3. Design, Simulation, and Optimization of High-Pressure Type-IV Composite Pressure Vessels Reinforced with Graphene Nanoplatelets for Hydrogen Storage Using Finite Element Analysis, Onur Özcan, Muhammed Erdal Ulaşlı, Metin Tanoğlu, Engin Aktaş, Erdin Yilmaz, Eren Tekin, and Beril Akin. Future in Composite Materials: Sustainable, High-Performance, Digitally-Driven Applications, Springer Proceedings in Materials, v.126 p. 243-256 (2026)
4. An Experimental–Analytical Approach for the Effect of Intra-Ply Discontinuities on the Mechanical Performance of Glass Fibre-Reinforced Polymer (GFRP) Leaf Springs Ahmet Süha Kiliçoğlu and Metin Tanoğlu Future in Composite Materials: Sustainable, High-Performance, Digitally-Driven Applications, Springer Proceedings in Materials, v.126 p. 257- 270 (2026)

5. Cihangir Cebeci, Gülin Kızılay, Ece Yaralı, Metin Tanoglu Development of Lightweight, Durable, and Sustainable Roof Trusses Using Polyurethane Pultrusion Technology, **5th Global Conference on Polymers, Plastics and Composites (PPC-2025)** Prag, Çekya (25-26 Haziran 2025)
6. Cihangir Cebeci, Gülin Kızılay, Gözde Bostancı, Metin Tanoglu Depreme Dayanıklı ve Sürdürülebilir Yapılar için BMC Enjeksiyon Teknolojisiyle Lego Tarzı Modüler Tuğlaların Geliştirilmesi, **4. Uluslararası Malzeme Mühendisliği ve İleri İmalat Teknolojileri Kongresi (IMEAMTC'25)** 25-26 Ocak 2025
7. Gözde Esenoglu, Ceren Türkdogan, Hande İplikçi, Seçkin Martin, Metin Tanoglu, Murat Barışık, Engin Aktaş, Serkan Dehneliler, Mehmet Erdem Eriş, Onat Can Zeytin 1Developing Innovative Approaches For Joining Structural Composite Parts1, **Mechcomp 7 / 7th International Conference on Mechanics of Composites , 2021**
8. H. Deveci, H. S. Artem, M. D. Güneş, M. Tanoglu, Optimum design of carbon/epoxy composite laminates for maximum fatigue life, **Kompege 2018 IV. International Ege Composite materials Symposium**, 2018
9. Bertan Beylergil, Metin Tanoğlu Improvement of Fracture Toughness of Carbon Fiber/Epoxy Composites Using Polyamide 66 Nanofibers, **2nd International Fiber and Polymer Research Symposium, Best Paper Award**, April, 2017, Bursa, Turkey
10. M. Ziya Okur, Serkan Kangal, Metin Tanoglu, Investigation of Mechanical and Interfacial Behavior of Carbon Fiber-Epoxy/Aluminum Honeycomb Sandwich Composites, **2nd International Fiber and Polymer Research Symposium, April, 2017, Bursa, Turkey**
11. Colpankan, O. Yildiz, S., Metin Tanoğlu, Development of Liquids Exhibiting Shear Thickening Effect for Protective Clothing Applications, **2nd International Fiber and Polymer Research Symposium**, April, 2017, Bursa, Turkey
12. Colpankan, O. Yildiz, S. M. Tanoğlu., DEVELOPMENT OF LIQUID ARMORS FOR BODY PROTECTION SYSTEMS, **7th European Conferance on Protectice Clothing**, Çeşme, İzmir, May 2016
13. Bertan Beylergil, Engin Aktaş, Metin Tanoğlu, H.Seçil Artem. Optimal design of compressed hydrogen storage vessels using multi-objective genetic algorithm. **The 1st International Conference on Materials Design and Applications** 2016 (MDA 2016), Book of Abstracts, Page Number: 155, Porto, Portugal; 07/2016.
14. Bertan Beylergil, Serkan Kangal, Mehmet Ziya Okur, Egemen Bilge, Özlem Türkaslan, Ece Belen, Deniz Korkmaz, Metin Tanoglu. The effects of weaving structure and weft density on the mechanical performance of woven carbon/epoxy composites. **International Porous and Powder Materials Symposium and Exhibition** (PPM 2015), Book of Abstracts, Page Number: 38, Turkey; 09/2015.
15. Bertan Beylergil, Metin Tanoğlu. Preperation and characterization of electrospun polyvinyl alcohol (PVA)/halloysite nanotubes (HNTs) hybrid nanofibers. **International Porous and Powder Materials Symposium and Exhibition**, PPM 2015, Book of Abstracts, Page Number: 183, Turkey; 09/2015.
16. Bertan Beylergil, Metin Tanoğlu. Toughening of unidirectional carbon fiber/epoxy composites by polyvinyl alcohol nanofiber interlayers. **Nanofibers, Applications and Related Technologies (NART 2015)**, Book of Abstracts, Page Number: 136, Czech Republic; 09/2015.
17. Bertan Beylergil, Metin Tanoğlu. Improving mechanical performance of unidirectional carbon fiber/epoxy composites by polyvinyl alcohol electrospun nanofibers. **International Porous and Powder Materials Symposium and Exhibition** (PPM 2015), Proceedings Book, Pages: 151-155. Turkey; 09/2014.
18. Esin Kızıltepe, Bertan Beylergil, Metin Tanoğlu, Murat Müdüroğlu. Mechanical and thermal properties of nano-calcium carbonate filled polypropylene composites. **International Porous and Powder Materials Symposium and Exhibition** (PPM 2013), Turkey; 09/2013.
19. Colpankan, O. Yildiz, S. M. Tanoğlu., “Silica Based Shear Thickening Fluids (STFs) and Their Composites” **9th International Conference on Composite Science and Technology (ICCST)**, Naples, ITALY APR 24-26, 2013
20. S. Yıldız, O. Çolpankan, F. Şenel, M. Tanoğlu, “Rheological Properties of Silica Based Shear Thickening Fluids (STFs)”, **1st International Conference on Rheology and Modeling of Materials**, Miskolc-Lillafured, Hungary (2013)
21. S. Yıldız, O. Çolpankan, F. Şenel, M. Tanoğlu, “Silica Based Shear Thickening Fluids (STFs) for Personal Protection”, **International Porous and Powder Materials Symposium and Exhibition** (PPM 2013), Çeşme, İzmir, (2013)
22. S.B.Baştürk, A. Guruşçu, M. Tanoğlu, “Interfacial Properties of Aluminum/Glass Fiber Reinforced Polypropylene Sandwich Composites” **17th Mechanics of Composite Materials**, MCM, Riga, Litvania, (2012).
23. Guruşçu, O. Çolpankan, B. Baştürk, M. Tanoğlu “Lamination and Interfacial Properties Development of Glass Fiber Reinforced Polypropylene/Aluminum Sandwich Composites” **III. International Symposium, Exhibition, and Workshop on Polymer Composites**, İzmir, (November 2012)

24. S.B. Bozkurt, M. Tanoğlu, E. Merter "The Mechanical Behavior and Energy Absorption Behavior of Layered Sandwich Composites" **13. Conference of European Composite Society**, Budapesht, Hungary, June 2010.
25. F. E. Sezgin, M. Tanoğlu, S.B. Bozkurt, O.O. Eğilmez "Experimental and Numerical Analysis on Mechanical Behaviour of Composite Sandwich Structures" **8th International Conference on Sandwich Structures**, ICSS 8, Porto, Portugal, 2008
26. S.B. Bozkurt, F.E. Sezgin, O. Eğilmez, E. Aktaş, M. Tanoglu, "Composite Sandwich Structures; Experimental Evaluation and Finite Element Analysis of Mechanical Properties", *Experimental Analysis of Nano and Engineering Materials and Structures*, Abstract of the **Proceedings of the 13th International Conference on Experimental Mechanics**, Greece, 2007, 119, July 2007.
27. R. N. Rahimov, D. G. Arasly, M. I. Aliev, A. A. Khalilova, L. Ozyuzer, M. Tanoglu, I. Kh. Mammadov "Thermostable Strain Transducers", TPE-06 **3rd International Conference on Technical and Physical Problems in Power Engineering**, Ankara, May 29-31, 2006.
28. E. Kaya, M. Tanoğlu "Mechanical and optical properties of clay/epoxy nanocomposites" **Conference Proceeding of Advancing with Composites 2005**, Naples, Italy, (11-14 Oct. 2005).
29. Ünal, E., Tanoğlu, "Fracture of layered composite materials under static and ballistic loading" **7th International Fracture Conference**, Kocaeli University, Kocaeli, Turkey, p. 749-761 (19-21 Oct. 2005).
30. Eğilmez, M., Ozyüz, L., Yavaş, M., Tanoglu, M. "Development of MgB₂ Superconducting Wires and tapes for Electrical Power Applications", **IEEEES-1 Proceedings of the First International Exergy, Energy and Env. Symposium** 13-17 July 2003, Izmir, p. 447- 450.
31. Seyhan, A. T., Tanoğlu, M. Effects of a polyester preforming binder on the mechanical and ballistic performance of glass fiber reinforced composites for armor, **11th International Metallurgy and Materials Congress**, Istanbul, June 2002.
32. Ziaee, S., Brody, J. C., Tanoğlu, M., Gillespie Jr., J. W., McKnight, S.H., Effects of a Polyester Preforming Binder on Properties of E-glass Fabric Reinforced Vinyl-Ester Composites, **Conference Proceedings of 16th Annual Technical Conference of American Composite Society**, Blacksburg, Virginia, (Sept. 10-12, 2001).
33. Tanoğlu, M., McKnight, S.H., Palmese, G. R., Gillespie, Jr., J. W., Glass/Epoxy Interphase Response under High Loading Rates, **Conference Proceedings of the 1999 57th Annual Technical Conference, ANTEC**, Society of Plastic Engineers. New York, NY (1999).
34. Tanoğlu, M., McKnight, S.H., Palmese, G. R., Gillespie, Jr., J. W., Characterization of the Fiber/Matrix Interphase under High Strain Rates, Abstracts of **6th Conference on Interfacial Phenomena in Composite Materials (IPCM'99)**, Berlin, Germany (September 10, 1999).
35. Tanoğlu, M., McKnight, S.H., Palmese, G. R., Gillespie, Jr., J. W., Effects of a Low Modulus Interphase on the Single Fiber Fragmentation of Carbon/Epoxy Composites, **Conference Proceedings of the 1998 56th Annual Technical Conference, ANTEC**, Society of Plastic Engineers, Part 2 (of 3) v 2 1998 Atlanta, GA, USA 3 Soc. Plast. Eng., Brookfield CT USA pp. 2346-2350 (Apr 26-30 1998).
36. Öveçoğlu, M. L., Tanoğlu, M., Kınikoğlu, S. Taşçı, M., Microstructural and Physical Properties of Waste Turkish Iron Slag Based Glass-Ceramics Nucleated with Titania and Natural Chromite Ore, **Proceedings of Eight CIMTEC World Ceramic Congress**, Florence, Italy, 29 June - 4 July 1994
37. Tanoğlu, M., Kara, H., Öveçoğlu, M. L., Glass-Ceramics Developed from Waste Iron-Steel Slags 1: Characterization of Natural Chromite Ore Nucleated Glass-Ceramic, **Proceedings of International Ceramic Congress**, Istanbul, Turkey, Publication of Turkish Ceramic Society, October 1992, pp. 127-137
38. Kara, H., Tanoğlu, M., Öveçoğlu, M. L., Glass-Ceramics Developed from Waste Iron-Steel Slags 2: Microstructural and Physical Properties of %7 and %15 Bone Ash Nucleated Glass-Ceramics, **Proceedings of International Ceramic Congress**, Istanbul, Turkey, Publication of Turkish Ceramic Society, October 1992, pp. 138-148.

PATENTS:

1. Tanoglu, M and Gillespie, Jr, J. W. "Dynamic Interphase-Loading Apparatus and Method of using the Same" (2004) **US Patent** No: 6778914. (available from <http://www.uspto.gov/patft/index.html>)
2. "Cylindrical Composite Products and a Method to Improve Their Performance with Nano- Sized Additives, **WIPO PCT**, 29 June 2023

EDITORIAL ACTIVITIES

1. **Co-Editor: Future in Composite Materials: Sustainable, High-Performance, Digitally-Driven Applications**, Springer Proceedings in Materials, Select Proceedings of International Polymer Composites (IPC 2025) Symposium and Workshops, vol 126 ISBN 978-3-032-28148-7 (2026)
2. **Co-Editor:** International Polymer Composites (IPC 2025) Proceedings Book, UCTEA Chamber of Chemical Engineers, ISBN 978-605-01-1772-1 (2026)
3. **Co-Editor:** International Polymer Composites (IPC 2025) Abstracts Book, UCTEA Chamber of Chemical Engineers, (2026)
4. **Co-Editor, Abstracts Book, International Porous and Powder Materials Symposium (PPM 2013, 2014, and 2015)**, İzmir, Türkiye.
5. **Co-Editor, Proceedings Book, International Porous and Powder Materials Symposium (PPM 2013, 2014, and 2015)**, İzmir, Türkiye.

FUNDED PROJECTS:

1. Safe Composite Pressure Vessels with Self Structural Health Monitoring Capacity – “HYMOCA”, *MeraNET Project, Funded by EU and TÜBİTAK* (in collaboration between The Luxembourg Institute of Science and Technology, Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V., Lightweight Structures Engineering GmbH (LSE), Germany, Izmir Institute of Technology and Izoreel Composites Inc., Turkey), Researcher 2024-2026.
2. Development of Next-Generation Nanoparticle-Reinforced Type III Composite Pressure Vessels (COPVs) for Hydrogen Storage and Performance Monitoring Using Innovative Nanocomposite Sensors, *Research Universities Support Program*, Kabul edildi, Sözleşme aşamasında, 2026-2028.
3. Development of Innovative Joining Methods for Structural Composite Parts in Aviation Applications, Characterization of Environmental Durability and Mechanical Performance, *TÜBİTAK 1003 Project*, Project Manager, 2020-2023.
4. Design, Optimization, and Prototype Manufacturing of High-Pressure Resistant Lightweight Composite Tank Materials and Systems for Hydrogen Storage and Distribution, *TÜBİTAK 1003 Project*, Researcher, 2016-08/2019.
5. Development of Carbon Fiber Reinforced Polyamide-Based Composite Structures, *IZTECH Scientific Research Project*, Project Manager, 2016-2018.
6. Design of Composite Material-Based Leaf Spring Systems for the Automotive Sector and Development of Production Techniques, Funded by Ministry of Industry of Turkey, *SANTEZ Project*, Project Manager, 2012-2014.
7. Type 4 Composite CNG Tank Development Project for Automotive Applications, *TÜBİTAK-TEYDEB Project*, TOFAŞ A.Ş. Project, Project Consultant, 2012-2013.
8. Development of Liquid Armor Systems with Increased Thickness through Shear, *(Funded by SSM, Undersecretariat for Defence Industries Project, with Barış Elektrik A.Ş.)*, 2012-2014.
9. Development of Antibacterial Composite Stoneware Production, Funded by Ministry of Industry of Turkey, *SANTEZ Project*, Project Manager, 2012-2014.
10. Development of Composite Materials from Glass/ Thermoplastic Hybrid Fibers, *TÜBİTAK-TEYDEB Project* (with TELATEKS Inc.), Researcher, 2009-2010.
11. Development of Blast-Resistant Armor, *Ministry of Defence Project* (TÜBİTAK-supported project, co-executed with Barış Elektrik A.Ş. and Gazi University), Project Manager, 2008-2010.
12. Development of Lightweight Composite Armor Materials, *DPT Project*, 2003K120690, Project Manager, 2003-2005.
13. Development of Radar Absorbing Composites, *KOSGEB Project*, Project Manager, 2011-2013.
14. Development of High Ballistic Resistant Lightweight Composite Armor Materials, *IZTECH Scientific Research Project*, 2002 MÜH 06, Project Manager, 2002-2004.
15. Establishment of Production Technologies for Lightweight, Low-Cost Polymer-Based Composite Materials and Development of Composite Armor Materials for Defence Industry, *IZTECH Scientific Research Project*, MÜH 21, Project Manager, 2001-2002.

16. Production and Characterization of Ceramic Matrix Composites by Polymer Pyrolysis Method at Low Temperatures, **TÜBİTAK Project**, MİSAG 215, Project Manager, 2002-2005.
17. Development of Clay/EPDM-Based Nanocomposites, **ARÇELİK Inc. and TÜBİTAK Supported Project**, Project Manager, 2006-2007.
18. Development and Characterization of Nanocomposite Materials from Polymer and Layered Clay Structures, **TÜBİTAK Project**, Project Manager, 2005-2007.
19. Development of Carbon Nanotube (CNT)/Polyester Nanocomposites, **JÜLICH-TÜBİTAK International Research Project**, JÜLICH-TÜBİTAK MİSAG -5, (*in collaboration with Technical University Hamburg-Harburg, Germany*), Project Manager, 2004-2007.
20. Development of Polymer Composites and Sintered Products from Tungsten-Based Nanostructured and Nanocomposite Powders Produced by Mechanical Alloying and Mechanochemical Methods, **TÜBİTAK Project**, in collaboration with ITU Metallurgical and Materials Engineering Department, Researcher, 2005-2007.
21. Creation of Tenzoresistors with Low Thermal Coefficient of Tenzosensitivity, **NATO Collaborative Linkage Grant**, PST.CLG.978434, Principal Investigator, 2002-2004.
22. Development and Characterization of Nanocomposite Materials, **IZTECH Scientific Research Project**, 2003 IZTECH30, Project Manager, 2003-2005.
23. Effect of the Polymer Composite Pipe Material Microstructure on Material Strength, Mechanical and Thermal Properties for Geothermal Applications, **IZTECH Scientific Research Project**, 2002 MÜH 05, Project Manager, 2002-2003.
24. Crushing Behavior of Closed-Cell Aluminum-Filled Aluminum and Polymer Composite Multi-Cells, **TÜBİTAK Project**, MİSAG 227, Researcher, 2002-2004.
25. Production and Characterization of Superconducting MgB₂ Wires, **TÜBİTAK Project**, TBAG 2215, Researcher, 2002-2004.
26. Development and Characterization of Porous Materials for High-Pressure Ceramic Molding, **Industry-Supported Research Project** (supported by Ege Vitriye Inc.), Project Manager, 2001-2003.
27. Thin Film Advanced Material Applications by Sputtering Method: Production of Superconducting and Semiconductor Circuit Elements, Metal-Polymer Surface Coatings, **DPT Project**, 2002K120390, Researcher, 2002-2005.
28. Effects of Thermoplastic Preforming Binder on Properties of S2-Glass Fabric Reinforced Epoxy Composites, **Postdoctoral Research Project**, **Center for Composite Materials, University of Delaware**, USA, 2000.
29. Characterization of Fiber/Matrix Interphase Properties under Various Loading Conditions, Department of Materials Science and Engineering, University of Delaware, (*Supported by the US Army Research Laboratory's Composite Materials Research Program and the Defense University Research Instrumentation Program (DURIP) of the US Army Research Office*), **PhD Project**, USA, 1996-2000.
30. Microstructure and Physical Characterization of Titania-Cored Glass-Ceramics Developed from Waste Iron-Steel Slag, ITU, Chemistry-Metallurgy Faculty, **Graduation Project**, 1991-1992.

Ph.D THESIS ADVISOR

- 2008** Seyhan, A. T., “Development of Multi and Double Walled Carbon Nanotubes (CNTs)/Vinylester Nanocomposites”
- 2011** Baştürk, S. B., “Development and Mechanical Characterization of Anti-Blast Sandwich Composites for Explosive Effect”
- 2017** Beylergil, B., “Toughening of Carbon Fiber-Based Composites with Electrospun Fabric Layers”
- 2019** Kangal, S., “Modeling, Simulation and Analysis of Type-III Composite Overwrapped Pressure Vessels for High-Pressure Gas Storage”
- 2020** Ay, Z., “Performance Improvement of Composite Materials Used as Hydrogen Storage Tanks by Microstructural Modifications”
- 2020** Kartav, O., “Design and Production of Light-Weight Pressure-Resistant Composite Tank Materials and Systems for Hydrogen Storage”
- 2021** Uz, Y. C., “Development and Characterization of Innovative Fiber-Reinforced Prepregs and Their Composites Containing Functional Fillers”
- 2021** Güneş, M. D., “Examination of Fatigue Behaviour of Carbon Fiber-Reinforced Polymer Composites”

- 2024** Türkdoğan Damar, C., “Improving the Joining Performance of Carbon Fiber/PEEK-Based Thermoplastic Composites with Laser Surface Treatment”
- 2024** Martin, S., “Designing Composite-Based Cylindrical Structures and Manufacturing Composite Prototypes by Filament Winding Method”
- 2024** Kılıçoğlu, A. S., “Effects of Fiber Discontinuity in Fiber-Reinforced Polymer Matrix Composites”

MASTER THESIS ADVISOR

- 2003** Toğulga, M., “Processing and Characterization of High-Performance Piping Materials for Geothermal Applications”
- 2003** Seyhan, A. T., “Processing and Characterization of Polymer Composites with Superior Impact Resistance”
- 2004** Akkaş, H. D., “Development of Si-O-C-Based Ceramic Matrix Composites Produced via Pyrolysis of a Polysiloxane”
- 2004** Ergün, Y., “Development and Characterization of PMMA-Based Porous Materials Used for High-Pressure Casting of Sanitaryware Ceramics”
- 2005** Ünaler, E., “Development and Characterization of Light-Weight Armor Materials”
- 2006** Coşkun, A., “Contrast Enhancement by Lateral Inhibition in a Sensory Network”
- 2006** Işık, K., “Layered Silicate/Polypropylene Nanocomposites”
- 2006** Kaya, E. D., “Development of Layered Silicate/Epoxy Nanocomposites”
- 2006** Bozkurt, E., “Mechanical and Thermal Properties of Non-Crimp Glass Fiber-Reinforced Composites with Silicate Nanoparticle-Modified Epoxy Matrix”
- 2006** Altay, E., “Effect of Reaction Conditions and Organic Additives on the Morphologies of Synthetic Calcium Carbonates”
- 2007** Karal, K., “Tribological Behaviour of Polymer Nanocomposites Containing Tungsten-Based Nanoparticles”
- 2008** Karşal, Ç., “Preparation and Physical Characterization of Clay/EPDM Nanocomposites”
- 2008** Sezgin, F. E., “Mechanical Behavior and Modeling of Honeycomb-Cored Laminated Fiber/Polymer Sandwich Structures”
- 2008** Pekşen Özer, B. B., “Development of Carbon Black-Layered Clay/Epoxy Nanocomposites”
- 2009** Merter, N. E., “Effects of Processing Parameters on the Mechanical Behavior of Continuous Glass Fiber/Polypropylene Composites”
- 2009** Gurusçu, A., “Joining and Interfacial Properties of Aluminum/Glass Fiber-Reinforced Polypropylene Sandwich Composites”
- 2010** Sayhan, İ., “Use of Fly Ash as an Alternative Filler Material in PVC Plastics”
- 2011** Erdoğan, T., “Development of Liquid Armor Materials and Rheological Behavior of Shear-Thickening Fluids”
- 2013** Kangal, S., “Development of Radar-Absorbing Composite Structures”
- 2013** Öztoprak, N., “Design of Composite-Based Leaf Spring Systems for the Automotive Sector”
- 2013** Yıldız, S., “Synthesis and Rheological Behavior of Shear-Thickening Fluids for Liquid Armor Applications”
- 2013** Yağmur, S., “Investigation of Environmental Durability of Carbon Fiber/Epoxy Composites”
- 2013** Güneş, M. D., “Development of Process Techniques for Composite-Based Leaf Spring Systems”
- 2013** Çolpankan, O., “Development of Liquid Body Armor Systems”
- 2014** Kızıltepe, E., “Preparation and Characterization of Calcite (CaCO₃) Particulate-Filled Thermoplastic Composites”
- 2015** Abatay, E., “Development of Antibacterial Polymer-Based Nanocomposite Materials”
- 2016** Okur, M. Z., “Development of Aluminum Honeycomb-Cored Carbon Fiber-Reinforced Polymer Composite-Based Sandwich Structures”
- 2019** Aydın, M., “Development of Fiber-Reinforced Cylindrical Composite Structures by Filament Winding Technique”
- 2019** Sandallı, H., “Investigation of Mechanical Properties and Fatigue Performance of Carbon-Glass Fiber-Reinforced Epoxy Hybrid Composites”

- 2019** Türkdogan, C., “Development of Adhesively Bonded Glass Fiber-Reinforced Polypropylene/Aluminum-Based Fiber Metal Laminates”
- 2020** Üstün, H. S., “Enhancement of Ballistic Properties by the Hybridization Method of Multi-Layered Composite Panels”
- 2021** Esenoglu, G., “Improving Joining Performance of Composites by Electrospinning of Nanofibers”
- 2022** İplikçi, H., “Development of Joining Techniques for Carbon Fiber-Based Polymer Matrix Composites”
- 2023** Nuhoğlu, K., “Analysis of Adhesively Bonded Composite Aerospace Structures Developed by Laser Surface Treatment”
- 2023** Tunca Taşkıran, S., “Effects of Zirconia and Hydroxyapatite Nanoparticles on the Mechanical Properties of Resin-Based Dental Composites”
- 2023** Özkan, M., “Investigating Filament-Wound Hybrid Cylindrical Structures with Enhanced Thermal Properties by Numerical Analysis”
- 2023** Özarslan, D., “Development and Experimental Characterization of Filament-Wound Hybrid Cylindrical Structures with Enhanced Thermal Properties”
- 2023** Yeke, M., “Improving Mechanical Properties of Adhesive Joints in Carbon Fiber-Reinforced Polymer Composites by Incorporation of Graphene-Added Electrospun Polymer...”
- 2024** Çerçi, N., “Investigation of the Mechanical and Physical Properties of Barium Glass- and Zirconia Nanoparticle-Filled Resin-Based Dental Composites”
- 2024** Gürbüz, A. A., “Effects of Surface Treatments on Fatigue Performance of Adhesively Bonded Single-Lap-Joint Carbon Fiber-Based Polymer Composites”
- 2025** Özcan, O., “Design, Simulation and Optimization of High-Pressure Type-IV Composite Pressure Vessels Reinforced with Graphene Nanoplatelets for Hydrogen Storage...”
- 2025** Ulaşlı, M. E., “Development and Production of Graphene-Reinforced High-Pressure Composite Vessels Based on Filament Winding Technology”

COURSES TAUGHT/DEVELOPED:

Taught undergraduate and graduate courses at İzmir Institute of Technology

ME 150 Materials Science and Engineering I
 ME 250 Materials Science and Engineering II
 ME 321 Manufacturing Processes
 ME 490 Introduction to Composite Materials
 ME 507 Analytical Techniques in Materials Science
 CHE 524 Composite Materials
 ME 510 Fracture Mechanics

SCIENTIFIC CONFERENCES AND WORKSHOPS ORGANIZED

- Chair, Workshop on "Joining and Bonding of Composites: Vessels and Cylindrical Structures,"** İzmir Institute of Technology (IZTECH), **June 16, 2022.** Organized a national workshop with participation from 35 companies and 6 universities, focusing on composite joining technologies, structural adhesives, testing and characterization methods, and strengthening university–industry collaboration.
- Chair, Workshop on "Composite-Based Overwrapped Pressure Vessels and Cylindrical Structures,"** İzmir Institute of Technology (IZTECH), İzmir, Türkiye, **December 12–13, 2019.** The workshop covered composite pressure vessels, manufacturing and testing technologies, and advanced applications in hydrogen storage, aerospace, automotive, and defense.
- Co-Chair, International Polymeric Composites Symposium (IPC 2024),** İzmir, Türkiye, **2024.**
- Co-Chair and Symposium Organizer, International Porous and Powder Materials Symposium (PPM 2013, 2014, and 2015),** İzmir, Türkiye.
- Member, Organizing Committee, NanoTR-6 Conference, İzmir, Türkiye, 2010.
- Organizer, IZTECH Project Fair 2008, Tepekule Convention and Exhibition Center and Kemalpaşa Organized Industrial Zone, İzmir, Türkiye, 2008.

7. Member, Scientific Committee, Polymer Composites Symposium, İzmir, Türkiye (2006, 2008, 2010, 2012, and 2014).
8. Member, Scientific Committee, Defense Technologies Congress, Ankara, Türkiye (2006 and 2008).

PROFESSIONAL MEMBERSHIPS / ACTIVITIES:

- | | |
|--|------------------|
| 1. ASM (American Society of Materials) | 1996 – 1998 |
| 2. Board Member of the Aviation and Space Cluster Association (HUKD) | 2012-present |
| 4. Honorary Member of the Composite Manufacturers Association | 2017-present |
| 5. Co-Chair of the International Porous and Powder Materials Symposium | 2013, 2014, 2015 |
| 6. Co-Chair of the International Polymeric Composites Symposium | 2024-2025 |

HONORS AND AWARDS:

- | | |
|--|-----------|
| 1. Progress Award, University of Delaware, Center for Composite Materials, | 2000 |
| 2. Graduate Research Award, University of Delaware, Department of Materials Science and Engineering | 1999 |
| 3. Graduation Honor, 2 nd highest GPA İstanbul Technical University, | 1992 |
| 4. Graduate Education Scholarship by Higher Education Council (YOK) of Turkey to pursue M.S. and Ph.D. degrees in the U.S.A. | 1993-1999 |

REFERENCES:

Available upon request.