Res. Asst. OĞUZ ERYILMAZ

Personal Information

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Biography

Oğuz ERYILMAZ is a research associate at Marmara University, Faculty of Technology, Department of Textile Engineering in Istanbul, Turkey. He is currently a Ph.D. candidate in the Department of Textile Engineering at Marmara University. Starting from October 2019, He is a guest research associate at RWTH Aachen University in ITA (Institut für Textiltechnik). His main research area is Textile-Reinforced Composites which comprise a textile form as 2D/3D braided, woven, and multiaxial fabrics. His specific research fields are:

Radial Braiding and Automated Fiber Placement (AFP) Technology for Composite Structures

Composite Pressure Vessel Manufacturing Process for Hydrogen Storage Systems

Thermoset and Thermoplastic Composite Structures Used in Aircraft and Space

Natural Fiber Composite Application for Sustainable Transportation

His hobbies are mostly related to aviation. He has been one of the CTO's of Rocket Teams at Marmara University for 3 years. He has been making static model aircraft for 7 years. He is especially interested in commercial aircraft and fighter jet. Currently, there are 5 large body, 7 narrow-body, 7 fighter jets and 1 piston engine in his collection. He frequently visits aviation museums (Technik Museum Sinsheim, Dornier Museum Friedrichshafen, BMW Welt Museum, Turkish Air Force Museum Istanbul, etc.). Also, he enjoys watching Formula 1 races and investigating effects of composite technology to the F1 cars especially for flexi-rear wing and aeroelasticity of carbon composites.

Education Information

Doctorate, Marmara University, Institute For Graduate Studies İn Pure And Applied Sciences, Department Oftextile Engineering, Turkey 2017 - Continues
Undergraduate, Pamukkale University, Faculty Of Engıneerıng, Department Of Mechanıcal Engıneerıng, Turkey 2013 - Continues
Postgraduate, Marmara University, Institute For Graduate Studies İn Pure And Applied Sciences, Department Oftextile Engineering, Turkey 2016 - 2017
Undergraduate, Bursa Uludağ University, Faculty of Engineering, Department of Textile Engineering, Turkey 2007 - 2011

Foreign Languages

German, B1 Intermediate
English, C1 Advanced

Certificates, Courses and Trainings

Vocational Training, ANSYS PrepPost (ACP) for Modelling and Analyzing Composite, ANSYS, 2020
Vocational Training, Basic Principle of KUKA Robotic KR-C2 and KR-C4 Working and Programming , ITA RWTH Aachen University, 2019
Vocational Training, ABAQUS for Adhesive and Composite Joints, ABAQUS, 2019
Vocational Training, ANSYS Workbench, ANSYS, 2018
Vocational Training, MATLAB&Simulink, UDEMY, 2018
Personal Evolution, Succesfully Accomplished All Exam Stages (DLR-1, HR, CRM, SHT-MED) of Turkish Airlines for First Officer Nominee to be Trained , Turkish Airlines, 2018
Foreign Language, IELTS, IDP IELTS Turkey, 2017
Vocational Training, SolidWorks, SolidWorks Turkey, 2017
Vocational Training, Instron 4411 Tensile Strength Tester, ITW Test ve Ölçüm Hizmetleri San. ve Tic. Ltd. Şti., 2016
Science and Technology Policy, Aviation Quality System and Certification Training, Istanbul Development Agency, 2015
Foreign Language, German Language In Line With The European Language Portfolio, American Cultural Association, 2012
Finance, E-Foreign Trade Specialist Education, Yorktrade Foreign Trade Institute, 2008

Dissertations

Doctorate, High Pressure/Fuel Vessel Reinforced with Carbon Fiber Composite Design and Production for Aerospace Applications, Marmara University, Institute For Graduate Studies İn Pure And Applied Sciences, Department Oftextile Engineering, 2021
Postgraduate, Development of the Mechanical Properties of Composite Structures Reinforced with Carbon Fiber, Marmara University, Institute For Graduate Studies İn Pure And Applied Sciences, Department Oftextile Engineering, 2017

Research Areas

Pressure Vessels and Piping, Hydrogen Technologies and Fuel Cells , Machine Elements, Machine Design, Computer Aided Design and Manufacturing, Mechanisms, Finite Element Methods, Textile Materials, Textile Physics, Textile Machinery, Technical Textiles, Composites, Non Metallic Materials Materials, Fuel tank

Academic Titles / Tasks

Research Assistant, Rheinisch-Westfaelische Technische Hochschule Aachen, Faculty of Mechanical Engineering, Institute of Textile Technology, Institut für Textiltechnik (ITA), 2019 - Continues
Research Assistant, Marmara University, Faculty Of Technology, Textile Engineering, 2014 - Continues

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

I. **Effect of silane coupling treatments on mechanical properties of epoxy based high-strength carbon fiber regular (2 x 2) braided fabric composites**
ERYILMAZ O., SANCAK E.
POLYMER COMPOSITES, vol.42, no.12, pp.6455-6466, 2021 (Journal Indexed in SCI)
II. **Evaluation of the interaction between proliferation, oxidant-antioxidant status, Wnt pathway, and apoptosis in zebrafish embryos exposed to silver nanoparticles used in textile industry**
Eryılmaz O., Ates P. S. , Unal I., Ustundag U. V. , Bay S., Alturfan A. A. , Yiğitbaşı T., Emekli-Alturfan E. I. , Akalin M.
JOURNAL OF BIOCHEMICAL AND MOLECULAR TOXICOLOGY, vol.32, 2018 (Journal Indexed in SCI)

Articles Published in Other Journals

I. **Investigation of the Water–Based Ink Hold onto the Thermoplastic Composites Reinforced with Sisal Fibers**
ERYILMAZ O., SÖNMEZ S., OVALI S., kumar j.
Journal of Textile Science Fashion Technology, vol.5, no.3, 2020 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

I. **Investigation of Spacer Fabric as Vibration Reduction Material in Rocket Avionic Systems by Using Finite Element Method**
Öz M. E. , Yıldırım Y. E. , Eryılmaz O.
8. International Fiber and Polymer Research Symposium (8. ULPAS), Eskişehir, Turkey, 18 - 19 June 2021, pp.1-2

II. **Investigation of Thermal Characteristics of the Polyurethane Composites Reinforced with the Fibers Obtained from Agricultural Wastes**
Olcay H., Koçak E. D. , Eryılmaz O.
ICNF 2021 - 5th International Conference on Natural Fibers, Lisbon, Portugal, 17 - 19 May 2021, pp.193-195

III. **Insulation of Parachute Mechanism of Glass Fiber Reinforced Composite Rocket Body Produced by Filament Winding Method with FR Fabrics**
Eryılmaz O., Yıldırım Y. E. , Demir E., Öz M. E.
Uşak Üniversitesi TTO 1.Ar-Ge ve Tasarım Proje Pazarı: UTTO, Uşak, Turkey, 14 - 16 October 2020, pp.1-19

IV. **Development of Bio-Composite Structures for Interior Noise Reduction in Automobiles**
Sancak E., Özen M. S. , Yüksek M., Usta I., Atak O., Beyit A., Pars A., Eryilmaz O.
Aachen – Dresden – Denkendorf International Textile Conference, Aachen, Germany, 29 - 30 November 2018

V. **Comparison of Mechanical Properties of Epoxy Composites Reinforced with Hybrid (Carbon-Aramid) and Carbon Woven Fabrics**
Eryilmaz O., Sancak E., Yüksek M.
Aachen – Dresden – Denkendorf International Textile Conference, Aachen, Germany, 29 - 30 November 2018

VI. **An Investigation on Thermal Conductivity Properties of Epoxy Based Twill Fabrics Carbon Composites**
Eryilmaz O., Ovali S., Sancak E., Yüksek M., Akalin M.
8th International Textile Conference Evolution of Techinical Textiles, İstanbul, Turkey, 14 - 16 May 2018

VII. **Mechanical and Electromagnetic Shielding Properties of Stainless Steel Yarn Reinforced Composites**
Sancak E., Usta I., Yüksek M., Uzun M., Eryilmaz O., Pars A., Ihlamur M.
14th Asian Textile Conference, Victoria-City, Hong Kong, 27 - 30 June 2017

VIII. **An Investigation on Mechanical Properties of Epoxy Based Woven Fabrics Carbon Composites**
Eryilmaz O., Akalin M., Yüksek M., Sancak E.
14th Asian Textile Conference, Victoria-City, Hong Kong, 27 - 30 June 2017

IX. **Development of the Mechanical Properties of the Composite Structures with Reinforced Carbon Fiber**
Eryilmaz O., Akalin M., Yüksek M., Sancak E.
10th Asian-Australasian Conference on Composite Materials (ACCM-10), Busan, South Korea, 16 - 19 October 2016

Supported Projects

Eryılmaz O., Project Supported by Other Official Institutions, Analysis of the Fiber Lay-Up Behavior in the Dome Area of Braided Composite Pressure Vessels (CPV) Produced by Radial Braiding and Novel Multi Filament Winding (MFW) Methods, 2021 - 2022

Eryılmaz O., Öz M. E. , TUBITAK Project, Using Spacer Fabric as a Method of Reducing Vibration in Rocket Electronics Systems, 2021 - 2021
Eryılmaz O., TUBITAK Project, Design, Production and Mechanical Properties of Carbon Fiber Reinforced Composite Pressure Vessel Produced by Radial Braiding and Braidtrusion Methods, 2020 - 2021
Eryılmaz O., Project Supported by Other Official Institutions, High Pressure/Fuel Vessel Reinforced with Carbon Fiber Composite Design and Production for Aerospace Applications, 2019 - 2020
Akalın M., Eryılmaz O., Project Supported by Higher Education Institutions, Development of Mechanical Properties of the Composites with Reinforced Carbon Fiber, 2016 - 2018

Memberships / Tasks in Scientific Organizations

Society for the Advancement of Material and Process Engineering (SAMPE), Member, 2021 - Continues, United States Of America

Citations

Total Citations (WOS):9
h-index (WOS):1

Scholarships

Analysis of the Fiber Lay-Up Behavior in the Dome Area of Braided Composite Pressure Vessels (CPV) Produced by Radial Braiding and Novel Multi Filament Winding (MFW) Methods, Official Institutions of Foreign Countries, 2021 - 2022
Design, Production and Mechanical Properties of Carbon Fiber Reinforced Composite Pressure Tanks with Radial Braiding and Braidtrusion Methods, TUBITAK, 2020 - 2021
High Pressure/Fuel Vessel Reinforced with Carbon Fiber Composite Design and Production for Aerospace Applications, YOK, 2019 - 2020
An Investigation on Mechanical Properties of Epoxy Based Woven Fabrics Carbon Composites, TUBITAK, 2017 - 2017