

Asst. Prof. ÇAĞATAY YILMAZ

Personal Information

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Education Information

Doctorate, Sabanci University, Faculty Of Engineering And Natural Sciences, Department Of Materials Science And Engineering, Turkey 2013 - 2018

Postgraduate, Sabanci University, Faculty Of Engineering And Natural Sciences, Department Of Materials Science And Engineering, Turkey 2011 - 2013

Dissertations

Doctorate, Monitoring Micro-Damage Accumulation Based on Reduction in Elastic Properties Using Fiber Bragg Grating Sensors, and Acoustic Emission and Thermography Methods in Fiber Reinforced Polymeric Composites , Sabanci University, Faculty Of Engineering And Natural Sciences, Department Of Materials Science And Engineering, 2018

Postgraduate, Manufacturing of Microcapsules With Liquid Core and Their Self-Healing Performance In Epoxy for Resin Transfer Moulding, Sabanci University, Faculty Of Engineering And Natural Sciences, Department Of Materials Science And Engineering, 2013

Research Areas

Mechanical Engineering, Solid Mechanics, Fracture Mechanics, Finite Element Methods, Mechanical Testing, Metallurgical and Materials Engineering, Testing and Control of Materials, Mechanical Properties, Nondestructive Testing, Composites, Adhesion and Adhesives, Polymeric Materials, Material Characterization

Academic Titles / Tasks

Assistant Professor, Abdullah Gul University, Mühendislik Fakültesi, Makine Mühendisliği, 2020 - Continues

Courses

Thermodynamics II, Undergraduate, 2020 - 2021

Composite Materials, Undergraduate, 2020 - 2021

Dynamics, Undergraduate, 2020 - 2021

Fluid Mecanics, Undergraduate, 2020 - 2021

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

- I. An experimental study on tensile and bending properties of biaxial warp knitted textile composites**
Demircan O., Yilmaz Ç., Kocaman E. S. , Yildiz M.

ADVANCED COMPOSITE MATERIALS, vol.29, no.1, pp.73-88, 2020 (Journal Indexed in SCI)

- II. **Experimental study on dynamic behavior of woven carbon fabric laminates using in-house piezoelectric sensors**
Ali H. Q. , Tabrizi I. E. , Khan R. M. A. , Zanjani J. S. M. , Yilmaz Ç., Poudeh L. H. , Yildiz M.
SMART MATERIALS AND STRUCTURES, vol.28, no.10, 2019 (Journal Indexed in SCI)
- III. **Semi-intrinsic self-healing performance of liquid-cored microcapsules in epoxy matrix**
Yilmaz Ç., Yildiz M., Menciloglu Y.
ADVANCES IN POLYMER TECHNOLOGY, vol.37, no.5, pp.1435-1443, 2018 (Journal Indexed in SCI)
- IV. **The performance of embedded fiber Bragg grating sensors for monitoring failure modes of foam cored sandwich structures under flexural loads**
Kocaman E. S. , YILMAZ Ç., Deniz A., Yildiz M.
JOURNAL OF SANDWICH STRUCTURES & MATERIALS, vol.20, no.5, pp.553-577, 2018 (Journal Indexed in SCI)
- V. **A hybrid damage assessment for E-and S-glass reinforced laminated composite structures under in-plane shear loading**
YILMAZ Ç., Akalin C., Gunal I., Celik H., Buyuk M., Suleman A., Yildiz M.
COMPOSITE STRUCTURES, vol.186, pp.347-354, 2018 (Journal Indexed in SCI)
- VI. **A study on correlating reduction in Poisson's ratio with transverse crack and delamination through acoustic emission signals**
YILMAZ Ç., Yildiz M.
POLYMER TESTING, vol.63, pp.47-53, 2017 (Journal Indexed in SCI)
- VII. **Monitoring the interface and bulk self-healing capability of tri-axial electrospun fibers in glass fiber reinforced epoxy composites**
Zanjani J. S. M. , Okan B. S. , Yilmaz Ç., Menciloglu Y., Yildiz M.
COMPOSITES PART A-APPLIED SCIENCE AND MANUFACTURING, vol.99, pp.221-232, 2017 (Journal Indexed in SCI)
- VIII. **Monitoring the Damage State of Fiber Reinforced Composites Using an FBG Network for Failure Prediction**
Kocaman E. S. , Akay E., Yilmaz Ç., Türkmen H. S. , Misirlioglu I. B. , Suleman A., Yildiz M.
MATERIALS, vol.10, no.1, 2017 (Journal Indexed in SCI)
- IX. **Monitoring Poisson's Ratio Degradation of FRP Composites under Fatigue Loading Using Biaxially Embedded FBG Sensors**
Akay E., Yilmaz Ç., Kocaman E. S. , Türkmen H. S. , Yildiz M.
MATERIALS, vol.9, no.9, 2016 (Journal Indexed in SCI)
- X. **Monitoring Poisson's ratio of glass fiber reinforced composites as damage index using biaxial Fiber Bragg Grating sensors**
YILMAZ Ç., Akalin C., Kocaman E. S. , Suleman A., Yildiz M.
POLYMER TESTING, vol.53, pp.98-107, 2016 (Journal Indexed in SCI)
- XI. **Prediction of fatigue response of composite structures by monitoring the strain energy release rate with embedded fiber Bragg gratings**
Keulen C. J. , Akay E., Melemez F. F. , Kocaman E. S. , Deniz A., Yilmaz Ç., BOZ T., Yildiz M., Türkmen H. S. , Suleman A.
JOURNAL OF INTELLIGENT MATERIAL SYSTEMS AND STRUCTURES, vol.27, no.1, pp.17-27, 2016 (Journal Indexed in SCI)
- XII. **Effect of fiber densities on impact properties of biaxial warp-knitted textile composites**
Demircan O., YILMAZ Ç., Kocaman E. S. , Tang S., Hamada H., Yildiz M.
JOURNAL OF REINFORCED PLASTICS AND COMPOSITES, vol.34, no.16, pp.1287-1297, 2015 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Poisson's Ratio as a Damage Index Sensed by Dual-Embedded Fiber Bragg Grating Sensor**

Yılmaz Ç., Akay E., Kocaman E. S. , Yildiz M.

Annual Conference and Exposition of the Society-for-Experimental-Mechanics on Experimental and Applied Mechanics, California, United States Of America, 8 - 11 June 2015, pp.17-24

Citations

Total Citations (WOS):109

h-index (WOS):7

Scholarships

Tübitak 2214-A International Research Fellowship Program for PhD Students, TUBITAK, 2017 - 2017

Awards

Yılmaz Ç., Gürsel Sönmez Araştırma Ödülü, Sabancı Üniversitesi, June 2018

Yılmaz Ç., In-situ structural health monitoring of composite materials with embedded fiber optic sensors , Tübitak, October 2015

Yılmaz Ç., Akay E., In-situ structural health monitoring of composite materials with embedded fiber optic sensors, Ytü İeee, May 2015

Non Academic Experience

University, Sabancı University Composite Technologies Center Of Excellence, Advanced Composite Manufacturing Laboratory

Company, TEMSA, Structural Design

Company, Grafentek, Ortak