

Asst. Prof. Alperen ACAR

Personal Information

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Education Information

Doctorate, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Makine Mühendisliği, Turkey 2011 - 2017

Postgraduate, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Makine Mühendisliği, Turkey 2009 - 2011

Undergraduate, Yıldız Teknik Üniversitesi, Faculty of Mechanical Engineering, Makine Mühendisliği, Turkey 2004 - 2008

Biography

Alperen ACAR was born in 1986, TURKEY. He received his MSc. degree in mechanical engineering from Istanbul Technical University in 2011 and his Ph.D. degree at Graduate School of Natural and Applied Sciences of Yildiz Technical University, Istanbul in 2017. He is also working as a research assistant at mechanical engineering department of Yildiz Technical University since 2009. His research interests include characterization and modeling of mechanical behavior of polymeric materials, viscoelasticity, Finite element analysis.

Foreign Languages

English, C1 Advanced

Research Areas

Mechanical Engineering, Construction and Manufacturing, Computer Aided Design and Manufacturing, Mechanical, Finite Element Methods, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2017 - Continues

Research Assistant, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2009 - 2017

Academic and Administrative Experience

Advising Theses

Acar A., Dijital Video Gösterici Ürünlerin Ekranlarında Kullanılan Camların Kırılma Mekanizmasının Araştırılması Ve Karakterizasyonu, Postgraduate, C.AKAN(Student), 2019

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

- I. **Mechanical characterization of Araldite LY 564 epoxy: creep, relaxation, quasi-static compression and high strain rate behaviors**
Bakbak O., Birkan B. E. , Acar A., Çolak Çakır Ö. Ü.
Polymer Bulletin, vol.1, no.1, pp.1-17, 2021 (Journal Indexed in SCI Expanded)
- II. **Investigation of tensile, viscoelastic, and viscoplastic behavior of polylactic acid manufactured by fused deposition modeling**
İSTİF İ., Feratoglu K., Colak Ö. Ü. , ACAR A.
Journal of Testing and Evaluation, vol.49, no.4, 2019 (Journal Indexed in SCI)
- III. **Cooperative-VBO model for polymer/graphene nanocomposites**
ACAR A., Colak O., Correia J., Ahzi S.
Mechanics of Materials, vol.125, pp.1-13, 2018 (Journal Indexed in SCI)
- IV. **Synthesis and characterization of graphene-epoxy nanocomposites**
Acar A., Colak O. U. , Uzunsoy D.
MATERIALS TESTING, vol.57, pp.1001-1005, 2015 (Journal Indexed in SCI)
- V. **Investigation of Hygro-Thermal Cycle Effects on the Membranes of Proton Exchange Membrane Fuel Cells**
Colak O., ACAR A., Ergenekon E.
JOURNAL OF TESTING AND EVALUATION, vol.42, no.2, pp.285-290, 2014 (Journal Indexed in SCI)
- VI. **Modeling of hydro-thermo-mechanical behavior of Nafion NRE212 for Polymer Electrolyte Membrane Fuel Cells using the Finite Viscoplasticity Theory Based on Overstress for Polymers (FVBOP)**
Colak O. U. , ACAR A.
MECHANICS OF TIME-DEPENDENT MATERIALS, vol.17, no.3, pp.331-347, 2013 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Creep and Relaxation Behavior of Araldite LY564 Epoxy**
Birkan B. E. , Bakbak O., Çolak Çakır Ö. Ü. , Acar A.
"Virtual Congress on Materials Science & Engineering". Materials Info 2020, 9 - 10 November 2020, pp.19
- II. **High Strain Rate and Quasi Static Behavior of Araldite LY564 Epoxy**
Bakbak O., Birkan B. E. , Acar A., Çolak Çakır Ö. Ü. , Taşdemirci A.
"Virtual Congress on Materials Science & Engineering". Materials Info 2020, Delaware, United States Of America, 9 - 10 November 2020, pp.20
- III. **MATERIAL MODEL DEVELOPMENT FOR NANOCOMPOSITES AND FINITE ELEMENTS IMPLEMENTATION**
ACAR A., ÇOLAK ÇAKIR Ö. Ü.
1st International Conference on Advances in Mechanical and Mechatronics Engineering, Ankara, Turkey, 08 November 2018, pp.1-6

IV. INVESTIGATION OF MECHANICAL BEHAVIOURS OF PLA PARTS MANUFACTURED BY FUSED DEPOSITION MODELING

İstif İ., Feratođlu K., Acar A.

56th ISC of the University of Ruse'17, Ruse, Bulgaria, 26 October 2017, pp.1-6

V. Modeling of Storage Modulus of Graphene Epoxy Nanocomposites

Acar A., Çolak Ö. Ü. , Uzunsoy D.

Fourth International Conference On Advances in Civil, Structural and Mechanical Engineering - ACSM 2016, Buri-Ram, Thailand, 7 - 08 May 2016, pp.46-49

VI. Fabrication and Mechanical Characterization of Graphene-Epoxy Nano Composites

Acar A., ÇOLAK ÇAKIR Ö. Ü. , Uzunsoy D.

6th International Conference on Polymeric Behavior, Viena, Austria, 22 September 2014, pp.1-2

VII. Investigation of Hygro-Thermal Cycle Effects on PEM Fuel Cell Membranes

ACAR A., ÇOLAK Ö., ERGENEKON E.

AMPT 2012, 01 July 2011

Supported Projects

ACAR A., Koltan U. K. , Project Supported by Higher Education Institutions, Akıtarak Sıvama İle İmal Edilmiş Namlu Malzemelerinin Karakterizasyonu, 2018 - 2020

Bođoçlu M. E. , Hasan A. G. , Acar A., TUBITAK Project, Çok katmanlı serilmiş kumaş tabakasının kesimine yönelik tezgah geliştirme, 2015 - 2017

Çolak Çakır Ö. Ü. , TÜBİTAK International Bilateral Joint Cooperation Program Project, Graphene-PMMA nanocomposite; Processing, Experimental Characterization and Modeling, 2013 - 2015

ÇOLAK ÇAKIR Ö. Ü. , ACAR A., GÖRGÜN H., ASMAZ K., TUBITAK Project, Hidro-Termal Çevrime Maruz Kalan Proton Deđişim Membranlı Yakıt Hücrelerinde Membranın Modellenmesi, 2011 - 2011

Scientific Refereeing

Polymer International, SCI Journal, January 2018

Citations

Total Citations (WOS):21

h-index (WOS):3