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Education Information

Doctorate, Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, Turkey 2021 - Continues
Postgraduate, Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, Turkey 2018 - 2021
Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, Turkey 2012 - 2018

Dissertations

Postgraduate, NUMERICAL IMPLEMENTATION AND ANALYSIS OF A POROUS PLASTICITY MODEL FOR DUCTILE DAMAGE PREDICTION, Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, 2021

Research Areas

Aeronautical and Space Engineering

Academic Titles / Tasks

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Aerospace Engineering, 2019 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Phase field modeling of fatigue crack growth retardation under single cycle overloads**
Waseem S., ERDOĞAN C., YALÇINKAYA T.
International Journal of Fatigue, vol.179, 2024 (SCI-Expanded)
II. **A numerical ballistic performance investigation of Armox 500T steel through ductile damage models**

Göçmen Y., ERDOĞAN C., YALÇINKAYA T.
Engineering Fracture Mechanics, vol.292, 2023 (SCI-Expanded)

III. **A Numerical Study on the Ballistic Performance of Projectiles Formed by Shaped Charge**
Göçmen Y., ERDOĞAN C., YALÇINKAYA T.
Journal of Applied Mechanics, Transactions ASME, vol.90, no.11, 2023 (SCI-Expanded)

IV. **Ductile failure of Inconel 718 during flow forming process and its numerical investigation**
Erdoğan C., Vural H., Karakaş A., Fenercioğlu T. O., Yalçınkaya T.
Engineering Failure Analysis, vol.152, 2023 (SCI-Expanded)

V. **Potential of high compressive ductility of ultrafine grained copper fabricated by severe plastic deformation**
Asano M., Yuasa M., Miyamoto H., Tanaka T., Erdoğan C., Yalçınkaya T.
Metals, vol.10, no.11, pp.1-12, 2020 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

I. **Phase Field Fracture Modelling of Crack Initiation and Propagation in Dual-Phase Microstructures**
Tatli B., Erdoğan C., Ozcan M. E., Yalçinkaya T.
3rd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, IWPDF 2023, İstanbul, Turkey, 4 - 06 October 2023, vol.61, pp.12-19

II. **Dwell fatigue fracture in Ti microstructures through crystal plasticity and phase field fracture frameworks**
Bulut O., Erdoğan C., Yalçinkaya T.
3rd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, IWPDF 2023, İstanbul, Turkey, 4 - 06 October 2023, vol.61, pp.3-11

III. **Experimental identification of uncoupled ductile damage models and application in flow forming of IN718**
Vural H., Erdoğan C., Karakaş A., Fenercioglu T. O., Yalçınkaya T.
26th International ESAFORM Conference on Material Forming, ESAFORM 2023, Krakow, Poland, 19 - 21 April 2023, vol.28, pp.807-816

IV. **Phase field modeling of ductile fracture and application in metal forming**
Waseem S., Erdoğan C., Yalçinkaya T.
26th International ESAFORM Conference on Material Forming, ESAFORM 2023, Krakow, Poland, 19 - 21 April 2023, vol.28, pp.1593-1602

V. **Effect of process parameters on the ductile failure behavior of flow forming process**
Erdoğan C., Vural H., Fenercioglu T. O., Yalçınkaya T.
23rd European Conference on Fracture, ECF 2022, Funchal, Portugal, 27 June - 01 July 2022, vol.42, pp.1643-1650

VI. **Numerical analysis of ballistic impact through FE and SPH methods**
Göçmen Y., Vural H., Erdoğan C., Yalçınkaya T.
23rd European Conference on Fracture, ECF 2022, Funchal, Portugal, 27 June - 01 July 2022, vol.42, pp.1736-1743

VII. **Numerical analysis and extension of a porous plasticity model for ductile failure**
Erdoğan C., Yalçınkaya T.
2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 18 - 20 August 2021, pp.117

VIII. **Ductile failure prediction during the flow forming process**
Vural H., Erdoğan C., Fenercioglu T. O., Yalçınkaya T.
2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, IWPDF 2021, Ankara, Turkey, 18 - 20 August 2021, vol.35, pp.25-33

IX. **Formulation and Implementation of a New Porous Plasticity Model**
Yalçınkaya T., Erdoğan C., Tandoğan İ. T., Cocks A.
1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials (IWPDF), Ankara, Turkey,

22 - 23 August 2019, vol.21, pp.46-51

Metrics

Publication: 14
Citation (WoS): 18
Citation (Scopus): 48
H-Index (WoS): 3
H-Index (Scopus): 5