

## Assoc. Prof. EMRE ESENER

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Sakarya University, Institute Of Science, Makine Tasarım Ve İmalat (Dr), Turkey 2010 - 2015

Postgraduate, Nigde Omer Halisdemir University, Institute Of Science, Makine Mühendisliği (YI) (Tezli), Turkey 2008 - 2010

Undergraduate, Manisa Celal Bayar University, Faculty Of Engineering, Department Of Mechanical Engineering, Turkey 2004 - 2008

### Dissertations

Doctorate, Plastik şekil verme proseslerinde form ve şekillendirme hatalarının telafi edilmesi, Sakarya University, Fen Bilimleri Enstitüsü, Makine Tasarım Ve İmalat (Dr), 2015

Postgraduate, İki eksenli gerdirme datalarının sonlu elemanlar analizlerinde kullanımının incelenmesi, Nigde Omer Halisdemir University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), 2010

### Academic and Administrative Experience

Bilecik Seyh Edebali University, 2017 - 2020

### Courses

Makine Elemanları - II, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Plastik Şekil Verme, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020

Mühendislikte Deneysel Metodlar - I, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Bitirme Projesi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Bilgisayar Destekli Sac Metal Şekillendirme Teknolojisi, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Yüksek Lisans Tez Çalışması, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

Uzmanlık Alan Dersi, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

Makine Elemanları - I, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017,

2015 - 2016

Tasarım Projesi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Mühendislikte Deneysel Metodlar - II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Mekanik Metalurji, Doctorate, 2019 - 2020, 2018 - 2019

Statik, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Mukavemet - I, Undergraduate, 2018 - 2019, 2016 - 2017, 2015 - 2016

Bilgisayar Destekli Tasarım, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Ders Dışı Etkinlikler, Undergraduate, 2017 - 2018

Mukavemet - II, Undergraduate, 2015 - 2016

Mekanizma Tekniği, Undergraduate, 2015 - 2016

## Advising Theses

ESENER E., Çok katmanlı sacların geri esneme davranışının tespiti, Postgraduate, B.YORULMAZ(Student), 2023

ESENER E., Alüminyum 6060 Alaşımının Üç Nokta Eğme Yükleme Altındaki Karakteristiğinin Farklı Proses Parametreleri ile Deneysel ve Nümerik Olarak İncelenmesi, Postgraduate, D.DEMİR(Student), 2023

ESENER E., PLA ve ABS polimerlerin hızlı prototipleme üretimi sonrası mekanik davranışlarının değerlendirilmesi, Postgraduate, R.ÇELİKELOĞLU(Student), 2023

ESENER E., Alüminyum alaşımlarının delik genişletme davranışının deneysel ve nümerik olarak incelenmesi, Postgraduate, E.NUR(Student), 2022

ESENER E., St-37 tüp profillerinin üç nokta eğme altındaki davranışlarının deneysel ve nümerik olarak değerlendirilmesi, Postgraduate, A.ÜNLÜ(Student), 2022

ESENER E., Dairesel Kesitli Boru Elemanların Mekanik Yük Altındaki Davranışlarının Deneysel ve Nümerik İncelenmesi, Postgraduate, O.CAN(Student), 2021

ESENER E., Sonlu elemanlar hesaplama parametrelerinin simülasyon süresi ve hassasiyetine etkisinin tespiti, Postgraduate, H.VATANSEVER(Student), 2021

ESENER E., Paslanmaz çelik sacların derin çekilebilirlik kabiliyetinin sonlu elemanlar analizi ile incelenmesi, Postgraduate, V.ARSLAN(Student), 2021

ESENER E., Plastisite modellerinin sac metal formlama sonlu elemanlar analizleri üzerine etkilerinin tespiti, Postgraduate, Ö.KÖLEOĞLU(Student), 2019

ESENER E., Gaz altı ark kaynağı yönteminde proses parametrelerinin yapıdaki çarpılmaya etkisinin incelenmesi, Postgraduate, R.EROL(Student), 2017

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Evaluating The Characteristics of Thin-Walled S235 Steel Under Three-Point Bending with Different Loading Parameters**  
ÜNLÜ A., ESENER E.  
Experimental Techniques, vol.47, no.6, pp.1275-1283, 2023 (SCI-Expanded)
- II. **Earing prediction of 2090-T3 aluminum-cups using a complete homogenous fourth-order polynomial yield function**  
Firat M., ŞENER B., Akşen T. A., ESENER E.  
Materialpruefung/Materials Testing, vol.64, no.10, pp.1480-1494, 2022 (SCI-Expanded)
- III. **On the prediction of strength and deformation anisotropy of automotive sheets for stamping formability analysis**  
ESENER E., Akşen T. A., Ünlü A., Firat M.  
Journal of the Brazilian Society of Mechanical Sciences and Engineering, vol.43, no.12, 2021 (SCI-Expanded)

- IV. **Accurate localization technique for stamping sheet metal parts with complex surfaces**  
ESENER E.  
Indian Journal of Engineering and Materials Sciences, vol.28, no.4, pp.409-419, 2021 (SCI-Expanded)
- V. **DETERMINING THE BENDING BEHAVIOR OF ST-37 RECTANGULAR TUBES WITH FINITE ELEMENT VALIDATION**  
ESENER E.  
Journal of Mechanics of Materials and Structures, vol.16, no.5, pp.611-624, 2021 (SCI-Expanded)
- VI. **Determining springback behavior of high-strength steels via channel forming process**  
ESENER E., SÖNMEZ E., Özsoy M., Firat M.  
Acta Physica Polonica A, vol.132, no.3, pp.1010-1012, 2017 (SCI-Expanded)
- VII. **Determination of the fatigue behavior of a wheel rim using finite element analysis**  
ESENER E., Ercan S., Firat M.  
Acta Physica Polonica A, vol.132, no.3, pp.617-619, 2017 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Analytical evaluation of plasticity models for anisotropic materials with experimental validation**  
ESENER E., Ünlü A.  
Research on Engineering Structures and Materials, vol.8, no.1, pp.75-89, 2022 (Scopus)
- II. **On the effect of numerical parameters in finite element through thickness modeling for springback prediction**  
ŞENER B., AKŞEN T. A., ESENER E., FIRAT M.  
Research on Engineering Structures and Materials, vol.8, no.4, pp.799-809, 2022 (Peer-Reviewed Journal)
- III. **Determining the Behavior of Door Impact Beam Tubes Under Three Point Bending Loading**  
KARAHAN O. C., ESENER E.  
International Journal of Automotive Science and Technology, vol.5, no.1, pp.58-62, 2021 (Peer-Reviewed Journal)
- IV. **Modeling plastic anisotropy evolution of AISI 304 steel sheets by a polynomial yield function**  
ŞENER B., ESENER E., Firat M.  
SN Applied Sciences, vol.3, no.2, 2021 (ESCI)
- V. **Evaluation of Plasticity Models Using Uniaxial Tensile Test**  
ÜNLÜ A., ESENER E., FIRAT M.  
European Mechanical Science, vol.4, no.3, pp.116-122, 2020 (Peer-Reviewed Journal)
- VI. **Plastisite Modellerinde Pekleşme Etkisinin Sonlu Elemanlar Analizi İle Tespiti**  
ESENER E.  
Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.11, no.1, pp.171-181, 2020 (Peer-Reviewed Journal)
- VII. **Predictive modelling of Trip600 steel formability performance using analytical and numerical methods**  
Kumlu C., ESENER E., Firat M.  
Engineering Research Express, vol.1, no.2, 2019 (Scopus)
- VIII. **Investigation of Notch Root Strain Behaviors Under Combined Loadings**  
AKŞEN T. A., ESENER E., FIRAT M.  
European Journal of Engineering and Natural Science, vol.3, no.1, pp.42-51, 2019 (Peer-Reviewed Journal)
- IX. **Malzeme Modellerinin Sac Metal Sonlu Elemanlar Analizi Tahmin Performansına Etkisinin Değerlendirilmesi**  
Özlem K. G., ESENER E.  
Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.6, no.1, pp.1-11, 2019 (Peer-Reviewed Journal)
- X. **Determining The Effect of Finite Element Calculation Parameters on Sheet Metal Forming Simulation Time and Accuracy**  
VATANSEVER H., ESENER E.

Avrupa Bilim ve Teknoloji Dergisi, vol.0, no.16, pp.92-108, 2019 (Peer-Reviewed Journal)

- XI. **Metal Şekillendirme Proseslerinde Sac Açınım Geometrisinin Sonlu Elemanlar Yöntemi ile Geliştirilmesi**  
ESENER E., SÖNMEZ E., FIRAT M.  
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.6, pp.79-89, 2018 (Peer-Reviewed Journal)
- XII. **Gaz Altı Ark Kaynağı İşleminde Proses Parametrelerinin Etkisinin İncelenmesi**  
EROL R., ESENER E.  
Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.4, no.1, pp.30-35, 2017 (Peer-Reviewed Journal)
- XIII. **Springback Predictions of a Dual-phase Steel Considering Elasticity Evolution in Stamping Process**  
Ozsoy M., ESENER E., Ercan S., Firat M.  
Arabian Journal for Science and Engineering, vol.39, no.4, pp.3199-3207, 2014 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Predictive Modeling Based on Angular Variations of Yield Stress Ratios and Lankford Parameters for DP800 Steel**  
ÜNLÜ A., AKŞEN T. A., ESENER E., FIRAT M.  
10th International Automotive Technologies Congress, Bursa, Turkey, 06 September 2021
- II. **Prediction of Earing Profile In Cup Drawing Test Using Hill48 Criterion**  
AKŞEN T. A., ŞENER B., ESENER E., FIRAT M.  
10th International Automotive Technologies Congress, Bursa, Turkey, 06 September 2021
- III. **Edge thinning prediction of a hole under stretching**  
AKŞEN T. A., ŞENER B., ESENER E., FIRAT M.  
5th International Iron&Steel Symposium, Karabük, Turkey, 01 April 2021
- IV. **Development of a 3-D die surface compensation method based on part springback distribution**  
ESENER E., ŞENER B., FIRAT M.  
5th International Iron&Steel Symposium, Karabük, Turkey, 01 April 2021
- V. **A Numerical Investigation on Hole Expansion Behavior of Bake Hardenable Steels**  
ŞAHİN E. N., ÇİNİ Y., ESENER E., FIRAT M.  
5th International Iron&Steel Symposium, Karabük, Turkey, 01 April 2021
- VI. **Finite Element Modeling of Stretch Drawing Process Using Bake Hardenable Steels**  
ÜNLÜ A., KAP E., ESENER E., FIRAT M.  
5th International Iron&Steel Symposium, Karabük, Turkey, 01 April 2021
- VII. **Failure Prediction in Hole Expansion Test Using Plastic Work Criterion**  
Aksen T. A., ŞENER B., ESENER E., Firat M.  
2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, IWPDF 2021, Ankara, Turkey, 18 - 20 August 2021, vol.35, pp.82-90
- VIII. **EARING PREDICTION OF A CUP DRAWING PROCESS BASED ON THE QUADRATIC HILL YIELD FUNCTION**  
AKŞEN T. A., ŞENER B., ESENER E., FIRAT M.  
3rd International Conference on Engineering Technology and Innovation, Belgrade, Serbia, 17 - 21 April 2019, vol.1, pp.30-38
- IX. **ŞEKİLLENDİRME SINIR EĞRİSİNİN TEORİK MODEL İLE TAHMİN PERFORMANSININ DEĞERLENDİRİLMESİ**  
Kumlu C., ESENER E., FIRAT M.  
International 9th Automotive Technologies Congress, 7 - 08 May 2018
- X. **BORU BÜKME İŞLEMİNDE SONLU ELEMANLAR HESAPLAMA PARAMETRELERİNİN TAHMİN PERFORMANSINA ETKİSİNİN İNCELENMESİ**  
Vatansever H., ESENER E., FIRAT M.  
9th International Automotive Technologies Congress, 7 - 08 May 2018

- XI. **SAC METAL FORMLAMA PROSESLERİNDE KARMAŞIK YÜZEYLERİN KONUMLANDIRILMASI**  
ESENER E., SÖNMEZ E., FIRAT M.  
9th International Automotive Technologies Congress, 7 - 08 May 2018
- XII. **DAİRESEL ÇENTİKLİ BİR MİLİN ORANTISAL DİNAMİK YÜKLEME ALTINDAKİ DAVRANIŞINDA ÖTELEME GERİLME ETKİSİNİN TESPİTİ**  
BAKBAK O., AKŞEN T. A., ESENER E., FIRAT M.  
9th International Automotive Technologies Congress, 7 - 08 May 2018
- XIII. **GERİ ESNEME KAVRAMININ OTOMOTİV SEKTÖRÜ AÇISINDAN DEĞERLENDİRİLMESİ VE TELAFİSİ**  
ESENER E., FIRAT M.  
9th International Automotive Technologies Congress, 7 - 08 May 2018
- XIV. **PLASTİSİTE MODELLEMENİN SAC METAL ŞEKİLLENDİRME SONLU ELEMANLAR TAHMİN HASSASİYETİNE ETKİSİ**  
ESENER E.  
9th International Automotive Technologies Congress, 7 - 08 May 2018
- XV. **DETERMINING THE EFFECT OF YIELD CRITERIAS ON PLASTICITY MODELING IN DIFFERENT PLASTIC STRAIN LEVELS**  
ŞENER B., ESENER E., FIRAT M.  
9th International Automotive Technologies Congress, 7 - 08 May 2018
- XVI. **Determining The Effects of Finite Element Calculation Parameters on Sheet Metal Forming Numerical Simulations**  
ESENER E., ÖZSOY M., ÖZSOY N., FIRAT M.  
3rd International Conference on Engineering and Natural Science, Budapest, Hungary, 3 - 07 May 2017
- XVII. **Identification of Uniaxial Tensile Test Flow Curve by Linear, Non-Linear, and Numerical Analysis**  
ESENER E., ÖZSOY M., ÖZSOY N., FIRAT M.  
3rd International Conference on Engineering and Natural Science, Budapest, Hungary, 3 - 07 May 2017
- XVIII. **Determining Formability Properties of Aircraft Materials Using Finite Element Analysis**  
ESENER E., SÖNMEZ E., FIRAT M.  
Uluslararası II. Savunma Sanayi Sempozyumu, 6 - 08 April 2017
- XIX. **Recent Trends on Sheet Metal Forming Processes in Aerospace Industry**  
ESENER E., SÖNMEZ E., FIRAT M.  
Uluslararası II. Savunma Sanayi Sempozyumu, 6 - 08 April 2017
- XX. **Comparison of Analytical and Numerical Calculations of a Cold Rolling Process**  
FIRAT M., ESENER E., Başkaya A.  
International Conference on Engineering Technology and Innovation (ICETI), 22 - 26 March 2017
- XXI. **Determining The Effect of Hardening Type on Cyclic Plasticity Modeling Using Finite Element Analysis**  
AKŞEN T. A., ESENER E., FIRAT M.  
International Conference on Engineering Technology and Innovation (ICETI), 22 - 26 March 2017
- XXII. **An all in computer engineered stamping tooling and process design procedure**  
YENİCE M., KARŞI A., ESENER E., FIRAT M.  
8th International Conference and Exhibition on Design and Production of MACHINES and DIES/MOLDS, 18 - 21 June 2015
- XXIII. **Disk Tipi Bir Jantın Köşeleme Yorulma Davranışının Sonlu Elemanlar Analizi İle İncelenmesi**  
AKDOĞAN M. Y., ESENER E., ERCAN S., FIRAT M.  
7. Otomotiv Teknolojileri Kongresi, Turkey, 26 - 27 May 2014
- XXIV. **Trip600 Çeliğinin Kare Kesit Çekilebilirliğinin Sonlu Elemanlar Tahmini**  
AKPINAR M., ESENER E., ERCAN S., ÖZSOY M., FIRAT M.  
International Iron & Steel Symposium, Karabük, Turkey, 2 - 04 April 2012
- XXV. **Panel Çekme Sonlu Elemanlar Benzetiminde Süzdürme Çubuklarının Etkin Kullanımı**  
AKPINAR M., ESENER E., ERCAN S., ÖZSOY M., FIRAT M.  
International Iron & Steel Symposium, Karabük, Turkey, 2 - 04 April 2012

- XXVI. A sensitivity analysis by using design of experiment and its application in stamping**  
ESENER E., Ercan S., Firat M.  
1st International Conference on Engineering and Applied Sciences Optimization, OPT-i 2014, Kos Island, Greece, 4 - 06 June 2014, pp.1388-1394
- XXVII. Predictive Modeling of Drawbeads Using Regression and Neural Network Techniques**  
ESENER E., FIRAT M., GÜRLER B.  
7th International Conference and Exhibition on Design and Production of Machines and Dies/Molds, Antalya, Turkey, 20 June 2013 - 23 June 2012
- XXVIII. Hızlı Prototipleme Yöntemlerinin ve Kullanım Alanlarının İncelenmesi**  
ESENER E., AKYÜZ B., DEMİR O.  
3. Mühendislik ve Teknoloji Sempozyumu, Ankara, Turkey, 29 - 30 April 2010, pp.227-234
- XXIX. 5083 H111 Alaşımında Ön Gerilmenin Geri Esnemeye Etkilerinin İncelenmesi**  
ÖZTÜRK F., TOROS S., ECE R. E., ESENER E.  
TMMOB Metalurji Mühendisleri Odası 4. Alüminyum Sempozyumu, İstanbul, Turkey, 15 - 16 October 2009