

## Assoc. Prof. ÖZGÜR EKİCİ

### Personal Information

**Email:** ozgur.ekici@hacettepe.edu.tr

**Web:** <https://avesis.hacettepe.edu.tr/ozgur.ekici>

### International Researcher IDs

ScholarID: jtNl9goAAAAJ

ORCID: 0000-0002-1370-7190

Publons / Web Of Science ResearcherID: G-6145-2013

ScopusID: 57140392500

Yoksis Researcher ID: 43627

### Education Information

Doctorate, University of Texas at Austin, The Graduate School, Mechanical Engineering, United States Of America 2002 - 2007

Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Makina Mühendisliği, Turkey 1998 - 2001

Undergraduate, Middle East Technical University, Faculty Of Engineering, Makina Mühendisliği, Turkey 1994 - 1998

### Research Areas

Mechanical Engineering, Energy, Fluid Mechanics, Thermodynamics, Heat and Mass Transfer, Computational fluid dynamics, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2014 - 2018

Lecturer PhD, Hacettepe University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2011 - 2014

### Academic and Administrative Experience

Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2015 - Continues

Hacettepe Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2014 - Continues

### Courses

Fluid Mechanics, Undergraduate, 2016 - 2017

Heat Transfer, Undergraduate, 2016 - 2017

Thermodynamics, Undergraduate, 2016 - 2017

## ADVISING 1 NESSES

- Ekici Ö., Hydrodynamic optimization of the submarine with a fully parametric cad model, Postgraduate, O.GARGI(Student), 2023
- Ekici Ö., Had bazı parametrik eniyileme metoduyla bir kanadın aerodinamik performansının artırılması, Postgraduate, M.ONUR(Student), 2022
- Ekici Ö., Evaluation of multilayer insulation performance equations available in the literature, Postgraduate, T.ER(Student), 2022
- Ekici Ö., Immersed boundary method for rotorcraft aerodynamics using openFOAM, Postgraduate, Ş.ÇAĞRI(Student), 2022
- Ekici Ö., Thermal behavior of lithium-ion batteries under normal and abuse operating conditions, Doctorate, T.ÖZDEMİR(Student), 2022
- Ekici Ö., Development of a Gas Turbine Performance Software Including Sub-Idle Region and Starting Process, Postgraduate, B.ORHAN(Student), 2022
- Ekici Ö., A thermoeconomic optimization of a binary geothermal power plant, Doctorate, Z.ÖZCAN(Student), 2021
- Ekici Ö., : investigating the effect of different rheological models on the blood flow in capillary segments, Postgraduate, M.OMAR(Student), 2021
- Ekici Ö., Rejeneratif amortisör destekli termoelektrik jeneratör ile egzoz gazlarından elektrik üretimi, Doctorate, A.AMINI(Student), 2019
- Ekici Ö., Investigation of thermal effects on tissues during laser applications, Postgraduate, U.KAYA(Student), 2019
- Ekici Ö., Development of a navier stokes solver for compressible viscous flows and coupling it with optimization codes, Postgraduate, B.PEHLİVAN(Student), 2019
- Ekici Ö., Fotovoltaik sistemlerin karşılaştırmalı yaşam döngüsü değerlendirmesi ve maliyet analizi, Postgraduate, E.FENERCİ(Student), 2019
- Ekici Ö., Cooling analysis of a long distance bus cabin using experimental and numerical methods, Postgraduate, Z.MERT(Student), 2019
- Ekici Ö., Fin optimization in a flow field induced by piezoelectric fan, Postgraduate, E.UÇ(Student), 2018
- Ekici Ö., Thermal modeling of lithium ion batteries, Postgraduate, E.GÜMÜŞSU(Student), 2017
- Ekici Ö., Air flow and temperature distribution analysis in a coach bus cabin, Postgraduate, G.GÜNEY(Student), 2016
- EKİCİ Ö., Elektrik üretim teknolojilerinin maliyetlerine derin bir bakış: Türkiye, Postgraduate, B.ELİBOL(Student), 2015
- Ekici Ö., Akış problemleri için lattice Boltzmann yöntemi ve uygulamaları, Postgraduate, Z.ÖZCAN(Student), 2015
- Ekici Ö., Modelling of thermal and water management in automotive polymer electrolyte membrane fuel cell systems, Postgraduate, A.AKROOT(Student), 2014

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

- I. **Comparative analysis of mechanical wall shear stress and hemodynamics to study the influence of asymmetry in abdominal aortic aneurysm and descending thoracic aortic aneurysm**  
Rehman M. A. U., EKİCİ Ö.  
PHYSICS OF FLUIDS, no.7, 2024 (SCI-Expanded)
- II. **Numerical and experimental investigation of the electrical and thermal behaviors of the Li-ion batteries under normal and abuse operating conditions**  
ÖZDEMİR T., EKİCİ Ö., KÖKSAL M.  
Journal of Energy Storage, vol.77, 2024 (SCI-Expanded)
- III. **Analysis of the gallium melting problem with different heating configurations**  
Çolak E., Öztop H. F., EKİCİ Ö.  
Journal of Energy Storage, vol.50, 2022 (SCI-Expanded)
- IV. **Experimental Assessment of the Lumped Lithium Ion Battery Model at Different Operating Conditions**  
ÖZDEMİR T., Amini A., EKİCİ Ö., KÖKSAL M.  
HEAT TRANSFER ENGINEERING, vol.43, no.3-5, pp.314-325, 2021 (SCI-Expanded)
- V. **A novel working fluid selection and waste heat recovery by an exergoeconomic approach for a**

**geothermally sourced ORC system**

Ozcan Z., EKİCİ Ö.

GEOTHERMICS, vol.95, 2021 (SCI-Expanded)

- VI. **Mixed convection in a lid-driven cavity with partially heated porous block**  
Colak E., EKİCİ Ö., ÖZTOP H. F.  
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.126, 2021 (SCI-Expanded)
- VII. **Thermal Performance of Horizontally/Vertically Oriented Piezoelectric Fans in Varying Fin-Array Width**  
Uc E., EKİCİ Ö.  
HEAT TRANSFER ENGINEERING, vol.42, no.15, pp.1286-1302, 2021 (SCI-Expanded)
- VIII. **A thermal model for Li-ion batteries operating under dynamic conditions**  
Amini A., ÖZDEMİR T., EKİCİ Ö., BAŞLAMIŞLI S. Ç., KÖKSAL M.  
APPLIED THERMAL ENGINEERING, vol.185, 2021 (SCI-Expanded)
- IX. **Thermodynamic analysis of a binary geothermal power plant**  
Ozcan Z., EKİCİ Ö.  
INTERNATIONAL JOURNAL OF EXERGY, vol.36, no.1, pp.76-97, 2021 (SCI-Expanded)
- X. **MHD mixed convection in a chamfered lid-driven cavity with partial heating**  
Colak E., ÖZTOP H. F., EKİCİ Ö.  
INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, vol.156, 2020 (SCI-Expanded)
- XI. **Experimental Study of Regenerative Rotational Damper in Low Frequencies**  
Amini A., EKİCİ Ö., YAKUT K.  
INTERNATIONAL JOURNAL OF AUTOMOTIVE TECHNOLOGY, vol.21, no.1, pp.83-90, 2020 (SCI-Expanded)
- XII. **Process modeling of an automotive pem fuel cell system**  
Akroot A., EKİCİ Ö., KÖKSAL M.  
INTERNATIONAL JOURNAL OF GREEN ENERGY, vol.16, no.10, pp.778-788, 2019 (SCI-Expanded)
- XIII. **Investigating the Effect of Medium Liquid Layer Circulation on Temperature Distribution in a Thermoelectric Generator Heat Exchanger Assembly**  
Amini A., EKİCİ Ö., YAKUT K.  
JOURNAL OF ENERGY RESOURCES TECHNOLOGY-TRANSACTIONS OF THE ASME, vol.141, no.4, 2019 (SCI-Expanded)
- XIV. **Lattice Boltzmann Simulation of Mixed Convection Heat Transfer in a Lid-Driven Square Cavity Filled With Nanofluid: A Revisit**  
EKİCİ Ö.  
JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME, vol.140, no.7, 2018 (SCI-Expanded)
- XV. **COMPUTATIONAL INVESTIGATION OF THE EFFECT OF TROUGH HEIGHT IN A TUBULAR SOLAR STILL ON DISTILLATE PRODUCTIVITY**  
EKİCİ Ö.  
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.38, no.1, pp.1-10, 2018 (SCI-Expanded)
- XVI. **3-D CFD modeling and experimental testing of thermal behavior of a Li-Ion battery**  
Gümüşsu E., EKİCİ Ö., KÖKSAL M.  
APPLIED THERMAL ENGINEERING, vol.120, pp.484-495, 2017 (SCI-Expanded)
- XVII. **Thermal analysis of gold nanorods heated with femtosecond laser pulses**  
Ekici O., HARRISON R. K., DURR N. J., EVERSOLE D. S., LEE M., BEN-YAKAR A.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.41, no.18, 2008 (SCI-Expanded)
- XVIII. **Geometrical and electromagnetic effects on arc propagation in a railplug ignitor**  
Ekici O., MATTHEWS R. D., EZEKOYE O. A.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.40, no.24, pp.7707-7715, 2007 (SCI-Expanded)
- XIX. **Thermal and flow fields modeling of fast spark discharges in air**  
Ekici O., EZEKOYE O. A., HALL M. J., MATTHEWS R. D.  
JOURNAL OF FLUIDS ENGINEERING-TRANSACTIONS OF THE ASME, vol.129, no.1, pp.55-65, 2007 (SCI-Expanded)

- XX. **THE OPTIMAL SPACING BETWEEN PARALLEL HEAT GENERATING BOARDS COOLED BY TURBULENT FORCED CONVECTION**  
YÜNCÜ H., EKİCİ Ö.  
Isi Bilimi Ve Teknigi Dergisi-Journal Of Thermal Science And Technology, pp.1, 2006 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Experimental Study of the Performance of a Li-Ion Battery in a Highway Driving Cycle**  
Amini A., ÖZELCİ B., ÖZDEMİR T., EKİCİ Ö., BAŞLAMIŞLI S. Ç., KÖKSAL M.  
Kocaeli Journal of Science and Engineering, vol.3, no.1, pp.1-8, 2020 (Peer-Reviewed Journal)
- II. **Akış Problemleri İçin Lattice Boltzmann Yöntemi ve Uygulamaları**  
ÖZCAN Z., EKİCİ Ö.  
Gazi Üniversitesi Fen Bilimleri Dergisi Part: C Tasarım ve Teknoloji, vol.4, pp.115-126, 2016 (Peer-Reviewed Journal)

### Books & Book Chapters

- I. **Spherical and Anisotropic Gold Nanomaterials in Plasmonic Laser Phototherapy of Cancer**  
ADELA B. Y., DANİEL E., EKİCİ Ö.  
in: Non Magnetic Metallic Nanomaterials for Life Sciences of the 10 volume series on Nanomaterials for Life Sciences, Challa Kumar, Editor, Wiley-VCH Verlag GmbH Co. KGaA., 2008

### Refereed Congress / Symposium Publications in Proceedings

- I. **Multi-UAV Base Station Deployment Maximizing Coverage Density and Network Endurance Kapsama Yoğunluğu ve Ağ Süratliliğini Enbüyüten C oklu İHA Baz İstasyonu Konuslandırılması**  
DEMİR U., TOKER C., EKİCİ Ö.  
28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Turkey, 5 - 07 October 2020
- II. **Energy-Efficient Deployment of UAV in V2X Network Considering Latency and Backhaul Issues**  
DEMİR U., TOKER C., EKİCİ Ö.  
2020 IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2020, Odessa, Ukraine, 26 - 29 May 2020
- III. **Thermal Behavior of a Li-Ion Battery in the Highway Driving Cycle**  
Amini A., Özenci B., ÖZDEMİR T., EKİCİ Ö., BAŞLAMIŞLI S. Ç., KÖKSAL M.  
ULIBTK'xx19 22th Congress of Thermal Sciences and Technology, 11 - 14 September 2019
- IV. **Energy-efficient rotary-wing UAV deployment under flight dynamics and QoS constraints**  
DEMİR U., İpek M. C., TOKER C., EKİCİ Ö.  
7th IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2019, Sochi, Russia, 3 - 06 June 2019
- V. **Experimental assessment of the lumped lithium-ion battery model**  
ÖZDEMİR T., Amini A., EKİCİ Ö., KÖKSAL M.  
12th International Conference on Computational Heat, Mass and Momentum Transfer (ICCHM2T), Rome, Italy, 3 - 06 September 2019, vol.128
- VI. **SIKIŞTIRILAMAZ SONUÇLARLA ÖN KOŞULLANDIRILAN BİR SIKIŞTIRILABİLİR NAVIER STOKES ÇÖZÜCÜSÜ VE BU KODLA YAPILAN OPTİMİZASYON ÇALIŞMALARI**  
EKİCİ Ö., PEHLİVAN B.  
VII. ULUSAL HAVACILIK VE UZAY KONFERANSI, Turkey, 12 - 14 September 2018

- VII. **Experimental and numerical investigations of heating in a bus cabin under transient state conditions**  
EKİCİ Ö., GÜNEY G.  
18th International Conference on Computational Methods and Experimental Measurements, CMEM 2017, Alicante, Spain, 4 - 06 July 2017, vol.118, pp.49-59
- VIII. **A numerical study of spark ignition**  
EKİCİ Ö., Bokka V., Ezekoye O., Matthews R.  
Fall Technical Conference of the ASME International Combustion Engine Division, Long Beach, CA, United States Of America, 24 - 27 October 2004, pp.763-772
- IX. **A WEB-course on cold forging for continuing education and training**  
Tekkaya A., Ekici O.  
10th International Cold Forging Congress, FELLBACH, Germany, 13 - 15 September 2000, vol.1555, pp.89-101

## Supported Projects

EKİCİ Ö., Project Supported by Higher Education Institutions, Fotovoltaik yapıların yaşam döngüsü analizi, 2014 - Continues

KOÇKAR B., KÖKSAL M., EKİCİ Ö., GÖRTAN M. O., Project Supported by Higher Education Institutions, Formula Student Yarışmasına Katılmak Üzere Üretilen Yarış Aracının Geliştirilmesi, 2018 - 2021

EKİCİ Ö., AMİNİ A., Project Supported by Higher Education Institutions, Titreşim hareketinde tutulan bir kontrol hacminde oluşan sirkülasyon ve konveksiyon ısı transferinin incelenmesi, 2017 - 2018

KOÇKAR B., GÖRTAN M. O., BAŞLAMIŞLI S. Ç., KÖKSAL M., EKİCİ Ö., ÜNVER Ö., YILDIRIM B., Project Supported by Higher Education Institutions, Formula Student Yarışmasına Katılmak Üzere Yarış Aracı Tasarımı ve Üretimi, 2015 - 2017

EKİCİ Ö., KÖKSAL M., Project Supported by Higher Education Institutions, Li-Ion Pillerin Normal Çalışma Koşulları ve Sıcaklığa Bağlı Hata Modları İçin Testleri ve Modellenmesi, 2015 - 2017

## Metrics

Publication: 32

Citation (WoS): 188

Citation (Scopus): 481

H-Index (WoS): 4

H-Index (Scopus): 10

## Non Academic Experience

turkish aerospace industries

the university of texas at austin

the university of texas at austin

orta doğu teknik üniversitesi