

Assoc. Prof. ÖVGÜ CEYDA YELGEL

Personal Information

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Education Information

Doctorate, University of Exeter, College Of Engineering, Mathematics And Physical Sciences, United Kingdom 2010 - 2013

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Thermoelectric Properties of V-VI Semiconductor Alloys and Nanocomposites, University of Exeter, College Of Engineering, Mathematics And Physical Sciences, 2013

Research Areas

Artificial Intelligence, Computer Learning and Pattern Recognition, Energy, Renewable energy, Material science and engineering, Nanomaterials, Condensed Matter 1: Structural, Mechanical and Thermal Properties

Academic Titles / Tasks

Associate Professor, The University of Manchester, 2023 - Continues

Associate Professor, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Elektrik ve Elektronik Mühendisliği Bölümü, 2019 - Continues

Associate Professor, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Malzeme Bilimi Ve Nanoteknoloji Muhendisligi, 2018 - 2019

Research Assistant PhD, University of Manchester, Department Of Physics And Astronomy, Physics, 2017 - 2019

Research Assistant PhD, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Malzeme Bilimi Ve Nanoteknoloji Muhendisligi, 2014 - 2018

Research Assistant, University of Exeter, College Of Engineering, Mathematics And Physical Sciences, 2010 - 2012

Academic and Administrative Experience

Head of Department, Recep Tayyip Erdogan University, MÜHENDİSLİK VE MİMARLIK FAKÜLTESİ, ELEKTRİK VE ELEKTRONİK MÜHENDİSLİĞİ, 2020 - Continues

Courses

GÜÇ SİSTEMLERİNİN ANALİZİ, Undergraduate, 2022 - 2023, 2021 - 2022
YAPAY ZEKA, Undergraduate, 2022 - 2023, 2021 - 2022
ELEKTRİK ELEKTRONİK MÜHENDİSLİĞİNDE GÜNCEL KONULAR, Postgraduate, 2022 - 2023
RASTGELE SURECLER, Undergraduate, 2022 - 2023, 2020 - 2021
OLASILIK VE İSTATİSTİK, Undergraduate, 2020 - 2021
YENİLENEBİLİR ENERJİ KAYNAKLARI, Undergraduate, 2020 - 2021
RASTGELE SÜREÇLER, Undergraduate, 2021 - 2022
OLASILIK, Undergraduate, 2020 - 2021
OLASILIK, Undergraduate, 2019 - 2020
GÜÇ SİSTEMLERİNE GİRİŞ, Undergraduate, 2020 - 2021
YENİLENEBİLİR ENERJİ KAYNAKLARI, Undergraduate, 2019 - 2020
GÜÇ SİSTEMLERİNE GİRİŞ, Undergraduate, 2019 - 2020

Jury Memberships

Appointment to Academic Staff-Assistant Professorship, Appointment to Academic Staff-Assistant Professorship, Recep Tayyip Erdoğan Üniversitesi, December, 2022
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, December, 2022
Post Graduate, Post Graduate, Recep Tayyip Erdoğan Üniversitesi, October, 2021

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Theoretical and experimental evaluation of thermoelectric performance of alkaline earth filled skutterudite compounds**
Yelgel Ö. C., Ballıkaya S.
JOURNAL OF SOLID STATE CHEMISTRY, vol.284, 2020 (SCI-Expanded)
- II. **Thermoelectric transport behaviours of n-type Mg-2 (Si,Sn,Ge) quaternary solid solutions**
Yelgel O. C., Yelgel C.
JOURNAL OF MAGNESIUM AND ALLOYS, vol.7, no.3, pp.514-521, 2019 (SCI-Expanded)
- III. **Structural and electronic properties of MoS₂, WS₂, and WS₂/MoS₂ heterostructures encapsulated with hexagonal boron nitride monolayers**
Yelgel C., Yelgel O. C., Gulseren O.
JOURNAL OF APPLIED PHYSICS, vol.122, no.6, 2017 (SCI-Expanded)
- IV. **Structural and Electronic Properties of MoS₂, WS₂, and WS₂/MoS₂ Heterostructures Intercalated with Bilayer Hexagonal Boron Nitride**
YELGEL C., YELGEL Ö. C., gulseren o.
JOURNAL OF APPLIED PHYSICS, vol.xx, pp.1-25, 2017 (SCI-Expanded)
- V. **Thermoelectric properties of Mg₂X (X = Si, Ge) based bulk and quantum well systems**
Yelgel O. C.
JOURNAL OF APPLIED PHYSICS, vol.121, no.3, 2017 (SCI-Expanded)
- VI. **Theoretical study of thermoelectric properties of p-type Mg-2 Si_{1-x}Sn_x solid solutions doped with Ga**
Yelgel O. C.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.691, pp.151-158, 2017 (SCI-Expanded)
- VII. **Theoretical study of thermoelectric properties of n-type doped Mg₂Si_{0.4}Sn_{0.6} solid solutions**
Yelgel O. C.
PHILOSOPHICAL MAGAZINE, vol.96, no.6, pp.560-575, 2016 (SCI-Expanded)

- VIII. **Thermoelectric properties of Bi₂Se₃/Bi₂Te₃/Bi₂Se₃ and Sb₂Te₃/Bi₂Te₃/Sb₂Te₃ quantum well systems**
 Yelgel O. C., Srivastava G. P.
 PHILOSOPHICAL MAGAZINE, vol.94, no.18, pp.2072-2099, 2014 (SCI-Expanded)
- IX. **Thermoelectric properties of p-type (Bi₂Te₃)_x(Sb₂Te₃)_(1-x) single crystals doped with 3 wt. % Te**
 Yelgel O. C., Srivastava G. P.
 JOURNAL OF APPLIED PHYSICS, vol.113, no.7, 2013 (SCI-Expanded)
- X. **Thermoelectric properties of n-type Bi-2(Te_{0.85}Se_{0.15})₃ single crystals doped with CuBr and SbI₃**
 Yelgel O. C., Srivastava G. P.
 PHYSICAL REVIEW B, vol.85, no.12, 2012 (SCI-Expanded)

Articles Published in Other Journals

- I. **Investigation of Photocatalytic Performance of GaN-WSSe Under Vertical Strain**
 Yelgel Ö. C.
 Recep Tayyip Erdoğan University Journal of Science and Engineering, vol.4, no.1, pp.30-38, 2023 (Peer-Reviewed Journal)
- II. **Forecasting Wind Power Generation Using Artificial Neural Network**
 Tokmak A., Atalay I., Yelgel Ö. C.
 International Journal of Pure and Applied Sciences, vol.9, no.1, pp.7-19, 2023 (Peer-Reviewed Journal)
- III. **Theoretical Study of Thermal Conductivities of n- and p-type Doped Mg₂Si_{1-x}Sn_x Thermoelectric Solid Solutions**
 Yelgel Ö. C.
 SAKARYA UNIVERSITY JOURNAL OF SCIENCE, vol.21, no.6, pp.1-10, 2017 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Effects of Dimensionality Reduction for High-Efficiency Mg-based Thermoelectrics**
 Yelgel Ö. C.
 in: Magnesium Alloys - Processing, Potential, Applications, Prof. Tomasz Arkadiusz Tański, Editor, IntechOpen, Townsville, pp.1-24, 2023
- II. **Recent Advances on Mg₂XIV Based Thermoelectric Materials: A Theoretical Approach**
 YELGEL Ö. C.
 in: Advanced Thermoelectric Materials, Chong Rae Park, Editor, Scrivener Publishing Llc - Wiley-Vch Verlag Weinheim Gmbh, Beverly, pp.229-266, 2019

Refereed Congress / Symposium Publications in Proceedings

- I. **Thermal Conductivities of n- and p-typed Mg₂Si_{1-x}Sn_x Thermoelectric Solid Solution**
 YELGEL Ö. C.
 INTERNATIONAL CONFERENCE ON PROGRESS IN APPLIED SCIENCE 2017 - ICPAS 2017, 4 - 06 January 2017
- II. **Detailed Theoretical Investigation and Comparison of the Thermal Conductivities of n- and p-type Bi₂Te₃ Based Alloys**
 YELGEL Ö. C., Srivastava G. P.
 Mater. Res. Soc. Symp. Proc., San Francisco, United States Of America, 1 - 07 April 2013, no.1543, pp.1-6
- III. **A Detailed Theoretical Study of the Thermal Conductivity of Bi₂(Te_{0.85}Se_{0.15})₃ Single Crystals**

YELGEL Ö. C., Srivastava G. P.

Mater. Res. Soc. Symp. Proc, Boston, United States Of America, 1 - 07 December 2012, no.1404, pp.1-6

Supported Projects

Yelgel Ö. C., TUBITAK Project, Termoelektrik Taşınım Özelliklerinin Nanotel Yapılı Malzemeler İçin İncelenmesi, 2022 - 2022

Tören M., Mollahasanoğlu H., Yelgel Ö. C., TUBITAK Project, Termoelektrik Soğutucuların Yağlı Tip Dağıtım Transformatörlerinin Faydalı Ömürlerine Etkisinin İncelenmesi, 2021 - 2022

YELGEL Ö. C., TUBITAK Project, N- ve P-Tip Katkılı Mg₂X (X=Si, Ge, Sn) Tabanlı Sistemlerin Termoelektrik Özelliklerinin Teorik Olarak İncelenmesi, 2016 - 2017

YELGEL Ö. C., Project Supported by Higher Education Institutions, N- ve P-Tip Katkılı Mg₂X (X=Si, Ge, Sn) Tabanlı Kuantum Kuyu Sistemlerinin Termoelektrik Özelliklerinin Teorik Olarak İncelenmesi, 2016 - 2017

Student Project

Other, Makine Öğrenimi ile Rüzgar Hızı Tahmini: Doğu Karadeniz Vaka Çalışması, Recep Tayyip Erdogan University, Mühendislik Fakültesi, Elektrik ve Elektronik Mühendisliği Bölümü, Turkey, 2023 - 2023

Activities in Scientific Journals

Recep Tayyip Erdoğan Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, Committee Member, 2021 - Continues

Memberships / Tasks in Scientific Organizations

International Scientific Research Congress Science and Engineering, Member of Science Committee, 2021 - Continues, Turkey

International Thermoelectric Society (ITS), Member, 2012 - Continues

Materials Research Society, Member, 2011 - Continues

Scientific Refereeing

MATERIALS SCIENCE & ENGINEERING B: SOLID-STATE MATERIALS FOR ADVANCED TECHNOLOGY, SCI Journal, October 2023

JOURNAL OF APPLIED PHYSICS, SCI Journal, March 2023

INTERNATIONAL JOURNAL OF PURE AND APPLIED SCIENCES, National Scientific Refreed Journal, January 2022

TUBITAK Project, 1002 - Quick Support Program, Recep Tayyip Erdogan University, Turkey, January 2022

TUBITAK Project, 1002 - Quick Support Program, Recep Tayyip Erdogan University, Turkey, October 2021

JOURNAL OF ALLOYS AND COMPOUNDS, SCI Journal, August 2021

JOURNAL OF ALLOYS AND COMPOUNDS, SCI Journal, May 2021

FRONTIERS IN MATERIALS, National Scientific Refreed Journal, January 2021

JOURNAL OF ALLOYS AND COMPOUNDS, SCI Journal, November 2020

JOURNAL OF MATERIALS RESEARCH AND TECHNOLOGY-JMR&T, Journal Indexed in SSCI, October 2020

MATERIALS RESEARCH EXPRESS, SCI Journal, October 2020

Journal of Alloys and Compounds, SCI Journal, August 2019

Journal of Physics and Chemistry of Solids, SCI Journal, February 2019

Intermetallics, SCI Journal, December 2018

Journal of Alloys and Compounds, SCI Journal, July 2018
Scientific Reports, SCI Journal, May 2018
Philosophical Magazine, SCI Journal, March 2018
International Journal of Hydrogen Energy, SCI Journal, July 2017
Journal of Applied Physics, SCI Journal, March 2017
Journal of Alloys and Compounds, SCI Journal, November 2016
International Journal of Applied Mathematics and Theoretical Physics, SCI Journal, March 2015
American Journal of Applied Sciences, SCI Journal, March 2015
Philosophical Magazine, SCI Journal, January 2015
Materials Research Society symposia proceedings, SCI Journal, January 2013

Metrics

Publication: 19
Citation (WoS): 111
Citation (Scopus): 128
H-Index (WoS): 5
H-Index (Scopus): 6

Congress and Symposium Activities

Workshop on Twistronics in 2D Materials from Modelling to Real Systems, Attendee, Manchester, England, 2023
USBILIM 2 nd International Congress on Artificial Intelligence Studies , Attendee, Ankara, Turkey, 2022
Rumeli 1st International Scientific Research Conference on Sustainable Engineering and Technology, Attendee, İstanbul, Turkey, 2022
2nd International Congress of engineering and Natural Sciences, Attendee, Ankara, Turkey, 2022
EuroCC@Türkiye Kuantum Hesaplama ve Teknolojileri Çalıştayı, Attendee, Ankara, Turkey, 2022
12th International Scientific Research Congress Science and Engineering , Session Moderator, Ankara, Turkey, 2021
12th International Scientific Research Congress Science and Engineering , Session Moderator, Ankara, Turkey, 2021
USBILIM 1st International Congress on Artificial Intelligence Studies, Attendee, Ankara, Turkey, 2021
10th International Scientific Research Congress Science and Engineering, Session Moderator, Ankara, Turkey, 2021
7th International Scientific Research Congress Science and Engineering, Attendee, Ankara, Turkey, 2020
ISTANBUL INTERNATIONAL CONFERENCE ON PROGRESS IN APPLIED SCIENCE 2017 - ICPAS 2017, Attendee, İstanbul, Turkey, 2017
Materials Research Society Spring Meeting and Exhibit, Attendee, New York, United States Of America, 2013
Materials Research Society Fall Meeting and Exhibit, Attendee, Massachusetts, United States Of America, 2011
VII International Workshop on Semiconductor Surface Passivation, Attendee, Kraków, Poland, 2011

Scholarships

2008 YLSY Bursu, University, 2008 - 2013

Awards

YELGEL Ö. C., Üniversite Akademik Tesvik Birinciligi, RECEP TAYYIP ERDOGAN UNIVERSITESI GELISTIRME VAKFI, May 2017
YELGEL Ö. C., Outstanding Author (Mükemmel Yazarlık), Journal of Applied Physics, May 2013