

## Assoc. Prof. MEHMET ESEN

### Personal Information

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### International Researcher IDs

ORCID: 0009-0000-2057-4536

Publons / Web Of Science ResearcherID: E-9182-2018

Yoksis Researcher ID: 130990

### Education Information

Doctorate, Cukurova University, Fen Bilimleri Enstitüsü, Turkey 2000 - 2006

Postgraduate, Cukurova University, Fen Bilimleri Enstitüsü, Turkey 1997 - 2000

Undergraduate, Cukurova University, Fizik, Turkey 1992 - 1996

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Atomik basamaklı kristal yüzeylerinin kinetik Monte Carlo yöntemi ile incelenmesi, Cukurova University, Fen Bilimleri Enstitüsü, Fizik, 2006

Postgraduate, Yariletkenlerde elektron tasınımının Monte Carlo yöntemi ile incelenmesi, Cukurova University, Fen Bilimleri Enstitüsü, Fizik, 2000

### Research Areas

Physics, Atomic and Molecular Physics, Atomic and Molecular Interactions, Gases, Plasmas and Electrical Discharges  
Physics, Physics of Plasmas, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Cukurova University, Adana Meslek Yüksek Okulu, Adana Meslek Yüksekokulu, 2019 - Continues

Assistant Professor, Cukurova University, Adana Meslek Yüksek Okulu, Bilgisayar Teknolojileri, 2016 - 2020

Lecturer PhD, Cukurova University, Adana Meslek Yüksek Okulu, Teknik Programlar Bölümü, 2001 - 2016

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

- I. **Crystalline Carbon Deposition on Piston Ring Substrates and Its Effects on Tribological Characteristics, Engine Performance, and Emissions**  
ESEN M., YILMAZ A. C.  
Advanced Engineering Materials, 2024 (SCI-Expanded)
- II. **Investigation of EMI and UV-IR shielding properties of Kevlar and polyester/elastane nanocomposite fabrics coated by ECR and evaporation methods**  
İlhan İ., Esen M., Karaaslan M., Akyürek B. Y., Çelikel Ö.  
JOURNAL OF THE TEXTILE INSTITUTE, vol.1, no.1, pp.1-14, 2023 (SCI-Expanded)
- III. **Investigation of EMI and UV-IR shielding properties of wool and cotton/elastane nanocomposite fabrics**  
İlhan İ., Esen M., Karaaslan M., Yılmaz Akyürek B.  
JOURNAL OF COATINGS TECHNOLOGY AND RESEARCH, no.20, pp.1407-1422, 2023 (SCI-Expanded)
- IV. **Improving Tribological Performance of Piston Ring Steel Substrates by DLC/Nano-crystalline Diamond Coating**  
YILMAZ A. C., ESEN M.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.47, no.12, pp.15441-15453, 2022 (SCI-Expanded)
- V. **Investigation of electromagnetic and ultraviolet properties of nano-metal-coated textile surfaces**  
ESEN M., İlhan İ., KARAASLAN M., ESEN R.  
APPLIED NANOSCIENCE, vol.10, no.2, pp.551-561, 2020 (SCI-Expanded)
- VI. **Formation of carbon nanowalls by pulsed filtered cathodic vacuum arc deposition**  
Tuzemen E. S., Kilic M., Zeyrek B. K., KASAPOĞLU A. E., GÜR E., ALAYDİN B. Ö., ESEN M., ESEN R.  
DIAMOND AND RELATED MATERIALS, vol.93, pp.200-207, 2019 (SCI-Expanded)
- VII. **The investigation of the morphology of a decaying conic mound in the presence of repulsive and attractive step interactions**  
TÜZEMEN A. T., ESEN M., ÖZDEMİR M.  
JOURNAL OF CRYSTAL GROWTH, vol.501, pp.1-6, 2018 (SCI-Expanded)
- VIII. **Scaling properties of equilibrating semiconductor mounds of various initial shapes**  
TÜZEMEN A. T., ESEN M., ÖZDEMİR M.  
JOURNAL OF CRYSTAL GROWTH, vol.470, pp.94-98, 2017 (SCI-Expanded)
- IX. **Mobility of large clusters on a semiconductor surface: Kinetic Monte Carlo simulation results**  
ESEN M., TÜZEMEN A. T., ÖZDEMİR M.  
CHINESE PHYSICS B, vol.25, no.1, 2016 (SCI-Expanded)
- X. **Crystallinity improvement of ZnO nanorods by optimization of low-cost electrodeposition technique**  
Ozdal T., Taktakoglu R., Ozdamar H., ESEN M., TAKCI D. K., KAVAK H.  
THIN SOLID FILMS, vol.592, pp.143-149, 2015 (SCI-Expanded)
- XI. **Electromagnetic absorbance properties of a textile material coated using filtered arc-physical vapor deposition method**  
ESEN M., İLHAN İ., Karaaslan M., Unal E., Dincer F., Sabah C.  
JOURNAL OF INDUSTRIAL TEXTILES, vol.45, no.2, pp.298-309, 2015 (SCI-Expanded)
- XII. **The effect of nitrogen incorporation in DLC films deposited by ECR Microwave Plasma CVD**  
ŞEKER Z., özdamar h., ESEN M., ESEN R., KAVAK H.  
APPLIED SURFACE SCIENCE, vol.314, pp.46-51, 2014 (SCI-Expanded)
- XIII. **KMC simulation of growth and equilibration of V-shaped patterned crystal surface via step motion**  
ESEN M., ÖZDEMİR M.  
JOURNAL OF CRYSTAL GROWTH, vol.386, pp.22-26, 2014 (SCI-Expanded)
- XIV. **Equilibration of a cone: KMC simulation results**  
ESEN M., TÜZEMEN A. T., ÖZDEMİR M.  
EUROPEAN PHYSICAL JOURNAL B, vol.85, no.4, 2012 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Yarıiletken Yüzeylerde Öbek Oluşumu ve İstatistiği**  
ESEN M.  
Cumhuriyet Üniversitesi Fen Fakültesi Fen Bilimleri Dergisi (CFD), vol.2, no.38, pp.234-244, 2017 (Peer-Reviewed Journal)
- II. **Dairesel Yüzeyin Kinetik Monte Carlo Yöntemi Kullanılarak İncelenmesi**  
ESEN M., ÖZDEMİR M.  
çukurova üniversitesi fen ve mühendislik bilimleri dergisi, vol.15, no.1, pp.128-134, 2006 (Non Peer-Reviewed Journal)

## Papers Published in Refereed Scientific Meetings

- I. **The Analysis of Height Change of a Decaying Crystalline Cone**  
ESEN M., ÖZDEMİR M., Tüzemen A. T.  
Turkish physical society 30 TFD, İstanbul, Turkey, pp.273
- II. **PROPERTIES OF AMORPHOUS CARBON FILMS**  
ŞEKER Z., ÖZDAMAR H., ESEN M., SEDEFOĞLU N., KAVAK H., ESEN R.  
Turkish Physical Society 30 th TFD, İstanbul, Turkey, pp.188
- III. **Characterization of DLC Thin Films Deposited on Glass and Si Substrates under The Influence of Electric Field with ECR-MP Method**  
ESEN M., ESEN M.  
TURKISH PHYSICAL SOCIETY 35th INTERNATIONAL PHYSICS CONGRESS (TPS35), Muğla, Turkey, 4 - 08 September 2019, vol.1, pp.298-303
- IV. **ENHANCING TRIBOLOGICAL CHARACTERISTICS OF PISTON RINGS OF INTERNAL COMBUSTION ENGINES USING ECR-CVD COATING METHOD**  
ESEN M., ESEN M., YILMAZ A. C.  
TFD 35. Uluslararası Fizik Kongresi, Muğla, Turkey, 4 - 08 September 2019, pp.40-41
- V. **The Evolution of a Conic Mound According to Repulsive and Attractive Interactions Between Steps**  
TÜZEMEN A. T., ESEN M., ÖZDEMİR M.  
5th International conference on materials science and advanced-nanotechnologies for nextgeneration (MSNG2018), 4 - 06 October 2018, pp.234-237
- VI. **Characterization of Au Nanoparticle Coated with Diamond-Like Carbon Films**  
Baz Z., ESEN M., ARLI E., ESEN R.  
International Conference on Condensed Matter and Materials Science, Adana, Turkey, 11 - 15 October 2017
- VII. **Structure and Properties of Nanoparticle Au/DLC Composite Films Fabricated by MW ECR Plasma Deposition System**  
Baz Z., ESEN M., ARLI E., ESEN R.  
International Conference on Condensed Matter and Materials Science, Adana, Turkey, 11 - 15 October 2017
- VIII. **THE INVESTIGATION OF THE MORPHOLOGY OF A DECAYING MOUND IN THE PRESENCE OF REPULSIVE AND ATTRACTIVE STEP INTERACTIONS**  
TÜZEMEN A. T., ESEN M., ÖZDEMİR M.  
1st International Conference on Materials Science and Nanotechnology For next Generation (MSNG-2017) , Sarajevo, BOSNIA, 28 - 30 June 2017
- IX. **Investigation of Equilibration and Growth of Stepped Surfaces by Kinetic Monte Carlo in one Dimension**  
Turkan A., Esen M., TÜZEMEN A. T., Ozdemir M.  
32nd International Physics Congress of Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 09 September 2016, vol.1815
- X. **SCALING PROPERTIES OF EQUILIBRATING SEMICONDUCTOR SURFACES WITH VARIOUS INITIAL**

## SHAPES

TÜZEMEN A. T., ESEN M., ÖZDEMİR M.

Türk Fizik Derneği 32. Uluslararası Fizik Kongresi, 6 - 09 September 2016

- XI. **MONTE CARLO SIMULATION OF CRYSTAL GROWTH AND EQUILIBRATION IN ONE DIMENSION**  
Türkan A., TÜZEMEN A. T., ESEN M., ÖZDEMİR M.  
Türk Fizik Derneği 32. Uluslararası Fizik Kongresi, 6 - 09 September 2016
- XII. **THE ANALYSIS OF HEIGHT CHANGE OF A DECAYING CRYSTALLINE CONE**  
TÜZEMEN A. T., ESEN M., ÖZDEMİR M.  
9TH INTERNATIONAL PHYSICS CONFERENCE OF THE BALKAN PHYSICAL UNION, İstanbul, Turkey, 24 - 27 August 2015, pp.457
- XIII. **Textile absorber based on cathodic arc decomposition (Katodik-Ark Biriktirme Yöntemi ile Tekstil Metamalzeme Sinyal Emici Tasarımları ve Uygulamaları)**  
Karaaslan M., İLHAN İ., ESEN M., DİNÇER F., SABAH C., AKGÖL O., ALTINTAŞ O.  
UTİB VII.International R&D Brokerage Event, Bursa, Turkey, 27 - 29 May 2015, pp.12
- XIV. **Katodik Ark Biriktirme Yöntemi ile Tekstil Metamalzeme Sinyal Emici Tasarımları ve Uygulamaları**  
**Textile absorber based on cathodic arc decomposition**  
KARAASLAN M., İLHAN İ., ESEN M., DİNÇER F., SABAH C., AKGÖL O., ALTINTAŞ O.  
7. Uluslararası ar-ge proje pazarı, Turkey, 27 - 29 May 2015
- XV. **Growth and Characterization of Electrodeposited ZnO Thin Film**  
KAVAK H., OZDAL t., TAKTAKOĞLU R., ESEN M., ÖZDAMAR H.  
Science & applications of thin films Conference & exhibition SATF2014, 15 - 19 September 2014
- XVI. **STUDY OF CLUSTER MOBILITY ON SEMICONDUCTOR SURFACES BY KMC SIMULATION**  
ESEN M., ÖZDEMİR M.  
EUROPEAN CONFERENCE ON SURFACE SCIENCE (30. ECOSS), Antalya, Turkey, 31 August - 05 September 2014, pp.386
- XVII. **Electromagnetic Shielding and Absorbance Properties of Textiles Coated with Filtered ARC PVD Method**  
ESEN M., İLHAN İ., KARAASLAN M., ÖZDAMAR H.  
Türk Fizik Derneği 30. Uluslararası Fizik Kongresi, İstanbul, Turkey, 2 - 05 September 2013
- XVIII. **ZnO İNCE FİLMLEİN OPTİKSEL VE YAPISAL ÖZELLİKLERİ**  
SEDEFOĞLU N., ESEN M., ÖZDAMAR H., ŞEKER(ZAİMOĞLU) Z., KAVAK H., ESEN R.  
Turkish Physical Society 30 th TFD, İstanbul, Turkey, 2 - 05 September 2013, pp.181
- XIX. **ELECTROMAGNETIC SHIELDING AND ABSORBANCE PROPERTIES OF TEXTILES COATED WITH FILTERED ARC-PVD METHOD**  
ESEN M., İLHAN İ., KARASLAN M., ÖZDAMAR H.  
Turkish Physical Society 30 th TFD, İstanbul, Turkey, 2 - 05 September 2013, pp.153
- XX. **PRODUCTION OF CARBON NITRIDE THIN FILMS BY MW-ECR DEPOSITING SYSTEMS**  
ESEN M., SEDEFOĞLU N., ÖZDAMAR H., ŞEKER Z., KAVAK H., ESEN R.  
Turkish Physical Society 30 th TFD, İstanbul, Turkey, 2 - 05 September 2013, pp.152
- XXI. **DÜZLEMSEL OLMAYAN YÜZEYLERİN MONTE CARLO YÖNTEMİ İLE BÜYÜTÜLMESİ VE DENGEYE ULAŞMASI**  
ESEN M., TÜZEMEN A. T., ÖZDEMİR M.  
TÜRK FİZİK DERNEĞİ 29. ULUSLARARASI FİZİK KONGRESİ, 5 - 08 September 2012
- XXII. **KMC SIMULATION OF EQUILIBRATION OF A CONE**  
ESEN M., TÜZEMEN A. T., ÖZDEMİR M.  
TURKISH PHYSICAL SOCIETY 29 TH INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 5 - 08 September 2012, pp.183
- XXIII. **DÜZLEMSEL OLMAYAN YARIİLETKEN YÜZEYLERİN EVRİMİNİN KİNETİK MONTE CARLO SİMULASYON YÖNTEMİ KULLANILARAK İNCELENMESİ**  
ESEN M., ÖZDEMİR M.  
23. TÜRK FİZİK DERNEĞİ KONGRESİ, Muğla, Turkey, 13 - 16 September 2005, pp.221

- XXIV. **KMC SIMULATION OF SURFACE GROWTH OF SEMİCONDUCTORS**  
ESEN M., ÖZDEMİR M.  
TÜRK FİZİK DERNEĞİ 22. ULUSLARARASI KONGRESİ, 14 - 17 September 2004
- XXV. **KMC SIMULATION OF SURFACE GROWTH OF SEMİCONDUCTORS**  
ESEN M., ÖZDEMİR M.  
22. TÜRK FİZİK DERNEĞİ KONGRESİ, Muğla, Turkey, 14 - 17 September 2004, pp.192
- XXVI. **Statistical Mechanics of a Step Edge**  
ESEN M., ÖZDEMİR M.  
İstatistik Fizik Günleri, Turkey, 24 June 2004

## Other Publications

- I. **Görsel Programlama 2**  
POLAT V., KOÇAK Y., SOLMAZ M. İ., ESEN M., ÖZONUR M.  
Lecture Note, pp.170, 2006
- II. **İnternet Programcılığı 2**  
SOLMAZ M. İ., POLAT V., ÖZONUR M., KOÇAK Y., ESEN M.  
Lecture Note, pp.150, 2006
- III. **İşletim Sistemleri**  
ESEN M., POLAT V., SOLMAZ M. İ., ÖZONUR M., KOÇAK Y.  
Lecture Note, pp.140, 2006
- IV. **C/C++ Programlama 2**  
KOÇAK Y., ÖZONUR M., SOLMAZ M. İ., POLAT V., ESEN M.  
Lecture Note, pp.220, 2006
- V. **Grafik ve Animasyon**  
SOLMAZ M. İ., POLAT V., KOÇAK Y., ÖZONUR M., ESEN M.  
Lecture Note, pp.110, 2005
- VI. **Veri Yapıları ve Programlama**  
POLAT V., KOÇAK Y., ESEN M., SOLMAZ M. İ., ÖZONUR M.  
Lecture Note, pp.120, 2005
- VII. **C/C++ Programlama 1**  
KOÇAK Y., ÖZONUR M., SOLMAZ M. İ., POLAT V., ESEN M.  
Lecture Note, pp.210, 2005
- VIII. **İşletim Sistemleri**  
ESEN M., POLAT V., KOÇAK Y., ÖZONUR M., SOLMAZ M. İ.  
Lecture Note, 2005
- IX. **Görsel Programlama 1**  
POLAT V., KOÇAK Y., SOLMAZ M. İ., ESEN M., ÖZONUR M.  
Lecture Note, pp.150, 2005
- X. **İşletim Sistemleri**  
ESEN M., POLAT V., KOÇAK Y., ÖZONUR M., SOLMAZ M. İ.  
Lecture Note, pp.110, 2005
- XI. **Veri Tabanı Yönetim Sistemleri 2**  
ÖZONUR M., POLAT V., KOÇAK Y., SOLMAZ M. İ., ESEN M.  
Lecture Note, pp.170, 2005
- XII. **İşletim Sistemleri**  
ESEN M., POLAT V., KOÇAK Y., ÖZONUR M., SOLMAZ M. İ.  
Lecture Note, 2005
- XIII. **İnternet Programcılığı 1**  
SOLMAZ M. İ., POLAT V., ÖZONUR M., KOÇAK Y., ESEN M.

- Lecture Note, pp.120, 2005
- XIV. **Bilgisayar Ağları**  
POLAT V., ESEN M., ÖZONUR M., KOÇAK Y., SOLMAZ M. İ.  
Lecture Note, pp.100, 2005
- XV. **Veri Tabanı Yönetim Sistemleri 1**  
ÖZONUR M., KOÇAK Y., SOLMAZ M. İ., POLAT V., ESEN M.  
Lecture Note, pp.130, 2004
- XVI. **Grafik ve Animasyon**  
SOLMAZ M. İ., POLAT V., KOÇAK Y., ÖZONUR M., ESEN M.  
Lecture Note, 2004
- XVII. **Veri Yapıları ve Programlama**  
POLAT V., KOÇAK Y., ESEN M., SOLMAZ M. İ., ÖZONUR M.  
Lecture Note, 2004
- XVIII. **Bilgisayar Donanımı**  
ESEN M., POLAT V., ÖZONUR M., KOÇAK Y., SOLMAZ M. İ.  
Lecture Note, pp.100, 2004
- XIX. **Temel Elektronik**  
KOÇAK Y., ÖZONUR M., SOLMAZ M. İ., POLAT V., ESEN M.  
Lecture Note, pp.200, 2004
- XX. **Algoritma**  
POLAT V., SOLMAZ M. İ., KOÇAK Y., ÖZONUR M., ESEN M.  
Lecture Note, pp.120, 2004

## Supported Projects

- ESEN M., KAVAK H., ESEN m., Project Supported by Higher Education Institutions, ECR (Electron Cyclotron Resonance) yöntemi ile nano yapıların üretimi ve karakterizasyonu, 2018 - 2020
- ESEN M., İLHAN İ., Project Supported by Higher Education Institutions, Electromagnetic absorbance properties of a textile material coated using filtered arcphysical vapor deposition method, 2016 - 2016
- ESEN M., ÖZDEMİR M., Project Supported by Higher Education Institutions, Mobility of large clusters on a semiconductor surface Kinetic Monte Carlo simulation results, 2016 - 2016

## Metrics

- Publication: 64  
Citation (WoS): 70  
Citation (Scopus): 124  
H-Index (WoS): 4  
H-Index (Scopus): 4

## Non Academic Experience

- Business Establishment Private, Koçsistem Bilgi İletişim Teknolojileri A.Ş., Donanım Koç Sistem Bilgi iletişim A.Ş., saha network uzmanı