

## Asst. Prof. KENAN ÖZEL

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Ankara Yildirim Beyazit University, Mühendislik Ve Doğa Bilimleri Fakültesi, Enerji Sistemleri Mühendisliği, Turkey 2018 - 2022

Postgraduate, Ankara University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 2015 - 2017

Undergraduate, Zonguldak Bülent Ecevit University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 2007 - 2012

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Renewable Energy Sources, Fotovoltaik Sistemlerin Teknik Eğitimi, Enerji , 2020

Education Management and Planning, Eğitimcilerin Eğitimi Sertifika Programı, Ankara Üniversitesi, 2019

Technology Management/Management of Technology, Ulusal ve Uluslararası Proje Hazırlama Eğitimi, Ankara Üniversitesi, 2018

### Research Areas

Nanotechnology, Optics and Photonics, Renewable energy, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Ankara University, Gama Meslek Yüksekokulu, Elektrik ve Enerji Bölümü, 2022 - Continues

Lecturer PhD, Ankara University, Gama Meslek Yüksekokulu, Elektrik ve Enerji Bölümü, 2015 - 2022

Lecturer, Tokat Gaziosmanpaşa University, 2014 - 2015

Research Assistant, Zonguldak Bülent Ecevit University, Faculty Of Engineering, 2012 - 2014

### Academic and Administrative Experience

Director of Vocational School, Ankara University, Gama Meslek Yüksekokulu, Elektrik ve Enerji Bölümü, 2023 - Continues  
Head of Department, Ankara University, Gama Meslek Yüksekokulu, Elektrik ve Enerji Bölümü, 2022 - Continues  
Assistant Director of Vocational School, Ankara University, Gama Meslek Yüksekokulu, 2021 - 2023

## Courses

Technology Applications in Healthcare, Undergraduate, 2024 - 2025  
Electricity Generation with Solar Energy, Associate Degree, 2024 - 2025  
Electric Power Plants, Associate Degree, 2024 - 2025  
Electrical Machines, Associate Degree, 2022 - 2023  
Yüksek Gerilim Tekniği, Associate Degree, 2023 - 2024  
Sensors and Actuators, Associate Degree, 2023 - 2024  
Circuit Analysis, Associate Degree, 2022 - 2023  
Alternative Energy Technologies, Associate Degree, 2022 - 2023  
Enerji Kaynakları ve Dönüştürme Sistemleri, Associate Degree, 2016 - 2017  
Sistem Analizi ve Tasarımı, Associate Degree, 2016 - 2017  
Kontrol Sistemleri, Associate Degree, 2016 - 2017  
Güç Dönüşümünün Temelleri, Associate Degree, 2016 - 2017  
Elektrik Güç İletim ve Dağıtımı, Associate Degree, 2016 - 2017  
Temel Elektronik, Associate Degree, 2016 - 2017

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

- I. **Fabrication of ZnO/polyimide based flexible UV photodetectors: Effect of film thickness on the detection performance**  
ÖZEL K., Faheem M. B., YILDIZ A.  
Sensors and Actuators A: Physical, vol.379, 2024 (SCI-Expanded)
- II. **Tailored key parameters of CuO thin films for emerging solar cells**  
Ot H., ÖZEL K., Kutlu-Narin E., Serin T., YILDIZ A.  
Journal of Materials Science: Materials in Electronics, vol.35, no.30, 2024 (SCI-Expanded)
- III. **Ag nanoparticles decorated AZO/p-Si heterojunction UV photodetector**  
ÖZEL K.  
Optics and Laser Technology, vol.174, 2024 (SCI-Expanded)
- IV. **High-performance transparent AZO UV photodetectors**  
Ozel K., Yildiz A.  
OPTICAL AND QUANTUM ELECTRONICS, vol.56, no.7, 2024 (SCI-Expanded)
- V. **UV photodetectors based on W-doped ZnO thin films**  
Jalal R., Ozel K., ATILGAN A., Yildiz A.  
NANOTECHNOLOGY, vol.35, no.26, 2024 (SCI-Expanded)
- VI. **Multi-layered blocking layers for dye sensitized solar cells**  
ÖZEL K., ATILGAN A., YILDIZ A.  
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY, vol.448, 2024 (SCI-Expanded)
- VII. **Strain-induced photoresponsivity in gallium-doped ZnO thin film based UV photodetectors**  
ÖZEL K.  
Sensors and Actuators A: Physical, vol.366, 2024 (SCI-Expanded)
- VIII. **Engineering the visible light absorption of one-dimensional photonic crystals based on multilayers of Al-doped ZnO (AZO) thin films**  
ATILGAN A., ÖZEL K., Sbeta M., YILDIZ A.  
Materials Science in Semiconductor Processing, vol.166, 2023 (SCI-Expanded)

- IX. **Bio-inspired diodes made of chitosan/p-Si sandwich structure**  
 ÖZEL K., Kocak Y.  
 Sensors and Actuators A: Physical, vol.360, 2023 (SCI-Expanded)
- X. **Thin film luminescent solar concentrators fabricated for indoor applications**  
 Arslan A., ÖZEL K., ATILGAN A., YILDIZ A.  
 Physica B: Condensed Matter, vol.661, 2023 (SCI-Expanded)
- XI. **Ultraviolet photodiode fabricated from TiO<sub>2</sub> nanorods/p-silicon heterojunction**  
 Sekertekin B., ÖZEL K., ATILGAN A., YILDIZ A.  
 MATERIALS LETTERS, vol.323, 2022 (SCI-Expanded)
- XII. **Estimation of Maximum Photoresponsivity of n-SnO<sub>2</sub>/p-Si Heterojunction-Based UV Photodetectors**  
 ÖZEL K., YILDIZ A.  
 PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS, vol.16, no.2, 2022 (SCI-Expanded)
- XIII. **Comprehensive Understanding of the Role of Emitter Layer Thickness for Metal Oxide Semiconductors Based Solar Cells**  
 ÖZEL K., YILDIZ A.  
 IEEE Journal of Photovoltaics, vol.12, pp.251-258, 2022 (SCI-Expanded)
- XIV. **The potential barrier-dependent carrier transport mechanism in n-SnO<sub>2</sub>/p-Si heterojunctions**  
 ÖZEL K., YILDIZ A.  
 Sensors and Actuators A: Physical, vol.332, 2021 (SCI-Expanded)
- XV. **High-detectivity ultraviolet-B photodetector based on SnO<sub>2</sub> thin film/Si heterojunction**  
 ÖZEL K., YILDIZ A.  
 SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.36, no.9, 2021 (SCI-Expanded)
- XVI. **A Self-Powered Ultraviolet Photodetector with Ultrahigh Photoresponsivity (208 mA W<sup>-1</sup>) based on SnO<sub>2</sub> Nanostructures/Si Heterojunctions**  
 ÖZEL K., YILDIZ A.  
 PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS, vol.15, no.6, 2021 (SCI-Expanded)
- XVII. **A route towards enhanced UV photo-response characteristics of SnO<sub>2</sub>/p-Si based heterostructures by hydrothermally grown nanorods**  
 ÖZEL K., ATILGAN A., KÖKSAL N. E., YILDIZ A.  
 JOURNAL OF ALLOYS AND COMPOUNDS, vol.849, 2020 (SCI-Expanded)
- XVIII. **SnO<sub>2</sub>/ZnO/p-Si and SnO<sub>2</sub>/TiO<sub>2</sub>/p-Si heterojunction UV photodiodes prepared using a hydrothermal method**  
 Ozel K., Yildiz A.  
 SENSORS AND ACTUATORS A-PHYSICAL, vol.315, 2020 (SCI-Expanded)
- XIX. **St. Lucie cherry, yellow jasmine, and madder berries as novel natural sensitizers for dye-sensitized solar cells**  
 ATLI A., ATILGAN A., Altinkaya C., Ozel K., YILDIZ A.  
 INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.43, no.8, pp.3914-3922, 2019 (SCI-Expanded)
- XX. **Enhancement of efficiency of natural and organic dye sensitized solar cells using thin film TiO<sub>2</sub> photoanodes fabricated by spin-coating**  
 Yildiz Z. K., ATILGAN A., Atli A., Ozel K., Altinkaya C., Yildiz A.  
 JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY, vol.368, pp.23-29, 2019 (SCI-Expanded)
- XXI. **Performance Improvement of Dye-Sensitized Solar Cells with AZO and BZO Blocking Layers**  
 ÖZEL K., KOŞALAY İ., ATILGAN A., ATLI A., Yildiz Z. K., YILDIZ A.  
 JOURNAL OF NEW MATERIALS FOR ELECTROCHEMICAL SYSTEMS, vol.21, no.4, pp.227-231, 2018 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Boron-Doped Thin Films Fabricated by the Spin Coating Method: The Effect of Doping Concentrations**

Atılgan A., ÖZEL K.

Gazi University Journal of Science Part A: Engineering and Innovation, vol.11, no.1, pp.57-67, 2024 (Peer-Reviewed Journal)

**II. Systematic Investigation on the Synergistic Impact of Gallium (Ga)-Boron (B) Co-Doping on the Features of ZnO Films**

ÖZEL K., ATILGAN A.

Gazi University Journal of Science Part A: Engineering and Innovation, vol.10, no.4, pp.442-451, 2023 (Peer-Reviewed Journal)

**III. The Design of Standalone PV System Using PO Algorithm for Maximum Power Point Tracking**

ÖZEL K., KARAARSLAN A.

Communications Faculty of Sciences University of Ankara Series A2-A3: Physical Sciences and Engineering, 2020 (Peer-Reviewed Journal)

## **Refereed Congress / Symposium Publications in Proceedings**

**I. Manufacturing And Performance Analysis Of Painted Glass Based Luminescent Solar Concentrators With Series Or Parallel Connected Silicon Solar Cells.**

Özel K., Yıldız A.

1. International BlackSea Scientific Research and Innovation Congress, Trabzon, Turkey, 23 - 24 December 2023, pp.107-114

**II. Evaluation Of Photovoltaic Performance Of Luminescent**

Özel K., Yıldız A.

1. International BlackSea Scientific Research and Innovation Congress, Trabzon, Turkey, 23 - 24 December 2023, pp.115-121

**III. Tilt Angle-Dependent Performance Analysis of Dye-Sensitized Solar Cells**

ÖZEL K., YILDIZ A.

V. Başkent International Conference on Multidisciplinary Studies, Ankara, Turkey, 21 - 22 December 2023

**IV. Investigation of Stable Operating States and Performance of Luminescent Solar Concentrators Under Various Light Sources**

ÖZEL K., YILDIZ A.

V. Başkent International Conference on Multidisciplinary Studies, Ankara, Turkey, 21 - 22 December 2023

**V. Investigation of Illumination Intensity-Dependent Performance of Dye-Sensitized Solar Cells**

ATILGAN A., ÖZEL K., YILDIZ A.

5. Uluslararası Harran Bilimsel Araştırmalarda Yenilikçi Yaklaşımlar Kongresi, 8 - 10 December 2023

**VI. The Impact of Lightguide Material Thickness on the Performance of Luminescent Solar Concentrators**

ÖZEL K., ATILGAN A., YILDIZ A.

5. Uluslararası Harran Bilimsel Araştırmalarda Yenilikçi Yaklaşımlar Kongresi, 8 - 10 December 2023

**VII. Evaluation of the Performance of Dye-sensitized Solar Cells Under Indoor Illumination Conditions**

ATILGAN A., ÖZEL K., YILDIZ A.

Euroasia Congress on Scientific Researches and Recent Trends-XII, Ankara, Turkey, 29 - 30 November 2023

**VIII. Performance Comparison of Luminescent Solar Concentrators Designed with Polycrystalline and Monocrystalline Silicon Solar Cells**

ÖZEL K., ATILGAN A., YILDIZ A.

Euroasia Congress on Scientific Researches and Recent Trends-XII, Turkey, 29 - 30 November 2023

**IX. Performance Analysis of Bifacial Dye-Sensitized Solar Cells**

ATILGAN A., ÖZEL K., YILDIZ A.

7. International Göbeklitepe Scientific Studies Congress, Şanlıurfa, Turkey, 11 - 12 November 2023

**X. Production and Characterization of Bulk Acrylic Based Luminescent Solar Concentrators**

ÖZEL K., ATILGAN A., YILDIZ A.

7. International Göbeklitepe Scientific Studies Congress, Şanlıurfa, Turkey, 11 - 12 November 2023

- XI. **Production of Composite Suspension and Tension Insulators Used at High Voltage and Performing Routine Tests**  
ARSLAN A., ÖZEL K., DİNDAR T.  
2. INTERNATIONAL CONGRESS ON CONTEMPORARY SCIENTIFIC RESEARCH, Gaziantep, Turkey, 02 November 2022, pp.88-94
- XII. **A Case Feasibility Study On Piezoelectric Energy Harvesting For Indoor Flooring Applications**  
DİNDAR T., AYDIN H., ÖZEL K.  
5. INTERNATIONAL SCIENCES AND INNOVATION CONGRESS, Ankara, Turkey, 11 November 2022, pp.86-91
- XIII. **An Example Study on Implementation of Roof-Type Photovoltaic System for Ankara Province**  
DİNDAR T., ÖZEL K., ARSLAN A.  
2. INTERNATIONAL CONGRESS ON CONTEMPORARY SCIENTIFIC RESEARCH, Gaziantep, Turkey, 02 November 2022, pp.82-87
- XIV. **Analysis Of Irradiation And Temperature Dependent Electrical Characteristics Of 49.5 KW Photovoltaic (PV) System**  
ÖZEL K., AYDIN H., DİNDAR T.  
5. INTERNATIONAL SCIENCES AND INNOVATION CONGRESS, Ankara, Turkey, 11 November 2022, pp.79-85
- XV. **p-n heterojunction diode based on TiO<sub>2</sub>/p-Si**  
ŞEKERTEKİN B., ÖZEL K., YILDIZ A.  
9th European Conference on Renewable Energy Systems (ECRES 2021), Turkey, 21 April 2021
- XVI. **The Fabrication of n-SnO<sub>2</sub>/p-Si Heterojunction Diode**  
ÖZEL K., YILDIZ A.  
9th European Conference on Renewable Energy Systems (ECRES 2021), Turkey, 21 April 2021
- XVII. **The Investigation of UV detection performance of SnO<sub>2</sub>/p-Si Heterojunction**  
ÖZEL K., YILDIZ A.  
9th European Conference on Renewable Energy Systems (ECRES 2021), Turkey, 21 April 2021

## Metrics

Publication: 41

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