

## **CURRICULUM VITAE AND LIST OF WORKS**

**Name & Surname:** İnal Begüm TURNA DEMİREL

**Academic Title:** Assistant Professor

**Work Address:** Beykoz University, Undergraduate Campus, Kavacık-Beykoz/Istanbul-Türkiye

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### **Education Information**

2016-2022 Istanbul Technical University, Istanbul, Physics Engineering, PhD Program, 4.00/4.00

Thesis: Effects of Solar Radiation and neutron, gamma material interaction effects on the solar cells/modules/panels (2022)

2013-2015 Istanbul Technical University, Istanbul, Physics Engineering, Master of Science, 3.50/4.00

Thesis name: New model and comparative study of correlation factors with monthly average of daily global solar radiation (2015)

2007-2013 Istanbul Technical University, Istanbul, Physics Engineering, Bachelor's Degree 2.75/4.00

Thesis: Organic Light Emitting Diodes (2013)

2003-2006 Erenkoy Girls High School, Istanbul, Science and Math, High-School Degree 5.00/5.00

(Graduate Ranking First in School)

### **Working Experiences**

2022-Present Beykoz University, Faculty of Engineering and Architecture, Software Engineering, Assistant Professor

2019-2022 Beykoz University, Audiometry (Academic assignment to Faculty of Engineering and Architecture, Software Engineering) Lecturer

2019-2022 Istanbul Technical University, Faculty of Science and Literature, Laboratory Scientist

2016-2018 Sim Çelik Industry and Trade Inc., Project Manager

2014-2016 Arçelik, Intellectual Property Department, Project Engineer

2011-2011 TUBITAK UME, Laboratory Assistant (Internship)

2009-2009 Istanbul Technical University, Faculty of Mechanical Engineering, (Internship)

## **Projects**

- Development of a Route Recommendation System Producing Results Based on User Interests and Needs, Project Manager; TEMELCAN ERGENECOŞAR Gizem, Project Scientists;, DEMİREL TURNA İnal Begüm, 07/2024- in progress, Beykoz University Scientific Research Projects Coordination (National Project)
- Empowering the Young for an Economy in Digital Transformation: Gaining Digital Job Skills with a Tool-Based Approach (DIGI-TR), TREESP1.2NEETPRO/P-03/43, January-May 2024, as Academic Lecturer. (EU-Funded Project)
- Machine Learning Based Long-Term Solar Radiation Prediction Using Meteorological Dataset, Project Manager; DEMİREL TURNA İnal Begüm, ERKAN Özlem Feyza, Project Scientists; TEMELCAN Gizem, KULAHCIOGLU Burçin, 06/2022- in progress, Beykoz University Scientific Research Projects Coordination (National Project)
- An Application Study of Solar Radiation Estimation and Decay Modes of PV Panels, Project Manager; ER Zuhul, Project Engineer; TURNA DEMİREL İnal Begüm, 2019-2022, Istanbul Technical University Scientific Research Projects Coordination (National Project)
- Solar simulation and Computing, Project Manager; ER Zuhul, Project Engineer; TURNA İnal Begüm, 20/09/2013 - 15/06/2015, Istanbul Technical University Scientific Research Projects Coordination (National Project)

## **Articles published in international peer-reviewed journals**

- ER Zuhul, TURNA DEMİREL İnal Begüm (2023) Amorphous and monocrystalline PV degradation investigations by the seaward PV200 solar PV tester, Turkish Journal of Electromechanics & Energy, 8(1), pp. 29-36
- TURNA İnal Begüm, ER Zuhul (2022). Performance monitoring of different types of photovoltaic cells. Emerging Materials Research, 11, Doi: 10.1680/jemmr.20.00251
- ER Zuhul,DERICI Oğuzhan,TURNA İnal Begüm,KARATAŞ Berfin,EROĞLU M,ALYANAK Ecesu (2018). The Cloudless Effect Evaluation for Hourly Irradiance in Turkey. Acta Physica Polonica A, 134, Doi: 10.12693/APhysPolA.134.391
- ER Zuhul,TURNA İnal Begüm (2018). Solar Radiation Evaluation by t-Statistical Analysis Method for South and North Region of Turkey. Arabian Journal of Geosciences, 11(11):249, DOI:10.1007/s12517-018-3603-6
- ER Zuhul,ROUABAH Zahir,TURNA İnal Begüm (2017). A Modal Study on the Estimation of Daily Global Solar Radiation from Sunshine Duration. Acta Physica Polonica A, 132, Doi: 10.12693/APhysPolA.132.1070
- ER Zuhul,TURNA İnal Begüm (2016). Future Expectation of the Photovoltaics Role in Compensating Energy Demand. ACTA PHYSICA POLONICA A, Vol.129,(4), doi:10.12693/APhysPolA.129.865

### **Papers presented at international scientific meetings and published in proceedings**

- TURNA İnal Begüm,ER Zuhul (2017). RMS and MB Error Methods for Solar Radiation Analysis South Region of Turkey. International Conference on Computational and Experimental Science and Engineering (Oral Presentation)
- ER Zuhul,TURNA İnal Begüm (2017). Solar Radiation Evaluation by t-Statistical Analysis Method for South and North Region of Turkey. International Conference on Computational and Experimental Science and Engineering (Oral Presentation)
- ER Zuhul,DERICI Oğuzhan,TURNA İnal Begüm,KARATAŞ Berfin,EROĞLU M,ALYANAK Ecesu (2017). The Cloudless Effect Evaluation for Hourly Irradiance in Turkey. 7th International Advances in Applied Physics and Materials Science (Oral Presentation)
- ER Zuhul,ROUABAH Zahir,TURNA İnal Begüm (2016). A Modal Study on The Estimation of Daily Global Solar Radiation from Sunshine Duration. International Conference on Computational and Experimental Science and Engineering (Oral Presentation)
- ER Zuhul,TURNA İnal Begüm (2015). Future Expectation of PVs Role in Compensating Energy Demand. International Advances in Applied Physics and Material Science Congress Exhibition. International Advances in Applied Physics and Material Science Congress Exhibition (Oral Presentation)

### **Papers presented at national scientific meetings and published in proceedings**

- TURNA DEMİREL İnal Begüm, TEMELCAN ERGENECOŞAR Gizem (2023). Enhancing Sustainability Through Machine Learning-Based Temperature Estimation: A Comparative Study Of Atmospheric Data And Satellite Observations. (Oral Presentation)
- TURNA İnal Begüm (2017). Theoretical Investigation of Organic Light Emitting Diodes. 11.National Lighting Congress (Abstract Paper/ Poster)

### **Undergraduate and graduate level courses taught**

- 2019-2024 - Fall Semesters - Physics I: Classical Mechanics
- 2019-2022 - Fall Semesters - Physics Laboratory I
- 2019-2024 - Spring Semesters - Physics II: Electricity and Magnetism
- 2019-2022 - Spring Semesters - Physics Laboratory II
- 2021-2024 - Spring Semesters -Engineering Project I
- 2022-2024 - Spring Semesters - Information and Communication Technologies

### **Languages (Exam, Score and Year)**

- English (YÖKDİL Exam, Grade: 90 over 100 and Year: 2022)

### **Courses and Certifications**

2018 Solar Energy: Photovoltaic Energy Conversion, Delft University of Technology, edX  
2017 Tekla Structures-XSTEEL, MIMTEK  
2013 Microsoft Certified Solutions Developer (MCSD), BILGE ADAM  
2010 AutoCAD, MIMTEK