

## **Asst. Prof. SEZEN BAL**

### **Personal Information**

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### **International Researcher IDs**

ScholarID: K1o4d0UAAAAJ

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Publons / Web Of Science ResearcherID: LTY-7521-2024

ScopusID: 58996439500

Yoksis Researcher ID: 381563

### **Education Information**

Undergraduate, Kocaeli University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, Turkey 2019 - 2020

Doctorate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Electronics-Computer Education, Turkey 2007 - 2014

Postgraduate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Electronics-Computer Education, Turkey 2005 - 2007

Undergraduate, Marmara University, Faculty of Technical Education, Electronic and Computer Education, Turkey 2000 - 2004

### **Foreign Languages**

English, B2 Upper Intermediate

### **Dissertations**

Doctorate, A special purpose input/output card emulator by using FPGA, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Electronics-Computer Education, 2014

Postgraduate, Design of a remote access electronics laboratory, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Department of Electronics-Computer Education, 2007

### **Research Areas**

Processor Architectures, Logic Design, Integrated Circuits, Engineering and Technology

### **Academic Titles / Tasks**

Assistant Professor, Marmara University, Vocational School of Technical Sciences, Computer Technologies, 2025 - Continues

Lecturer PhD, Marmara University, Vocational School of Technical Sciences, Computer Technologies, 2022 - Continues

Lecturer PhD, Marmara University, 2018 - 2022

## Courses

### Postgraduate

EMBEDDED SYSTEM PROGRAMMING, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

### Undergraduate

ADVANCED DIJITAL DESIGN, Undergraduate, 2023 - 2024, 2021 - 2022, 2020 - 2021

### Associate Degree

OBJECT ORIENTED PROGRAMMING, Associate Degree, 2023 - 2024, 2022 - 2023

DATABASE MANAGEMENT SYSTEMS I, Associate Degree, 2023 - 2024, 2022 - 2023

BİTİRME PROJESİ, Associate Degree, 2023 - 2024, 2022 - 2023

ADVANCED MICROCONTROLLERS, Associate Degree, 2023 - 2024, 2022 - 2023

PROJECT MANAGEMENT, Associate Degree, 2022 - 2023

OBJECT ORIENTED PROGRAMMING I, Associate Degree, 2023 - 2024, 2022 - 2023

EMBEDDED SYSTEMS, Associate Degree, 2023 - 2024

SOFTWARE DEVELOPMENT, Associate Degree, 2023 - 2024

VOCATIONAL ENGLISH, Associate Degree, 2021 - 2022

PROGRAMMING LANGUAGE, Associate Degree, 2021 - 2022

ALGORITHMS AND PROGRAMMING, Associate Degree, 2020 - 2021

COMPUTERISED DATA ACQUISITION AND CONTROL, Associate Degree, 2018 - 2019

MICROCONTROLLERS, Associate Degree, 2019 - 2020, 2018 - 2019

GRADUATION PROJECT, Associate Degree, 2018 - 2019

MICROPROCESSORS / MICROCONTROLLERS Uygulamak için tıkla, Associate Degree, 2018 - 2019

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

- I. **Technical teacher training program for engineering integration in K-12 education**  
Bal S., Sarıkaş A., Yayla A., Başpınar U., Altınay S., Baba A. F., Erdal H., Korkmaz H.  
COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, vol.32, no.4, pp.1-16, 2024 (SCI-Expanded)
- II. **A Remotely Accessible and Configurable Electronics Laboratory Implementation by Using LabVIEW**  
Azaklar S., KORKMAZ H.  
COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, vol.18, no.4, pp.709-720, 2010 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Design and Testing of a Wireless Communication Enabled FPGA Development Board: A Comprehensive Education and Application Platform from IoT to Circuit Design**  
KARAGEDİK N., BAL S., YAYLA A.  
European Journal of Technique, vol.13, no.2, pp.123-129, 2023 (Peer-Reviewed Journal)

## Papers Published in Refereed Scientific Meetings

- I. **THERMAL IMAGING WITH FPGA-BASED ACCELERATION IN SEARCH AND RESCUE OPERATIONS**  
Bal S., Bahçeci H.  
3. BİLSEL INTERNATIONAL ÇATALHÖYÜK SCIENTIFIC RESEARCHES CONGRESS, Konya, Turkey, 24 - 25 August 2024, pp.72-79
- II. **Performance Evaluation of Artificial Neural Network Maximum Power Point Tracking Algorithm for Photovoltaic Panel with Single Ended Primary Inductor Converter**  
BAL S., YAYLA A., AKPINAR K. N.

2nd International Engineering Conference on Electrical, Energy, and Artificial Intelligence, EICEEAI 2023, Zarqa, Jordan, 27 - 28 December 2023

**III. Developing a graduate level embedded system programming course content by using blended programming methodologies Text based and graphical**

ercan C., KORKMAZ H., TOKER K.

2014 IEEE Global Engineering Education Conference (EDUCON), İstanbul, Turkey, 3 - 05 April 2014, pp.1010-1015

**IV. Real-Time Instrument Control Via Internet By Using LabVIEW Graphical Development Platform**

Bal S., Korkmaz H.

International Educational Technology Conference, Eskişehir, Turkey, 6 - 08 May 2008, pp.1020-1025

## **Supported Projects**

Bal S., Korkmaz H., Erdal H., Baba A. F., Sarıkaş A., Yayla A., Başpınar U., Altınay S., TUBITAK Project, INNOVATIVE METHODS FOR COMPUTER SCIENCES AND DIGITAL SYSTEMS EDUCATION, 2021 - 2022