

# SELMA DİLEK

## RES. ASST. PHD

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International Researcher IDs

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Publons / Web Of Science ResearcherID: ABA-8946-2020

ScopusID: 55568950800

Yoksis Researcher ID: 249692



### Learning Knowledge

Doctorate 2017 - 2022	Hacettepe University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği A.B.D, Turkey
Postgraduate 2012 - 2017	Gazi University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, Turkey
Undergraduate 2004 - 2008	University of Buckingham, Applied Computing, Computer Science, United Kingdom
Undergraduate 2004 - 2008	University Sarajevo School of Science and Technology, Computer Science, Computer Science / Electrical And Electronics Engineering , Bosnia And Herzegovina

### Foreign Languages

English, C2 Mastery

Arabic, B1 Intermediate

Turkish, C2 Mastery

Swedish, B2 Upper Intermediate

German, B2 Upper Intermediate

Croatian, C2 Mastery

Bosnian, C2 Mastery

Korean, A1 Beginner

Serbian, C2 Mastery

### Dissertations

Doctorate, Optimization Methods in High-Level Synthesis, Hacettepe University, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği A.B.D, 2022

Postgraduate, Internet of Things Based Remote Healthcare Monitoring Application, Gazi University, Graduate School Of Natural And Applied Sciences, Computer Engineering, 2017

## Academic Titles / Tasks

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Research Assistant

2016 - Continues

Hacettepe University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü

## Supported Projects

1. Dilek S., Baydere Ş., Güzel M., TÜBİTAK International Bilateral Joint Cooperation Program Project, Q-Iot: Design and Development of IoT System Architecture with Quality of Service Support, 2020 - 2023
2. TOSUN S., DİLEK S., TUBITAK Project, Uygulamaya Yönelik Entegre Devreler İçin Güvenilirlik Odaklı Tasarım Yöntemleri, 2017 - 2019
3. ÖZSOY A., ZORLU O., DİLEK S., Project Supported by Higher Education Institutions, ICPADS 2017 Konferans Katilimi, 2017 - 2018

## Scholarships

1001 – BİLİMSEL VE TEKNOLOJİK ARAŞTIRMA PROJELERİNİ DESTEKLEME PROGRAMI, TUBITAK, 2020 - 2022

1001 – BİLİMSEL VE TEKNOLOJİK ARAŞTIRMA PROJELERİNİ DESTEKLEME PROGRAMI, TUBITAK, 2017 - 2019

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

1. **Neuron Grouping and Mapping Methods for 2D-Mesh NoC-based DNN Accelerators**  
Nacar F., Cakin A., Dilek S., Tosun S., Chakrabarty K.  
JOURNAL OF PARALLEL AND DISTRIBUTED COMPUTING, vol.104949, pp.1-42, 2024 (SCI-Expanded)
2. **Energy-aware application mapping methods for mesh-based hybrid wireless network-on-chips**  
ÇAKIN A., DİLEK S., TOSUN S.  
Journal of Supercomputing, 2024 (SCI-Expanded)
3. **Simulated annealing-based high-level synthesis methodology for reliable and energy-aware application specific integrated circuit designs with multiple supply voltages**  
Dilek S., Tosun S., Çakin A.  
INTERNATIONAL JOURNAL OF CIRCUIT THEORY AND APPLICATIONS, pp.1-42, 2023 (SCI-Expanded)
4. **Integer linear programming-based optimization methodology for reliability and energy-aware high-level synthesis**  
DİLEK S., TOSUN S.  
Microelectronics Reliability, vol.139, 2022 (SCI-Expanded)
5. **QoS-aware IoT networks and protocols: A comprehensive survey**  
DİLEK S., Irgan K., GÜZEL M., ÖZDEMİR S., BAYDERE Ş., Charnsripinyo C.  
INTERNATIONAL JOURNAL OF COMMUNICATION SYSTEMS, vol.35, 2022 (SCI-Expanded)
6. **A survey on computation offloading and service placement in fog computing-based IoT**  
Gasmi K., DİLEK S., TOSUN S., Ozdemir S.  
JOURNAL OF SUPERCOMPUTING, vol.78, no.2, pp.1983-2014, 2022 (SCI-Expanded)
7. **A High-Level Synthesis Methodology for Energy and Reliability-Oriented Designs**  
Dilek S., Smri R., Tosun S., Dal D.  
IEEE Transactions On Computers, vol.71, no.1, pp.161-174, 2022 (SCI-Expanded)

## Articles Published in Other Journals

1. **Applications of Artificial Intelligence Techniques to Combating Cyber Crimes: A Review**  
DİLEK S., ÇAKIR H., Aydın M.  
International Journal of Artificial Intelligence Applications (IJAA), vol.6, no.1, pp.21-39, 2015 (Peer-Reviewed Journal)
2. **Sağlık Hizmetleri Sektöründe Kablosuz Algılayıcı Ağlar**  
DİLEK S., ÖZDEMİR S.  
International Journal of Informatics Technologies, vol.7, no.2, pp.7-19, 2014 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

1. **A Secure Cloud-Based Infrastructure for Virtual Sensors in IoT Environments**  
Makda T. J., Barros A. L., Dilek S.  
2023 Sixth International Conference of Women in Data Science at Prince Sultan University (WiDS PSU), Ar Riyad, Saudi Arabia, 14 - 15 March 2023, pp.156-161
2. **IoT-Based Remote COVID-19 Patient Monitoring for Better Care and Alleviation of Hospital Overcrowding**  
Dilek S., Bölükbaş Koçak Ş. N., Çağıl K., Koçak M. E., Özdemir S.  
8th International Conference on COVID-19 Studies, Adana, Turkey, 1 - 02 March 2023, pp.245-258
3. **Towards QoS-Aware Resource Allocation in Fog Computing: A Theoretical Model**  
DİLEK S., Oracevic A., TOSUN S., ÖZDEMİR S.  
2022 International Symposium on Networks, Computers and Communications, ISNCC 2022, Shenzhen, China, 19 - 21 July 2022
4. **GPU-Based Parallel Genetic Algorithm for Increasing the Coverage of WSNs**  
zorlu o., DİLEK S., ÖZSOY A.  
ICPADS - The International Conference on Parallel and Distributed Systems, 15 - 17 December 2017
5. **Security in Internet of Things: A Survey**  
Oracevic A., DİLEK S., ÖZDEMİR S.  
International Symposium on Networks, Computers and Communications (ISNCC), Marrakech, Morocco, 16 - 18 May 2017
6. **Ontology creation for an educational center**  
DİLEK S., KARACAN H., Jahangiri N., Afzali S.  
6th International Conference on Application of Information and Communication Technologies (AICT), Tbilisi, Georgia, 17 - 19 October 2012

## Courses

Introduction to Programming, Undergraduate, 2022 - 2023

## Memberships / Tasks in Scientific Organizations

The Institute of Electrical and Electronics Engineers (IEEE), Member, 2011 - Continues, United States Of America  
The Association for Computing Machinery (ACM), Member, 2019 - 2019, United States Of America

## Scientific Refereeing

JOURNAL OF SUPERCOMPUTING, SCI Journal, April 2024

INDONESIAN JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE, Journal Indexed in SCI-E, March 2024  
INDONESIAN JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE, Journal Indexed in SCI-E, March 2023  
JOURNAL OF CIRCUITS, SYSTEMS AND COMPUTERS, Journal Indexed in SCI-E, February 2023  
COMPUTERS, MATERIALS AND CONTINUA, Journal Indexed in SCI-E, February 2023  
CYBERNETICS AND SYSTEMS, Journal Indexed in SCI-E, February 2023  
IEEE Global Conference on Artificial Intelligence & Internet of Things (2022 IEEE GCAIoT), Conference Paper (Full Text),  
December 2022  
IEEE Consumer Communications & Networking Conference (CCNC 2021), Conference Paper (Full Text), September  
2020  
JOURNAL OF CIRCUITS SYSTEMS AND COMPUTERS, Journal Indexed in SCI-E, June 2020  
IEEE International Symposium on Networks, Computers and Communications (ISNCC'20), Conference Paper (Full Text),  
March 2017

## Mobility Activity

Erasmus Programme, Staff Mobility, International University of Sarajevo, Bosnia And Herzegovina, 2022 - 2022

## Metrics

Publication: 15  
Citation (WoS): 53  
Citation (Scopus): 66  
H-Index (WoS): 3  
H-Index (Scopus): 3

## Research Areas

Computer Sciences, algorithms, Simulation and Modelling, Parallel Algorithms, Network Architecture, Processor Architectures, Quantum Calculation, Logic Design, Integrated Circuits, Theoretical Computer Science, Programming Languages, Electronic Circuits, Engineering and Technology