

SELMA DİLEK

ASST. PROF.

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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



Education

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

Assistant Professor
2024 - Continues

Hacettepe University, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü

Research Assistant
2016 - 2024

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., TUBİTAK 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, TUBİTAK, 2020 - 2022
1001 – BİLİMSEL VE TEKNOLOJİK ARAŞTIRMA PROJELERİNİ DESTEKLEME PROGRAMI, TUBİTAK, 2017 - 2019

Published journal articles indexed by SCI, SSCI, and AHCI

1. **A Novel Heuristic Neuron Grouping Algorithm for Deep Neural Network Accelerators**
Cakin A., Dilek S., Tosun S., Nacar F.
JOURNAL OF CIRCUITS, SYSTEMS AND COMPUTERS, vol.0, no.0, pp.1-18, 2024 (SCI-Expanded)
2. **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)
3. **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)
4. **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)
5. **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)
6. **QoS-aware IoT networks and protocols: A comprehensive survey**
DİLEK S., İrgan K., GÜZEL M., ÖZDEMİR S., BAYDERE Ş., Charnsripinyo C.
INTERNATIONAL JOURNAL OF COMMUNICATION SYSTEMS, vol.35, 2022 (SCI-Expanded)
7. **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)

8. **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 (IJAlA), 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, 2023 - 2024
Introduction to Programming, Undergraduate, 2022 - 2023
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

ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING, Journal Indexed in SCI-E, November 2024

DESIGN AUTOMATION FOR EMBEDDED SYSTEMS, Journal Indexed in SCI-E, October 2024

JOURNAL OF SUPERCOMPUTING, Journal Indexed in SCI-E, 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: 16

Citation (WoS): 53

Citation (Scopus): 162

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, Optimization Theory and Methods, Engineering and Technology