

Curriculum Vitae

PERSONAL INFORMATION

Name: Mehdi Kargahi

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CURRENT POSITION AND ROLES

Professor, School of Electrical and Computer Engineering, College of Engineering, University of Tehran

Associate Dean in Graduate Studies, School of Electrical and Computer Engineering, College of Engineering, University of Tehran

Supervisor/Director, Dependable Real-Time Systems Research Lab. (<http://drts.ut.ac.ir>) [Application Focus: Embedded Software in the Automotive Domain]

Supervisor/Director, Cyber-Physical Systems Research Lab. (<http://cps.ut.ac.ir>)

Representative of University of Tehran in a country-wide expert committee in the capacity of Council on the Expansion and Planning of Higher Education

Vice-president, Cyber-Physical Systems Society of Iran (<http://cpssi.ir>)

Coordinator of an Erasmus+ collaboration agreement, between the University of Tehran and MDH (Sweden) on Software Engineering and Embedded System (including MSc double-degree)

RESEARCH INTERESTS

Cyber-Physical Systems; Real-Time and Embedded Systems; Distributed and Resource-aware Machine Learning; Stochastic Systems; Energy-aware and Power-aware Computing; Modeling, Testing, and Evaluation of Embedded Systems

PAST EXPERIENCE

Special Issue Guest Editor, MICPRO (Machine Learning in Resource-Constrained Embedded Systems - 2020); JSA (Testing and Verification of Non-Functional Aspects of CPS - 2020); MICPRO (Design for Resilience in CPS - 2018)

PC Member, ECRTS 2023; RTSS 2021-2022; RTCSA 2020; RTNS 2017-2020; RTEST 2015-2022; CyPhy 2016-2019; CPSWEEK-WMC 2019; CPS&IoT 2020-2022

PI, projects in the areas of Mobile and Embedded Systems Energy Testing; Extending General-purpose Operating Systems for Soft Real-Time Systems; Mixed-Criticality Systems Analysis; Embedded Software Testing

Chair, IEEE Iran Section Conferences Committee – 2019 - 2021

General Co-Chair, International Symposium on Real-Time and Embedded Systems and Technologies (RTEST), Tehran, Iran – 2020

Program Co-Chair, International Symposium on Real-Time and Embedded Systems and Technologies (RTEST), Tehran, Iran – 2015, 2018

Chair, Software Engineering Department, School of Electrical and Computer Engineering, , College of Engineering, University of Tehran, Iran – 2013 - 2017

Program Co-Chair, Verification and Validation of Cyber-Physical Systems (iFM-V2CPS), Reykjavik, Iceland – 2016

Head of Network and Computer Centers, School of Electrical and Computer Engineering, , College of Engineering, University of Tehran, Iran – 2009 - 2013

Full Professor, School of Electrical and Computer Engineering, College of Engineering, University of Tehran, Iran – 2022 - Now

Associate Professor, School of Electrical and Computer Engineering, College of Engineering, University of Tehran, Iran – 2013 - 2022

Assistant Professor, School of Electrical and Computer Engineering, College of Engineering, University of Tehran, Iran – 2007 - 2013

RESEARCH VISITS

Visiting Professor, Embedded Systems, Malardalen University (MDH) – 2019

Visiting Professor, Computer Engineering and Networks Laboratory, Department Information Technology and Electrical Engineering (D-ITET), Swiss Federal Institute of Technology Zurich (ETHZ) – 2018

Visiting Researcher, Department of Electrical and Computer Engineering, University of Victoria, British Columbia, Canada – 2006

EDUCATION

Sharif University of Technology, Tehran, Iran – Computer Engineering, PhD, 2007

Sharif University of Technology, Tehran, Iran – Computer Engineering, MSc, 2001

Amir Kabir University of Technology (Tehran Polytechnic), Tehran, Iran, Computer Engineering, BSc, 1998

COURSES THOUGHT

Undergraduate: Operating Systems; Operating Systems Lab; Real-Time Embedded Systems; Automata Theory; Principles of Compiler Design

Graduate: Cyber-Physical Systems; Stochastic and Distributed Real-Time Systems; Dependable Software Design and Analysis; Power-Aware Computing

SUPERVISED PHD THESIS/RESEARCHES

Post-Doc: Fathieh Faghieh (*current affiliation:* University of Tehran)

PhD: Morteza Mohaqeqi (*current affiliation:* Uppsala University); Mitra Nasri (*current affiliation:* Eindhoven University of Technology); Sedigheh Asyaban (*current affiliation:* University of Science and Technology); Somayyeh Kianpisheh (*current affiliation:* Aalto University); Abdulbaghi Ghaderzadeh (*current affiliation:* University of Science and Technology); Mahmood Hasanloo (*current affiliation:* Zanjan University); Mahmoud Shirazi (*current affiliation:* Zanjan Institute for Advanced Studies in Basic Sciences); Iraj Moghaddasi (*current affiliation:* Iran Telecommunication Research Center); Mehran Alidoost-Nia (*current affiliation:* University of York)

PUBLICATIONS

Please see my [Google Scholar](#) *

PAPER AWARDS

- M. Shekarisaz, L. Thiele, M. Kargahi, “Automatic Energy-Hotspot Detection and Elimination in Real-Time Deeply Embedded Systems”, *The IEEE Real-Time Systems Symposium (RTSS 2021)*, Dortmund, Germany, pp. 97-109, Dec. 2021. (DOI: 10.1109/RTSS52674.2021.00020) (**Best Student Paper Award**)
- A. Yoosefi and M. Kargahi, "Improving Energy-Efficiency of CNNs via Prediction of Reducible Convolutions for Energy-Constrained IoT Devices", *The CSI/CPSSI International Symposium on Real-Time and Embedded Systems and Technologies (RTEST 2020)*, Tehran, Iran, pp. 1-9, June 2020. (DOI: 10.1109/RTEST49666.2020.9140143) (**Best Paper Award**)
- V. Panahi, M. Mohaqeqi, and M. Kargahi, “Preemption-Delay Aware Self-Triggered Controller: A Scheduler-Controller Codesign Approach”, *The 23rd Iranian Conference on Electrical Engineering (ICEE 2015)*, pp. 711-716, IEEE 2015. (DOI: 10.1109/IranianCEE.2015.7146306) (**Best Paper Award**)
- Z. Abbasi, M. Kargahi, M. Mohaqeqi, “Anomaly detection in embedded systems using simultaneous power and temperature monitoring”, *The 11th ISC Conference on Information Security and Cryptography (ISCISC 2014)*, pp. 115-119, IEEE, Sep. 3-4, 2014. (**Best Paper Award**)