

# Curriculum Vitae

## PERSONAL INFORMATION

**Name:** Mehdi Kargahi

**Nationality:** Iranian

**Email:** [kargahi@ut.ac.ir](mailto:kargahi@ut.ac.ir), [mehdi.kargahi@gmail.com](mailto:mehdi.kargahi@gmail.com)

## CURRENT POSITION AND ROLES

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

**Associate Dean of 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>)

**Supervisor/Director**, Cyber-Physical Systems Research Lab. (<http://cps.ut.ac.ir>)  
[Application Focus: Embedded Software in the Automotive Domain]

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

**Researcher**, School of Computer Science, Institute for Research in Fundamental Sciences (IPM) (<http://cs.ipm.ac.ir>)

## 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) - IF: 3.5;

JSA (Testing and Verification of Non-Functional Aspects of CPS - 2020) - IF: 5.8;

MICPRO (Design for Resilience in CPS - 2018) - IF: 3.5

### **PC Member,**

ECRTS 2023-2024; RTSS (**A\***) 2021-2023; RTCSA 2020; RTNS 2017-2020; RTEST 2015-2024; CyPhy 2016-2019; CPSWEEK-WMC 2019; CPS&IoT 2020-2022

**Representative of University of Tehran**, in a country-wide expert committee in the capacity of Council on the Expansion and Planning of Higher Education – 2020-2024

**Coordinator of an Erasmus+ collaboration agreement**, between the University of Tehran and MDH (Sweden) on Software Engineering and Embedded Systems (including an special offer of double-degree to MSc students) – 2016 - 2023

**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

**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

**PhD:** Sharif University of Technology, Tehran, Iran – Computer Engineering-Software, 2007

**MSc:** Sharif University of Technology, Tehran, Iran – Computer Engineering-Software, 2001

**BSc:** Amir Kabir University of Technology (Tehran Polytechnic), Tehran, Iran, Computer Engineering- Hardware, 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);  
Iran Moghaddasi (*current affiliation*: Iran Telecommunication Research Center);  
Mehran Alidoost-Nia (*current affiliation*: Shahid Beheshti University)

## MSc:

Please see [DRTS Alumni](#)

## 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 23<sup>rd</sup> 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 11<sup>th</sup> ISC Conference on Information Security and Cryptography (ISCISC 2014)*, pp. 115-119, IEEE, Sep. 3-4, 2014. **(Best Paper Award)**