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**EDUCATION**

**Ph.D In Software Eng.**Sharif University of Technology 2006-2011  
**M.Sc In Software Eng.**University of Isfahan 2004-2006  
**B.Sc In Software Eng.**University of Tehran 2000-2004

**PUBLICATIONS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **162** | **7** | **16** | **16** | **0** |
| Citations | h-Index | Article | Conference | Book |

***Articles***

**1.** Decentralized runtime verification of message sequences in message-based systems. Samadi Mahboubeh, Ghassemi Esfahani Fatemeh, Khosravi Ramtin (2022)., ACTA INFORMATICA, 60(2), 145-178.  
  
**2.** Specification and Verification of Timing Properties in Interoperable Medical Systems. Zarneshan Mahsa, Ghassemi Esfahani Fatemeh, Khamespanah Ehsan, Sirjani Marjan, Hotcliff John (2022)., Logical Methods in Computer Science, 18(2).  
  
**3.** A Policy-Aware Epistemic Framework for Social Networks. Moezkarimi Zahra, Ghassemi Esfahani Fatemeh, Mousavi Mohammad Reza (2022)., JOURNAL OF LOGIC AND COMPUTATION, 1(1), 1-38.  
  
**4.** An actor-based framework for asynchronous event-based cyber-physical systems. Jahandideh Iman, Ghassemi Esfahani Fatemeh, Sirjani Marjan (2021)., Software and Systems Modeling, 1(1).  
  
**5.** Behavioral model identification and classification of multi-component systems. Sabahi Kaviani Zeynab, Ghassemi Esfahani Fatemeh (2019)., SCIENCE OF COMPUTER PROGRAMMING, 177(1), 41-66.  
  
**6.** RUbIn: A Framework for Reliable and Ubiquitous Inference in WSNs. Shamsaie Abolhassan, Habibi Jafar, Abdi Erfan, Ghassemi Esfahani Fatemeh (2019)., Scientia Iranica, 26-27(1), 1-22.  
  
**7.** Reliable Restricted Process Theory. Ghassemi Esfahani Fatemeh, Wan Fokkink (2019)., FUNDAMENTA INFORMATICAE, 165(1), 1-41.  
  
**8.** Verification of Mobile Ad hoc Network Processes with Data. Ghassemi Esfahani Fatemeh (2018)., The CSI Journal on Computer Science and Engineeringn, 15(2), 44-52.  
  
**9.** Verification of asynchronous systems with an unspecified component. Abbasi Boroujeni Rosa, Ghassemi Esfahani Fatemeh, Khosravi Ramtin (2018)., ACTA INFORMATICA, 56(1), 1-43.  
  
**10.** An adaptive sinkhole aware algorithm in wireless sensor networks. Jahandoust Ghazaleh, Ghassemi Esfahani Fatemeh (2017)., Ad Hoc Networks, 59(1), 24-34.  
  
**11.** Modeling and efficient verification of wireless ad hoc networks. Yousefi Behnaz, Ghassemi Esfahani Fatemeh, Khosravi Ramtin (2017)., FORMAL ASPECTS OF COMPUTING, 30(2), 1-36.  
  
**12.** Model checking mobile ad hoc networks. Ghassemi Esfahani Fatemeh, Wan Fokkink (2016)., FORMAL METHODS IN SYSTEM DESIGN, 48(1-2), 1-31.  
  
**13.** Product Line Process Theory. Ghassemi Esfahani Fatemeh, Mousavi Seyed Mohammad Reza (2015)., Journal of Logical and Algebraic Methods in Programming, 85(1), 200--226.  
  
**14.** Verification of mobile ad hoc networks: An algebraic approach. Ghassemi Esfahani Fatemeh, Fokkink Wan, Movaghar Ali (2011)., Theoretical Computer Science, 412(28), 3262-3282.  
  
**15.** Equational Reasoning on Mobile Ad Hoc Networks. Ghassemi Esfahani Fatemeh, Wan Fokkink, Ali Movaghar (2010)., FUNDAMENTA INFORMATICAE, 105(4), 375-415.  
  
**16.** Formal Modeling Routing Protocols in Mobile Ad-hoc Networks. Ghassemi Esfahani Fatemeh, Ali Movaghar (2008)., The CSI Journal on Computer Science and Engineeringn, 5(24), 46-55.

***Books***

***Conferences***

**1.** Actors Upgraded for Variability, Adaptability, and Determinism. Khosravi Ramtin, Khamespanah Ehsan, Ghassemi Esfahani Fatemeh, Sirjani Marjan (2023)., Fifth International ABS Workshop, 4-6 October, Lyon, France.  
  
**2.** Mobile App Fingerprinting through Automata Learning and Machine Learning. Marzani Fateme, Ghassemi Esfahani Fatemeh, Sabahi Kaviani Zeynab, van Ede Thijs, van Steen Maarten (2023)., 2023 IFIP International Conference on Networking Conference (IFIP Networking), 12-15 June, Barcelona, Spain.  
  
**3.** Transparent Actor Model. Ghassemi Esfahani Fatemeh, Sirjani Marjan, Khamespanah Ehsan, Mirani mahrokh, Hojat Hosein (2023)., 2023 IEEE/ACM 11th International Conference on Formal Methods in Software Engineering (FormaliSE), 14-15 May, Melbourne, Australia.  
  
**4.** Decentralized Runtime Enforcement of Message Sequences in Message-Based Systems. Samadi Mahboubeh, Ghassemi Esfahani Fatemeh, Khosravi Ramtin (2020)., 24th International Conference on Principles of Distributed Systems, 14-16 December, France.  
  
**5.** Combining Machine and Automata Learning for Network Traffic Classification. Sabahi Kaviani Zeynab, Ghassemi Esfahani Fatemeh, Alimadadi Zahra (2020)., The Third IFIP International Conference on Topics in Theoretical Computer Science, 1-2 July, Tehran, IRAN.  
  
**6.** Formal Modeling and Analysis of Medical Systems. Zarneshan Mahsa, Ghassemi Esfahani Fatemeh, Sirjani Marjan (2020)., 22nd International Conference on Coordination Models and Languages, 25-30 June, Malta.  
  
**7.** Reactive Actors: Isolation for Efficient Analysis of Distributed Systems. Sirjani Marjan, Khamespanah Ehsan, Ghassemi Esfahani Fatemeh (2019)., 2019 IEEE/ACM 23rd International Symposium on Distributed Simulation and Real Time Applications (DS-RT), 7-9 October, United States.  
  
**8.** Hybrid Rebeca: Modeling and Analyzing of Cyber-Physical Systems. Jahandideh Iman, Ghassemi Esfahani Fatemeh, Sirjani Marjan (2018)., 8th International Workshop on Model-Based Design of Cyber Physical Systems (cyphy2018), 4-5 October, Torino, Italy.  
  
**9.** Reo Connectors and Components as Tagged Signal Models. Sirjani Marjan, Ghassemi Esfahani Fatemeh, Pourvatan Bahman (2018)., It s All About Coordination, 7 May, Amsterdam, Netherlands.  
  
**10.** Purpose-based Policy Enforcement in Actor-based Systems. Riahi Shahrzad, Khosravi Ramtin, Ghassemi Esfahani Fatemeh (2017)., 7th International Conference on Fundamentals of Software Engineering, 26-28 April, Tehran, Iran.  
  
**11.** Automatic Transition System Model Identifications for Network Applications from Packet Traces. Sabahi Kaviani Zeynab, Ghassemi Esfahani Fatemeh, Bajelan Fateme (2017)., 7th International Conference on Fundamentals of Software Engineering, 26-28 April, Tehran, Iran.  
  
**12.** Promotion e-Health Services for Rural and Less Developed Regions through Cyber Physical Systems (CPS). Taghiyareh Fattaneh, Khonsari Ahmad, Shakery Azadeh, Kargahi Mehdi, Ghassemi Esfahani Fatemeh, Mohammadi Siamak (2016)., The First National Conference on Universal Service Obligation (USO) for ICT in Rural and Less Developed Regions, 5 December, Tehran, Iran.  
  
**13.** Modeling and Efficient Verification of Broadcasting Actors. Yousefi Behnaz, Ghassemi Esfahani Fatemeh, Khosravi Ramtin (2015)., 6 international on Fundamentals of Software Engineering 2015, 22-24 April, Tehran, Iran.  
  
**14.** Probabilistic Key Pre-distribution for Heterogeneous Mobile Ad hoc Networks Using Subjective Logic. احمدی مهدیه, Gharib Mohammad, Ghassemi Esfahani Fatemeh, موقر علی (2015)., The 29th IEEE International Conference on Advanced Information Networking and Applications, 25 March-27 May, South Korea.  
  
**15.** An Analysis of Vendor Lock-in Problem in Cloud Storage. Razavian Majid, Khani Hadi, Yazdani Naser, Ghassemi Esfahani Fatemeh (2013)., International Conference on Computer and Knowledge Eng. 2013, 31 October-1 November, Mashhad, Iran.  
  
**16.** Model checking MANETs with arbitrary mobility. Ghassemi Esfahani Fatemeh, Saeedeh Ahmadi, Wan Fokkink, Ali Movaghar (2013)., 5th International Conference on Fundamentals of Software Engineering-FSEN13, 24-26 April, Tehran, Iran.

**HONORS and AWARDS**

**ACADEMIC POSITIONS**

**COURSES OFFERED**

**Process Algebra and Automata Theory  
  
Compiler design and programming languages  
  
Modeling and Formal Verification of Reactive and Concurrent Systems  
  
Process Algebra and Automata Theory  
  
Systems Analysis and Design  
  
Compiler design and programming languages  
  
Modeling and Formal Verification of Reactive and Concurrent Systems  
  
Compiler design and programming languages  
  
Modeling and Formal Verification of Reactive and Concurrent Systems  
  
Process Algebra and Automata Theory  
  
Systems Analysis and Design  
  
Compiler Design and Implementation  
  
Modeling and Formal Verification of Reactive and Concurrent Systems  
  
Industrial Training  
  
Process Algebra and Automata Theory  
  
Systems Analysis and Design  
  
Compiler Design and Implementation  
  
Modeling and Formal Verification of Reactive and Concurrent Systems  
  
Special Subjects 3  
  
Systems Analysis and Design  
  
Compiler Design and Implementation  
  
Special Subjects 3  
  
Systems Analysis and Design  
  
Compiler Design and Implementation**

**LABORATORIES**

**Formal Methods and System Verification Lab**