

CURRICULUM VITAE

MAHBOUBEH AFZALI

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RESEARCH INTERESTS

- Resource allocation in computer networks
- Fault tolerance in wireless networks
- fog computing and virtualization
- Sequencing and Scheduling
- Logistics and Supply Chain Planning
- Production and Operations Management
- Decision making under uncertainties

EDUCATION

University of Technology Malaysia (UTM), Malaysia
Faculty of Computer Science and Information Systems
Department of Communication and Computer Systems

Ph.D. in Computer Science

2015

GPA: A

Thesis: Cross Layer Routing and Scheduling for Multi-Channel WiMAX Mesh Networks

Islamic Azad University, Iran

Faculty of Computer Engineering

M.Eng. in Computer Engineering, Architecture of Computer Systems

2007

GPA: 17.17/20

Thesis: Improving Availability of WiMAX Mesh Network with Emphasis on Connectivity

Shahid Bahonar University of Kerman, Kerman, Iran

Faculty of Computer Engineering

B.Eng. in Computer Engineering, Hardware Engineering

2004

GPA: 15.82/20

Thesis: Implementation of Forums Using ASP.Net and SQL Server 2000

HONORS & AWARDS

- International Doctoral Fellowship (IDF), University Technology Malaysia, 2011-2012.
- International Doctoral Fellowship (IDF), University Technology Malaysia, 2012-2013.
- Best Paper in 4th International Conference on Environmental and Computer Science (ICECS), paper titled “*Ambient Air Temperature Forecasting Using Artificial Neural Network Approach*”, Singapore, 16-18 Sep 2011.
- Ranked 2nd among students in the B.Eng. degree of Computer Engineering, April 2004.

PUBLICATIONS

- Mahsa Saeedi Goraghani, **Mahboubeh Afzali**, Fazel Sharifi, “A Reliable and Load Balancing Controller Placement Method in Software-Defined Networks” , International Journal of Communication Systems, 38(2), e6059, 2025
- **Mahboubeh Afzali**, Amin Mohammad Vali Samani, Hamidreza Naji, “An efficient resource allocation of IoT requests in hybrid fog-cloud environment”, Journal of Supercomputing (IF:3.3), 4600–4624, January 2024.
- **Mahboubeh Afzali**, “An Efficient Hybrid Decision-making Model for Sustainable Supplier Selection (Case Study: Parts Supply Industry)”, Environmental Energy and Economic Research (EEER), Vol. 5, Issue 4, pp 1-12, 2021.
- Zahra Sadeghi, **Mahboubeh Afzali**, “Three-decade of Soft Computing Application in Energy Price Forecasting: A Bibliometric Analysis”, Environmental Energy and Economic Research (EEER), Accepted, 2025.
- **Mahboubeh Afzali**, “A hybrid MCDM model for evaluation of e-learning platforms of the Municipal organization”, Journal of Urban Management and Environmental Engineering, 2025.
- **Mahboubeh Afzali**, Hamid Pourmohammadi, Amin Mohammad Vali Samani, “An efficient framework for Trust Evaluation of Secure Service Selection in Fog Edge Computing based on QoS, Reputation and Social Criteria”, Computing Journal (IF:2.42), Vol. 104, Issue 7, pp 1643-1675, 2022.
- **Mahboubeh Afzali**, Afsaneh Afzali, Hamid Pourmohammadi, “An Interval-Valued Intuitionistic Fuzzy-based CODAS for sustainable supplier selection”, Soft Computing Journal (IF:3.732), 2022, Online Published.
- **Mahboubeh Afzali**, Kamalrulnizam Abu Bakar, Kayhan Zrar Ghafoor, Jaime Lloret, “Improving the Communication Path Reliability of WiMAX Mesh Network using Multi Sponsor Node Technique”, Telecommunication Systems (IF: 2.336), Vol. 60, PP. 133-141, January 2015.
- Afsaneh Afzali, M. Rashid, **Mahboubeh Afzali**, Vahid Younesi “Prediction of Air Pollutants Concentrations from Multiple Sources Using AERMOD coupled with WRF Prognostic Model”, Journal of Cleaner Production (IF:11.072), Vol. 66, PP. 1216-1225, 2017.
- **Mahboubeh Afzali**, Mahmood Fathy, Majid Harouni, Kamalrulnizam Abu Bakar, “Fault Tolerance Analysis Among Subscriber Stations in the WiMAX Mesh Network (Text in Persian)”, Journal of Intelligent Procedures in Electrical Technology, Vol. 8, PP:25- 33, March 2011.
- **Mahboubeh Afzali**, Kamalrulnizam Abu Bakar, Jaime Lloret, “Adaptive Resource Allocation for WiMAX Technology”, Wireless Personal Communications (IF:2.017),2019 .
- Mahsa Saeedi, **Mahboubeh Afzali**, Fazel Sharifi, “An efficient load balancing method for multi-controller placement in SDN”, 8th National and Second International Conference on Distributed Computing and Big Data Processing, October 2023.
- Narges Saedi, **Mahboubeh Afzali**, Mohammad Mehdi Faghieh, “An efficient coordination method in the integrated supply chain by considering cost optimization”, 9th International Conference on Industrial and System Engineering, September 2023.
- Majid Harouni, Dzulkifli Mohamad, Mohd Shafry Mohd Rahim, Sami M. Halawanic, **Mahboubeh Afzali**, “Handwritten Arabic Characters Recognition based on Minimal Geometric”, International Journal of Machine Learning and Computing, Scopus, Vol. 2, No. 5, PP. 578-582, October 2012.
- **Mahboubeh Afzali**, “An efficient recommendation system for IoT applications”, 14th International Conference on Decision and Data Envelopment Analysis, Shahrood University of Technology, September 2022.
- **Mahboubeh Afzali**, “The obstacles imposed by Covid-19 on supply chain management”, 14th International Conference on Decision and Data Envelopment Analysis, Shahrood University of Technology, September 2022.
- **Mahboubeh Afzali**, “Evaluation of business-to-consumer e-commerce”, 5th National Conference on Technology in Electrical and computer Engineering (tec2021), 2021.
- Somayeh Ghiasi Hafezi, Sohrab Effati, **Mahboubeh Afzali**, “Investigating the factors of infertility with female cause of ART baruchs using decision tree algorithm and

regression”, 8th International Conference on Industrial and System Engineering, September 2022.

- Hossein Ghaffarian, **Mahboubeh Afzali**, “*Investigation of Wireless Metropolitan Area Network Effort of Information and Communication Technology Development*”, 1st International Conference on (M4D) Mobile Communication Technology for Development, Karlstad, Sweden, December 2008.
- **Mahboubeh Afzali**, Hossein Ghaffarian, Mahmoud Fathy, “*Maximum Use of Channel Bandwidth in Mesh WiMAX Network Using Concurrent Transmission*”, 13th Computer Society of Iran(Cisco) Iran, March 2007.(Persian).
- Amir Karamoozian, Abdelhakim Hafid, Mustapha Boushable, **Mahboubeh Afzali**, “*QoS-aware Resource Allocation for Mobile Media Services in Cloud Environment*”, The 13th Annual IEEE Consumer Communications and Networking Conference(CCNC), January 2016, Las Vegas, USA.
- **Mahboubeh Afzali**, Hossein Ghaffarian, “*Efficient Use of Channel Bandwidth Using Concurrent Transmission*”, 5th IEEE GCC Conference and Exhibition, Kuwait, March 2009.
- **Mahboubeh Afzali**, Majid Harouni, Vahid Khatib “*Connection Availability Analysis in the Wireless Mesh Network*”, 2nd International Conference on Computer and Automation Engineering (ICCAE 2010), Singapore, February 2010.
- Atefeh Taheri, **Mahboubeh Afzali**, Vahid Khatibi, “*A New Hybrid Intelligent Method for Diagnosing on Diabetes Mellitus*”, World Academy of Science, Engineering and Technology(WASET), Singapore, August 2010.
- **Mahboubeh Afzali**, Afsaneh Afzali, Gholamreza Zahedi, “*Ambient Air temperature Prediction Using Artificial Neural Network: A Case study of Kerman, Iran*”, 4th International Conference on Environmental and Computer Science, ICECS 2011.
- **Mahboubeh Afzali**, Kamalrulnizam Abu Bakar, “*New Approach for Channel Assignment in WiMAX Mesh Network*”, Pervasive Computing Research Group-Postgraduate Annual Research Seminar (PARS-2011), June 2011.
- Afsaneh Afzali, Mahboubeh Afzali, M. Rashid, B. Sabaria, “*Prediction of Ozone Concentration Based on Temperature in an Urban Area Using Artificial Neural Network Approach*”, ANNALS OF TROPICAL MEDICINE & PUBLIC, Scopus, Accepted.
- **Mahboubeh Afzali**, “*An effective method for drought prediction in Kerman Province based on deep learning methods*”, 2025
- **Mahboubeh Afzali**, Hossein Ghaffarian, “*Enhancing Throughput of WiMAX Mesh Network through Scheduling Method*”, Islamic Azad University(Team Work).
- Atefeh Taheri, **Mahboubeh Afzali**, Vahid Khatibi, “*Development of New Predication Method for Diabetic Diagnosis based on PNN and SVM Classification Algorithms*”, Islamic Azad University (Team Work).
- **Mahboubeh Afzali**, Afsaneh Afzali, Mohammad Jamal Vali Samani, “*Real-time Temperature Prediction Using Heuristic Algorithm in Kerman City*”, Islamic Azad University (Team Work).
- Afsaneh Afzali, **Mahboubeh Afzali**, Mohammad Jamal Vali Samani, “*Prediction of Ozone Concentration Based on Ambient Temperature Using Artificial Neural Network (Case Study: Kerman City)*” University of Kashan (Team Work).
- Implementation of Finding Minimal CutSets in Fault Tree, (Team Work).

RESEARCH EXPERIENCES

REVIEWER of JOURNALS

- Journal Of Cleaner Productions, Elsevier
- Wireless Networks, Springer
- Wireless Personal Communications, Springer
- Supercomputing Journal, Springer
- Mobile networks and Applications, Elsevier
- Soft Computing, Springer

PROFESSIONAL EXPERIENCE

- Social Security Organization, Network Administrator
- Supervisor of Robotic team of Islamic Azad University in the Robotic Competition, Brojerd, Iran, February 2009.
- Supervisor of Sama Professional Technical team in the National Computer Skills Competition, Tabriz, Iran, June 2008.

CERTIFICATES

- Cisco Network Associate, Iran.
 - ❖ **Standard Code:** 9201733928
 - ❖ **Date:** 2014/03/03 (Date of Issue of the first certificate)
- “CCNP Switch”, Technical Institute of Tehran, Iran.
 - ❖ **Standard Code:** 366938
 - ❖ **Date:** 2016/12/22 (Date of Issue of the first certificate)
- “CCNP Route”, Technical Institute of Tehran, Iran.
 - ❖ **Standard Code:** 366938
 - ❖ **Date:** 2017/02/12 (Date of Issue of the first certificate)
- “Oracle Database: Administration Workshop I”, Asre Danesh Afzar, Iran, 2016.
- “Oracle Database: Administration Workshop II”, Asre Danesh Afzar, Iran, 2016
- “Configuring Windows 8.1”, Technical Institute of Tehran, Iran, 2016.
- “Windows Server 2000”, Technical Institute of Tehran, Iran, 2016.
- “Multimedia Information Technology”, Information Technology Center, December 2001.
 - ❖ **Standard Code:** 80/0-84/21
 - ❖ **Date:** 2001/12/21 (Date of Issue of the first certificate)
- “Computer Animation techniques: Motion Data management” Certificate, Department of Computer Graphics and Multimedia, University Technology Malaysia, Oct 2010.
- “Creating Weblog” Certificate, Youth Research Club, Iran
- “Wan Network” Certificate, Tamin Tehran, Iran, October 2009.
- “Introduction to Writing for Publication in English for Postgraduates” Certificate, the English Language Unit, Centre for Teaching and Learning, University Technology Malaysia, March 2010.

MEMBERSHIP SOCIETIES

- Member of Computer Society of Iran(CSI)
- Member of International Association of Computer Science and Information Technology (IACSIT)
- Member of Young Researcher Club, Iran

LANGUAGES

- Persian (Mother Tongue)
- English (IELTS:6.5)
 - Reading: 7.5
 - Writing: 6.5
 - Speaking: 6.5
 - Listening: 6

TECHNICAL SKILLS

- **Programming Languages**
 - ❖ C++, C#.Net, Matlab, Java,
- **Cisco Network**
 - ❖ CCNA, CCNP Route, CCNP Switch
- **Web Development**
 - ❖ HTML, ASP, ASP.Net.
- **Database Systems**
 - ❖ SQLServer, MySql. Administration of Oracle Database,

- **Statistics Software**
 - ❖ SPSS
- **Decision Making**
 - ❖ EXPERT CHIOCE, Super Decision Making
- **Numerical Weather Prediction Models**
 - ❖ Weather Research & Forecasting (WRF)
- **Air Quality Models**
 - ❖ CAMx, AERMOD,

REFEREES

- Prof. Kamalrulnizam Abu Bakar [Email: knizam@utm.my]
Faculty of Computer Science and Information Systems,
University Technology Malaysia-81310 Johor Bahru- Malaysia
- Prof. Jaime Lloret Mauri [Email: jlloret@dcom.upv.es]
Department of Communications,
Polytechnic University of Valencia
Camino de Vera 46022, Valencia – Spain
 - Associated Prof. Dr. Hamid Pourmohammadi [Email: hamid@csudh.edu]
Information System and Operations Management Department
California State University, Dominguez Hills, Carson, CA, USA
California State University
- Associated Prof. Dr. Mahmood Fathy [Email: mahfathy@iust.ac.ir]
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- Assistant Prof. Maliheh Bahadori [Email: m_bahadori@sbu.ac.ir]
Department of Computer Engineering,
Shahid Beheshti University, Tehran, Iran