europass Curriculum vitae

PERSONAL INFORMATION

Mohammad Samadi Gharajeh

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Sex Male | Date of birth 19 Jun 1984 | Nationality Iranian

WORK EXPERIENCE

10/2011–Present — **Researcher / Independent Consultant**

Young Researchers and Elite Club, Islamic Azad University, Tabriz (Iran)

Tasks: publication of scientific papers in international journals, participation in monthly meetings

09/2014–Present — **Lecturer of University**

Seraj University, Tabriz (Iran)

Teaching courses: programming languages, databases, software engineering, website design, digital logic circuits, computer architecture

09/2014–01/2015 — **Lecturer of University**

Aras Higher Education Institute, Tabriz (Iran)

Teaching course: computer applications in accounting

09/2014–06/2015 — **Lecturer of University**

University of Applied Sciences and Technology, Tabriz (Iran)

Teaching courses: information technology, programming languages for web development

05/2013–Present — **Student Supervision**

Islamic Azad University (Iran)

Tasks: supervise and advise graduate students to prepare their theses in computer systems such as wireless sensor networks, cloud computing, and control systems LINK1 LINK2

The number of the supervised and advised students: 39

02/2015–Present — **Software developer**

SelcoSoft Software Group, Tabriz (Iran)

Tasks: team director, system analyst, software developer, database administrator

Projects: management and financial software system for civil companies, cost estimation software for concrete buildings, educational system scheduling for educational institutes, first-level accounting app for individuals

02/2010–11/2014 — **Founder and manager**

ShayaMehrPardaz Company, Tehran (Iran)

Tasks: founder, manager, system analyst, software developer, database administrator

Projects: accounting software for shop stores, financial management of industrial accounting systems, mental arithmetic software for mathematical operations in UCMAS institutes, IVR software for taxi

services, commercial website of an educational institute, association plan software for civil tasks, design of a 3D villa environment

01/2004–09/2009

Software developer

Andishmandan Farzaneh Company, Tabriz (Iran)

Tasks: system analyst, software developer, network administrator

Projects: management software for civil companies, accounting software for flower market stores, commercial website of an industrial company

07/2002–10/2003

ICT network technician

Famer Rayaneh Group, Tabriz (Iran)

Tasks: network technician, PC assembler, hardware seller

Projects: several Intranet systems for small and large organizations

04/2001–05/2002

Software developer

Elco Software Group, Tabriz (Iran)

Tasks: programmer, software tester

Projects: accounting automation for municipal organizations

EDUCATION AND TRAINING

01/2010–02/2013

Master of Science (Computer Engineering - Computer Systems Architecture)

Islamic Azad University, Tabriz (Iran)

Thesis title: navigation control of agent automobiles using wireless sensor network, *Supervisor:* Prof. Sohrab Khanmohammadi, *Advisor:* Dr. Majid Haghparast

Thesis abstract: In this thesis, a smart fire system is proposed to predict, control, and alert fire occurrences by using multiple fuzzy-based methods. This system aids less energy to be consumed for transmitting various messages between wireless nodes, network traffic to be reduced over the network, and network lifetime to be prolonged consequently. The proposed routing protocols are, generally, grouped into two categories: static and dynamic. The static protocols are used to transmit data packets between the stationary nodes placed on different locations. The dynamic protocols direct, control, and transmit messages between vehicles and rescue team members. Besides, several fuzzy systems are offered to detect the explosion possibility, recognize the fire probability, measure the intensity and volume of fire, estimate the fire progress, detect the burning possibility, and recognize the suffocation probability. In addition, the system determines the active and passive nodes as well as detects faulty nodes throughout the network. Rescue teams are dispatched to events on the best path, between fire department and event place, which is selected by another fuzzy system. This procedure leads the rescue and support teams to be dispatched to events in a short time. Simulation and evaluation results show that the proposed fire system has a high performance compared to the most existing fire systems.

GPA: 18.09/20.00

02/2007–02/2009

Bachelor of Science (Engineering of Computer Software Technology)

University of Applied Sciences and Technology, Tabriz (Iran)

Final project: development of a thesis management software for universities

GPA: 17.17/20.00

02/2003–02/2005

Associate of Science (Computer Software)

University of Applied Sciences and Technology, Tabriz (Iran)

Final project: development of a word processing software

GPA: 18.04/20.00

09/2001–06/2002

Pre-university Studies (Mathematical Sciences)

Osveh Pre-university Center, Tabriz (Iran)

GPA: 17.73/20.00

09/1998–06/2001

Secondary Studies (Mathematics & Physics)

Osveh High School, Tabriz (Iran)

GPA: 18.24/20.00

PERSONAL SKILLS

Mother tongue(s): Azerbaijani

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	C1	C1	C1
Turkish	A2	A2	B1	B1	A1
Persian	C2	C2	C2	C2	C2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem-solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital skills - Self-assessment grid

Academic skills:

- *Programming languages:* C/C++, Java, Python, VHDL, Lua
- *libraries:* OpenCV
- *Development and design environments:* MATLAB, Active-HDL, ModelSim, Quartus, Viptos, NS-2, CodeVision AVR, BASCOM-AVR, Proteus, Xilinx ISE Design Suite, V-REP, Gazebo
- *Middlewares:* Robot Operating System (ROS), TinyOS

Technical skills:

- *Programming languages:* QBasic, Visual Basic, Pascal, C, C++, Java, Assembly, SQL, C#, HTML, CSS, XML, JavaScript, VBScript, ASP, ASP.NET, ASP.NET MVC, VB.NET, C#.NET, PHP, Ruby
- *Development environments*: Microsoft Visual Studio, Delphi, Eclipse, Google Android Studio, NetBeans, Adobe Dreamweaver, Dev-C++, phpMyAdmin
- *Content management systems*: Joomla, WordPress, Drupal, DataLife Engine, DotNetNuke, PrestaShop, TinyCMS
- *Database environments*: Microsoft Access, Microsoft SQL Server, Oracle, MySQL, SQLite
- *Graphic environments*: Microsoft Visio, Adobe Photoshop, Edraw Max
- *Operating systems*: MS-DOS, Microsoft Windows, Linux Fedora/Ubuntu, Android
- *Other skills:* most Microsoft Office platforms, computer networking, e-commerce, networking marketing

Driving licence B

ADDITIONAL INFORMATION

Certifications

- Editorial board member, technical program committee, and reviewer of the international journals and conferences
- IEEE Continuing Education Certificate
- Lecturer of university
- Membership at international communities

Honours and awards

- *May 2011:* The conference paper entitled “Investigate the Attacks on the Physical Layer and Multi-layer Attacks on RFID and Offer Solutions for Dealing with Them” was selected as one of the best papers presented in *Proceedings of the National Conference on Electrical and Computer Engineering, Islamic Azad University of Neyriz, Neyriz, Fars, Iran*
- *February 2007:* Admission to Bachelor of Science at *University of Applied Sciences and Technology* because of being elected as an elite student
- *February 2005:* Elected as one of the three top students in Associate of Science at *University of Applied Sciences and Technology*
- *September 1998:* Admission to Secondary Studies at *Osveh High School* because of being elected as one of the elite students

Memberships

International and national communities:

- Institute of Electrical and Electronics Engineers (IEEE), Member Number: 92465759
- International Association of Engineers (IAENG), Member Number: 157858
- Young Researchers and Elite Club, Islamic Azad University, Member Code: 9015102039

Editorial board member of journals:

- International Journal of Information Security and Privacy
- International Journal of End-User Computing and Development
- Journal of Approximation Theory and Applied Mathematics
- Research & Reviews: Journal of Statistics and Mathematical Sciences
- International Journal of Sensor Networks and Data Communications
- American Journal of Sensor Technology
- International Journal of Sensors and Sensor Networks
- American Journal of Networks and Communications
- American Journal of Electrical and Electronic Engineering
- International Journal of Wireless Communications and Mobile Computing
- SCIREA Journal of Computer
- International Journal of Advances in Electronics and Computer Science
- International Journal of Research Studies in Computer Science and Engineering
- International Journal of Advanced Studies in Computer Science and Engineering
- GPH-International Journal of Computer Science and Engineering

Reviewer of journals:

- Applied Soft Computing
- Journal of Circuits, Systems and Computers
- International Journal of Computers Communications & Control
- International Journal of Communication Systems
- IEEE Access

- IET Communications
- South African Computer Journal
- Journal of Wireless Networking and Communications
- International Journal of Networks and Communications
- Computer Science and Engineering (Scientific & Academic Publishing)
- World Scientific and Engineering Academy and Society
- American Journal of Software Engineering and Applications
- Automation, Control and Intelligent Systems
- Advances in Networks
- International Journal of Electrical, Electronics and Data Communication
- International Journal of Cyber-Security and Digital Forensics
- International Journal of Digital Information and Wireless Communications
- International Journal of New Computer Architectures and Their Applications
- Recent Patents on Computer Science

Technical program committee of conferences:

- 3rd International Conference on Micro-Electronics and Telecommunication Engineering (ICMETE) 2019
- 2nd International Conference on Electronics & Electrical Engineering (ICEEE-2019)
- 2nd International Conference on Micro-Electronics and Telecommunication Engineering (ICMETE) 2018
- The 2018 International Conference on Control, Automation and Electrical Systems [ICCAES2018]
- IEEE International Conference on Micro-Electronics and Telecommunication Engineering (ICMETE) 2016
- International Conference on Artificial Intelligence and Computer Engineering (AICE) 2016
- 6th World Congress on Electrical Engineering, Computer Science and Information Technology (WCECIT) 2016
- International Conference on Computers and Management (ICCM) 2015

Reviewer of conferences:

- 3rd International Conference on New Trends in Information & Communications Technology Applications (NTICT'2018)
- IEEE International Symposium on Circuits and Systems (ISCAS) 2018
- 3rd International Conference on Computers and Management (ICCM) 2017
- IEEE Biomedical Circuits and Systems Conference (BIOCAS) 2017
- 2nd International Conference on Computers and Management (ICCM) 2016
- International Conference on Cyber Security (ICCS) 2016

Editorial advisory board of books:
Design and Use of Virtualization Technology in Cloud Computing, IGI Global, 2017. ISBN: 9781522527855

The number of the refereed and reviewed papers: 540

Projects

Individual projects:

- ClimateRobo: an autonomous intelligent mobile robot for climate purposes LINK
- AutoFanSys: an automatic knowledge-based fan system LINK
- Simulation of around 50 scientific papers in MATLAB and Visual C++

- Simulation of three computer circuits in Active-HDL and ModelSim
- Design of three computer architectures in Electronics Workbench
- Thesis management software for universities
- Billing and invoice software for fast food shops
- Simple search engine to collect news from various news websites

Publications

Books:

M. S. Gharajeh, *The Significant Concepts of Cloud Computing: Technology, Architecture, Applications, and Security*. Seattle: CreateSpace Independent Publishing Platform, 2015.

Book chapters:

- M. S. Gharajeh, "Biological Big Data Analytics," in *A Deep Dive into NoSQL Databases: The Use Cases and Applications, Volume 109*, P. Raj and G. C. Deka, Eds. Cambridge: Elsevier, 2018, pp. 321-355.
- M. S. Gharajeh, "Big Data Analytics for Connected Intelligence with the Internet of Things," in *Big Data Analytics: Tools and Technology for Effective Planning*, A. K. Somani and G. C. Deka, Eds. Boca Raton: Chapman & Hall/CRC, 2017, pp. 335-354.
- M. S. Gharajeh, "Applications of Virtualization Technology in Grid Systems and Cloud Servers," in *Design and Use of Virtualization Technology in Cloud Computing*, P. K. Das and G. C. Deka, Eds. Hershey, PA: IGI Global, 2017, pp. 1-28.
- M. S. Gharajeh, "Security Issues and Privacy Challenges of NoSQL Databases," in *NoSQL: Database for Storage and Retrieval of Data in Cloud*, G. C. Deka, Ed. Boca Raton: Chapman and Hall/CRC, 2017, pp. 271-290.
- M. S. Gharajeh, "A Learning Analytics Approach for Job Scheduling on Cloud Servers," in *Learning Analytics: Fundaments, Applications, and Trends*, A. Peña-Ayala, Ed. Berlin: Springer, 2017, pp. 269-302.
- M. S. Gharajeh, "SFRRP: 3D Fuzzy Routing for Wireless Sensor Networks," in *Advances in Control and Mechatronic Systems, Volume: I*. Anaheim: United Scholars Publications, 2016, pp. 87–108.

Journal papers:

- F. Bu and **M. S. Gharajeh**, "Intelligent and Vision-based Fire Detection Systems: a Survey," *Image and Vision Computing* (Impact Factor: 2.747), 2019 (in press).
- M. S. Gharajeh, "A Novel Value-based Multiplier Architecture to Multiply BCD Numbers by Powers of 10," *International Journal of Computer Aided Engineering and Technology*, 2019 (in press).
- M. S. Gharajeh, "Waterative Model: an Integration of the Waterfall and Iterative Software Development Paradigms," *Database Systems Journal*, vol. X, pp. 75–81, Aug. 2019.
- M. S. Gharajeh, "A Dynamic Replication Mechanism in Data Grid Based on a Weighted Priority-based Scheme," *i-manager's Journal on Cloud Computing*, vol. 6, no. 1, pp. 9–18, Aug. 2019.
- M. S. Gharajeh, "Implementation of an Autonomous Intelligent Mobile Robot for Climate Purposes," *International Journal of Ad Hoc and Ubiquitous Computing* (Impact Factor: 0.705), vol. 31, no. 3, pp. 200–218, Jun. 2019.
- M. S. Gharajeh, "FSB-System: A Detection System for Fire, Suffocation, and Burn Based on Fuzzy Decision Making, MCDM, and RGB Model in Wireless Sensor Networks," *Wireless Personal Communications* (Impact Factor: 1.20), vol. 105, no. 4, pp. 1171–1213, Mar. 2019.
- M. S. Gharajeh, "T*: A Weighted Double-heuristic Search Algorithm to Find the Shortest Path," *International Journal of Computing Science and Mathematics*, vol. 10, no. 1, pp. 58–70, Jan. 2019.
- M. S. Gharajeh, "Behavior-Based Decision Making: A Tutorial," *International Journal of Dynamics and Control*, vol. 6, no. 4, pp. 1816–1840, Dec. 2018.
- M. S. Gharajeh, "A Neural-MCDM-Based Routing Protocol for Packet Transmission in Mobile Ad Hoc Networks," *International Journal of Communication Networks and Distributed Systems*, vol. 21, no. 4, pp. 496–527, Sept. 2018.
- S. Khanmohammadi and **M. S. Gharajeh**, "An Intelligent and Knowledge-based Overlapping Clustering Protocol for Wireless Sensor Networks," *International Journal of Communication*

Systems (Impact Factor: 1.717), vol. 31, no. 10, pp. e3577, Jul. 2018.

- M. S. Gharajeh, "To Measure the Perimeter of an Ellipse Using Image Processing and Mathematical Reasoning," *International Journal of Research Studies in Computer Science and Engineering*, vol. 4, no. 4, pp. 15–21, Oct. 2017.
- S. Khanmohammadi and **M. S. Gharajeh**, "A Routing Protocol for Data Transferring in Wireless Sensor Networks Using Predictive Fuzzy Inference System and Neural Node," *Ad Hoc & Sensor Wireless Networks* (Impact Factor: 1.034), vol. 38, no. 1-4, pp. 103–124, Sept. 2017.
- **M. S. Gharajeh**, M. A. Zivayeki, and S. Askari, "SMIER: An SVM and MCDA Based, Intelligent Approach for Enhanced Reliability in Wireless Sensor Networks," *i-manager's Journal on Communication Engineering and Systems*, vol. 6, no. 3, pp. 1–8, Sept. 2017.
- M. S. Gharajeh, "Sensory Life in Sensory World," *i-manager's Journal on Wireless Communication Networks*, vol. 5, no. 4, pp. 32–44, Jul. 2017.
- **M. S. Gharajeh** and R. Hassanzadeh, "Improving the Fault Tolerance of Wireless Sensor Networks by a Weighted Criteria Matrix," *The Mediterranean Journal of Electronics and Communications*, vol. 13, no. 1, pp. 1–6, Jan. 2017.
- **M. S. Gharajeh** and S. Khanmohammadi, "DFRTP: Dynamic 3D Fuzzy Routing Based on Traffic Probability in Wireless Sensor Networks," *IET Wireless Sensor Systems* (ISI Listed), vol. 6, no. 6, pp. 211–219, Dec. 2016.
- **M. S. Gharajeh** and M. Alizadeh, "OPCA: Optimized Prioritized Congestion Avoidance and Control for Wireless Body Sensor Networks," *International Journal of Sensors, Wireless Communications and Control*, vol. 6, no. 2, pp. 118–128, Aug. 2016.
- M. S. Gharajeh, "Avoidance of the energy hole in wireless sensor networks using a layered-based routing tree," *International Journal of Systems, Control and Communications*, vol. 7, no. 2, pp. 116–131, May 2016.
- **M. S. Gharajeh** and S. Khanmohammadi, "Dispatching Rescue and Support Teams to Events Using Ad Hoc Networks and Fuzzy Decision Making in Rescue Applications," *Journal of Control and Systems Engineering*, vol. 3, no. 1, pp. 35–50, Mar. 2015.
- M. S. Gharajeh, "Determining the State of the Sensor Nodes Based on Fuzzy Theory in WSNs," *International Journal of Computers Communications & Control* (Impact Factor: 0.694), vol. 9, no. 4, pp. 419–429, Aug. 2014.
- **M. S. Gharajeh** and S. Khanmohammadi, "Static Three-Dimensional Fuzzy Routing Based on the Receiving Probability in Wireless Sensor Networks," *Computers*, vol. 2, no. 4, pp.152–175, Nov. 2013.
- M. N. Cheraghlou, S. Babaie, and **M. Samadi**, "LRC: Novel Fault Tolerant Local Re-Clustering Protocol For Wireless Sensor Network," *JOURNAL OF COMPUTING*, vol. 4, no. 8, pp. 99–104, Aug. 2012.
- **M. S. Gharajeh** and M. Haghparast, "On Design of a Fault Tolerant Reversible 4-Bit Binary Counter with Parallel Load," *Australian Journal of Basic and Applied Sciences* (ISI Listed), vol. 6, no. 7, pp. 430–446, Jul. 2012.
- M. Haghparast and **M. S. Gharajeh**, "Design of a Nanometric Reversible 4-Bit Binary Counter with Parallel Load," *Australian Journal of Basic and Applied Sciences* (ISI Listed), vol. 5, no. 7, pp. 63–71, Jul. 2011.

Conference papers:

- F. B. Aghdam, A. Ghaffari, and **M. S. Gharajeh**, "Investigate the Attacks on the Network-Transport Layer and Application Attacks on RFID and Solutions for Dealing with Them," in *Proceedings of the National Conference on Electrical and Computer Engineering, Islamic Azad University of Neyriz, Neyriz, Fars, Iran*, May 28–29, 2011, pp. 1–8.
- F. B. Aghdam, S. Babaie, and **M. S. Gharajeh**, "Investigate the Attacks on the Physical Layer and Multi-layer Attacks on RFID and Offer Solutions for Dealing with Them," in *Proceedings of the National Conference on Electrical and Computer Engineering, Islamic Azad University of Neyriz, Neyriz, Fars, Iran*, May 28–29, 2011, pp. 1–9.

The number of under-review papers: 7

References references available upon request