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Dr. Mohsen Maadani

(Assistant Professor, Islamic Azad University)

General Information

- Date of Birth: January 15, 1980 (Age: 39)
- Place of Birth: Tehran
- Place of Residence: Tehran
- Marital Status: Married

Education

Feb 2007-Feb 2014:

Amirkabir University of Technology (AUT), Tehran, Iran
(Tehran Polytechnic)

Doctor of Philosophy (Ph.D.), Electronics Engineering

- Dissertation Grade: Excellent (18.51-20)
- Comprehensive Exam GPA: 17.25
- GPA: 17.03
- Dissertation Title: "Improvement of Wireless Industrial Network (Wireless Fieldbus) Analytical Model, form Delay and Reliability Perspective"
- Supervisor: Professor Seyed Ahmad Motamedi (Chancellor of the Tehran Polytechnic)

Sep 2003-Jan 2006:

Sharif University of Technology (SUT), Tehran, Iran

Master of Science (MSc.), Electronics Engineering

- GPA: 16.56
- Thesis Title: "Design of CMOS TransImpedance (TIA) and Limiting (LA) Amplifiers for High-Speed (10 Gbps) Optical Receivers(Integrated Circuit)
- Supervisor: Dr. M. Atarodi

Sep 1998-Marr 2003:

Amirkabir University of Technology (AUT), Tehran, Iran
(Tehran Polytechnic)

Bachelor of Science (BSc.), Biomedical Engineering

- GPA: 18.24
- ***Ranked 1st*** among 60 students
- Thesis Title: "Design and Implementation of GSR (Galvanic Skin Response) Biofeedback System"
- Scientific Committee Member of "Tapesesh" Student Magazine
- Training 1: Sina Hospital, Tehran, Iran (Medical Equipment Department)
- Training 2: Davinsa Biomedical Co, Tehran, Iran (Producing ECG and Exercise Test Equipment)

Sep 1998-Sep 2003:

Amirkabir University of Technology (AUT), Tehran, Iran
(Tehran Polytechnic)

Bachelor of Science (BSc.), Electronics Engineering

(University Top Student Opportunity to major a second course)

- GPA: 17.66
- **Ranked 2nd** among 30 students
- (Common items have been mentioned above)

Sep 1997-Jun1998:

Motahari College, Tehran, Iran

- GPA: 18.72

Sep 1994-Jun 1997:

Alborz High School, Tehran, Iran

Diploma in Mathematics and Physics

- GPA: 19.05

Honors

Dec 2015:

- **Outstanding Researcher of the year**, Faculty of Engineering, Shahr-e-Qods Branch, Islamic Azad University

Mar 2003:

- **Ranked 116th** among about 10,000 participants in National Graduate Entrance Exam

Sep 1998-Sep 2003:

- **Ranked Second** among 30 students, Electronics Engineering Department, Amirkabir University of Technology

Sep 1998-Mar 2003:

- **Ranked First** among 60 students, Biomedical Engineering Department, Amirkabir University of Technology

Jul 1998:

- **Ranked 27th** among about 100,000 participants in National Undergraduate Entrance Exam

Sep 1998-Sep 2003:

- Majoring **2 BSc. Degree** Engineering Courses Simultaneously (University Top Students Opportunity), Amirkabir University of Technology

Academic Experience

Shahr-e-Qods Branch, Islamic Azad University (IAU), Tehran, Iran

Jul 2007-Present:

Faculty Member – Department of Electrical Engineering

Graduate Courses:

- Mobile and Wireless Networks
- Wireless Communication Systems
- Industrial Networks (Microprocessor and Computer System Application in Industry)
- Advanced Microprocessors
- Theory and Manufacturing Technology of Semiconductor Devices (Semiconductor Fabrication Technology I)
- Interface Circuits
- Research Methodology
- Special Topics in Electrical Engineering (Internet of Things (IoT), Network Simulation, etc.)
- Seminar

- Thesis Supervisor and Advisor
- Undergraduate Courses:*
- Computer Networks
 - Communication Networks
 - Microprocessors
 - Microcomputer Technologies
 - Analysis of Electronic Circuits
 - Electronics I
 - Electronics II
 - Digital Logic Circuits
 - Computer Programming
 - Related Laboratories
 - Training
 - Thesis Supervisor

Dec 2018-Present: **Member of Research Council – Shahr-e-Qods Branch**

Sep 2018-Present: **Member of Laboratory Equipment Committee – Shahr-e-Qods Branch**

Mar 2015-Present: **Member of Educational Council – College of Engineering**

Apr 2010-Present: **Head – Department of Electrical Engineering**

Mar 2013-Aug 2014: **Associate Dean – College of Engineering**

Mar 2013-Aug 2014: **Secretary and Member of Research Council – College of Engineering**

Sep 2016-Present: **Science and Research Branch, Islamic Azad University (IAU), Tehran, Iran**

Instructor - Electrical Engineering graduate courses:

- Interface Circuits
- Thesis Supervisor and Advisor

Sep 2006-Jul 2007: **Yadegar Emam Branch, Islamic Azad University (IAU), Tehran, Iran**

Instructor - Electrical Engineering undergraduate courses:

- Electronics I
- Microprocessors
- Digital Logic Circuits
- Electronics I Laboratory
- Digital Logic Circuits Laboratory
- Final Project Supervisor

Feb 2005-Jun 2005: **Sharif University of Technology (SUT), Tehran, Iran**

Instructor and Teacher Assistant:

- Electronics I Laboratory (Instructor)
- Digital Logic Circuits (Teacher Assistant)

Technical Experience

Feb 2018-Present:

Niroy (Power) Research Institute (NRI), Tehran, Iran

Information and Communication Technology (ICT) Research Department, & Center of Technology Planning and Support for Digital Transformation in the Electricity Industry
Research Associate (Part time)

Projects:

- Investigation and identification of research challenges in the field of information and communication for the IoT applications in the electricity industry
- Digital Transformation in the Electricity Industry

Nov 2016-Feb 2018:

Smart Grid Technology Development Center – SGC (Electricity and Energy) **Director of Training, Promotion and Innovation (Part time);**

- SGC is the key executive of “Strategic Plan Document of Iran Smart Electricity Grid”
 - Executive: Dr. Mohammad Sadegh Ghazizadeh (President of NRI)
 - Deputy Executive: Dr. Davood Gharavian (Head of SGC)
- Iran Smart Cup (an Innovation and Entrepreneurship Festival in the field of Smart Products and Services)
 - Executive Secretary

Amirkabir University of Technology (AUT) **Tehran, Iran**

Smart Digital Systems Lab.

Oct 2017-Present:

Project Manager, Smart Fleet Management System (FMS) (Part time)

- Automatic Vehicle Location (AVL)
- Connected Car
- Container (Reefer) Tracker
- Mobile App
- Cloud Server
- Web Dashboard
- Smart Personal Trackers



Aug 2013-Sep 2015:

National Project **Senior Technical Engineer (Part time)**

- Developing the Strategic Plan Document of Iran Smart Electricity Grid Project
- Executive: Professor Seyed Ahmad Motamedi
- In contract with **Iranian Supreme Council for Science, Research and Technology (ATF)**

Jan 2006-Mar 2008:

ICS (Iran Control and Communication Systems Supply), Tehran, Iran

Senior Technical Engineer and Project Manager,

Communications Department and R&D Department

- ICS is the Exclusive Representative of Selta (Italy), and Representative of Huawei Technologies (China) in Power Substation Communication, Sia Microelectronica (Italy), Remsdaq (UK), in Iran.
- Communications Department Equipments include:
 - Analog Power Line Carrier (PLC), Digital Power Line Carrier
 - Analog Tele-protection Equipment (TPS), Digital Tele-protection Equipment
 - Network Access Multiplexer, HDSL/SHDSL Access Terminals
 - Euro-ISDN and IP-Capable Private Automatic Branch Exchange (PABX)
 - Microwave Communication Systems
 - Fiber Optic Communication Systems (SONET / SDH) and ...
- R&D Department Projects:
 - Design and Implementation of RTU (Remote Terminal Unit) Tester, used in SCADA , Fieldbus and Automation Systems (Finalized)



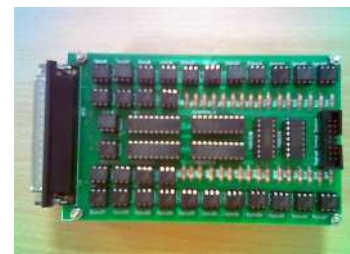
Back Panel



Front Panel



Main Board



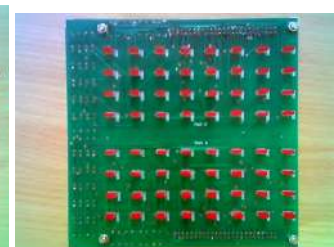
Digital Input Test



Analog Input Test



Digital Output Test



LED Display

Apr 2003-Mar 2005:

KVC (Karavazin Company), Tehran, Iran

Technical Engineer , Neurology Department

- Karavazin is the Exclusive Representative of several Medical Equipment Companies:

Viasys Health Care (Including Jeager, Toennies, Sensormedics, GSI, Nicolet &...) (USA), Magstim (UK), Maico & WeinMann (Germany)

- Job Responsibilities: Installation, Training and Servicing of Medical Equipments and Repairing Electronic Boards. Also I had lots of missions to other cities of Iran.
- Neurology Department Equipments include:
EMG (ElectroMyoGraphy), EEG (ElectroEncephaloGraphy), Magnetic Stimulator, IOM (Intra-Operative Nerve Monitor) & TCD (TransCranial Doppler).
- Acquainted with ENT Equipments (Audiometry & Tympanometry)
- Acquainted with Respiratory Equipments (Spirometry)

Book Chapters

- **M. Maadani**, "The IEEE 802.11 Standard," In S. A. Motamedi, "Wireless Sensor Networks," Chapter 4, Amirkabir University of Technology Press, 2015 (In Persian).
- M. Khayeri Dastgerdi, **M. Maadani**, "Medium Access Control (MAC) Protocols in Wireless Sensor Networks" In S. A. Motamedi, "Wireless Sensor Networks," Chapter 2, Amirkabir University of Technology Press, 2015 (In Persian).

Journal Papers

- S. A. F. G. Mirsaeid, **M. Maadani**, M. Zare, "Improving the Structural Health Monitoring System in Detection of Tiny Crack Locations using Wavelet Transform and Digital Filter," Journal of Modeling in Engineering, Vol. 17, No. 58, DOI:10.22075/jme.2019.16845.1668, Fall 2019 (in Persian. English Abstract). (**ISC**)
- F. Balsini, M. Mahdavi, **M. Maadani**, "Improving Iranian Airport Navigation Scenarios by Using DGPS Techniques," Electronic Industries, Vol. 10, No. 2, Summer 2019 (in Persian. English Abstract). (**ISC**)
- **M. Maadani**, "Reanalyzing a simplified Markov model for the low-density P2P wireless sensor and actuator networks," Telecommunication Systems, Vol. 70, No. 2, Feb. 2019. (**ISI, WoS**)
- **M. Maadani**, S. A. Motamedi, "A Comprehensive DCF Performance Analysis in Noisy Industrial Wireless Networks," International Journal of Communication Systems, Vol. 29, No. 11, Jul. 2016. (**ISI, WoS**)
- M. Parsa, S. A. Motamedi, H. Safdarkhani, **M. Maadani**, "Performance Evaluation of Beacon Enabled IEEE 802.15.4 Network with Downlink and Uplink Traffic and Limited Retransmission," International Journal of Ad Hoc and Ubiquitous Computing, Vol. 18, No. 3, 2015. (**ISI, WoS**)
- **M. Maadani**, S. A. Motamedi, "Contention Window Adjustment in IEEE 802.11-Based Industrial Wireless Networks," International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering, Vol. 9, No. 11, 2015. (Journal version of a conference paper)
- **M. Maadani**, S. A. Motamedi, "A Simple and Comprehensive Saturation Packet Delay Model for Wireless Industrial Networks," Wireless Personal Communications, Vol. 77, No. 1, Jul. 2014. (**ISI, WoS**)
- **M. Maadani**, S. A. Motamedi, H. Safdarkhani, M. Parsa, "Saturated Distributed Coordination Function Markov Model for Noisy Soft-Real-Time

Industrial Wireless Networks”, IET Communications, Vol. 8, No. 10, Jul. 2014. (ISI, WoS)

- **M. Maadani**, S. A. Motamedi, “A Simple and Closed-Form Access Delay Model for Reliable IEEE 802.11-Based Wireless Industrial Networks,” Wireless Personal Communications, Vol. 75, No. 4, Aug. 2014. (ISI, WoS)
- **M. Maadani**, S. A. Motamedi, M. Mohammadi Noshari, “A Reliable Routing Protocol for Wireless Vehicular Networks,” Journal of Intelligent Procedures in Electrical Technology (JIPET), Vol. 3, No. 11, Autumn 2012. (ISC)
- **M. Maadani**, S. A. Motamedi, “EDCA Delay Analysis of Spatial Multiplexing in IEEE 802.11-Based Wireless Sensor and Actuator Networks,” International Journal of Information and Electronics Engineering, Vol. 2, No. 3, May 2012.
- N. Deldadeh Arani, M. N. Moghaddasi, K. Forooraghi, **M. Maadani**, “Introducing a Novel Network Modeling for a Printed Microstrip Slot Element and Parameter Optimization using Genetic Algorithm,” Iranian Journal of Applied Mathematics, Vol. 21, Summer 2009. (ISC)

Conference Papers

- **M. Maadani**, M. Shabro, Z. Alavikia, “Analysis of Demand-side Business Opportunities in Iran, as a Digital Transformation Perspective,” Iranian Conference on Electrical Engineering, Dec 2019.
- M. TajiK, M. Mahdavi, **M. Maadani**, “Image Steganalysis using Improved Statistical features and SVM,” National Conference on Electrical and Mechatronics Engineering, Dec. 2019 (in Persian).
- M. A. Chapari, M. Mahdavi, **M. Maadani**, “Simulation of the Robotic Vision Process to Determine the Quality of the Final Product Manufactured by the Baking Factory,” National Conference on Electrical and Mechatronics Engineering, Dec. 2019 (in Persian).
- M. Alizadeh, **M. Maadani**, M. Zare, “A miniaturized ultra-wide band sinusoidal antenna with circular polarization for S, C, X bands,” 2019 IEEE International Conference on Knowledge-Based Engineering and Innovation (KBEI), Feb. 2019.
- S. Hosseini Nasab, **M. Maadani**, M. Zare, “Designing a ZigBee-based Wireless Gateway in a Smart Home Automation Network”, National Conference of Innovative Research Developments in Electrical and Computer Engineering (NCECE), Feb. 2019 (in Persian).
- M. Karimi, M. Zare, **M. Maadani**, “An Optimized Design of a Tertiary NOT gate using CNTFET”, International Conference on Multidisciplinary Research in Electrical, Computer, Mechatronics and Mechanics Engineering, Sep. 2018 (in Persian).
- M. Karimi, M. Zare, **M. Maadani**, “Optimization of the CNTFET-based Tertiary Edge-Triggered Flip-Flop”, International Conference on Multidisciplinary Research in Electrical, Computer, Mechatronics and Mechanics Engineering, Sep. 2018 (in Persian).
- S. Shakouri, **M. Maadani**, M. Jahanbakht, “Simulation and Travel-Time Reduction of Public Transportation Vehicles using VANET-based Smart Traffic Lights”, National Conference on Simulation Systems, May. 2018 (in Persian).
- T. Salehi, **M. Maadani**, M. Mahdavi, “MDP-based Delay Reduction in V2V Wireless Networks”, International Conference of Novel Studies on Computer and IT, Feb. 2018 (in Persian).
- M. Khoshsima, **M. Maadani**, S. V. Sadatpour Kashani, “Improving the On Demand Multipath Routing Protocol (AOMDV) in Vehicular Ad hoc Networks

(VANETs)", National Conference of Novel Technologies in Electrical and Computer Engineering, Jan. 2018 (in Persian).

- J. Nazari, **M. Maadani**, M. Kazemi, "DDOS Attack Strength Prediction using Simulation", National Conference of Novel Technologies in Electrical and Computer Engineering, Jan. 2018 (in Persian).
- S. M. Jameii, **M. Maadani**, "Intelligent Dynamic Connectivity Control Algorithm for Cluster-based Wireless Sensor Networks," International Conference for Internet Technology and Secured Transactions (ICITST), Dec 2016.
- E. Aslani, M. Jahanbakht, **M. Maadani**, "A UWB Microstrip Antenna, capable of eliminating WLAN and WiMAX bands", National Conference on Nanotechnology, March 2017 (in Persian).
- H. Manouchehrpour, M. Zare, **M. Maadani**, "Designing an OR-Gate using Nano transistors in Footless Domino Logic", National Conference on Nanotechnology, March 2017 (in Persian).
- H. Manouchehrpour, M. Zare, **M. Maadani**, "Designing an OR-Gate using Nano transistors in High-Speed Domino Logic", National Conference on Nanotechnology, March 2017 (in Persian).
- A. Ghasemi, **M. Maadani**, M. Mazinani, "Improving the Dynamic Token-Based MAC Protocol in Vehicular Ad hoc Networks (VANETs)", National Conference on Artificial Intelligence and Fuzzy Systems (AIFS), Sep. 2016 (in Persian).
- **M. Maadani**, S. A. Motamedi, "Contention Window Adjustment in IEEE 802.11-Based Industrial Wireless Networks," 2015 International Conference on Wireless Networks (ICWN 2015), Nov 2015.
- **M. Maadani**, M. Baseri, "Performance evaluation of the OFDM modulation in IEEE 802.11-based wireless industrial networks," IEEE-2015, International Conference on Knowledge-Based Engineering and Innovation (KBEI 2015), Nov 2015.
- M. Zarezadeh, **M. Maadani**, "An Improved RFID Reader Antenna Placement Algorithm for Warehouse Management Applications", International Conference on Electrical Engineering and Computer Science (ICEECS), 2015 (in Persian).
- E. Arianasab, **M. Maadani**, A. Gandomi, "A Neural-Network based gender detection algorithm on full-face photograph," IEEE-2015, International Conference on Knowledge-Based Engineering and Innovation (KBEI 2015), Nov 2015.
- **M. Maadani**, S. A. Motamedi, M. Baseri, "A Simple Switched-MIMO Scheme for Industrial Wireless Local Area Networks," 2014 International Conference on Communications and Network Engineering (ICCNE 2014), Dec 2014.
- M. Keshavarz, S. A. Motamedi, **M. Maadani**, H. Yousefdehi, "Evaluating the First European Smart Grid Standard-Set, based on the SGAM Architectural Model," Smart Grid Conference 2014 (SGC 2014), Dec 2014 (in Persian).
- H. Yousefdehi, S. A. Motamedi, A. Motamedi, J. Rasouli, S. B. Hoseini, **M. Maadani**, "Value Chain Design of the Iran Smart Grid," Smart Grid Conference 2014 (SGC 2014), Dec 2014 (in Persian).
- J. Rasouli, S. A. Motamedi, **M. Maadani**, H. Yousefdehi, "Evaluation of Electrical Industry and Active Occupations, in conjunction with Mapping on the Iran Smart Grid Analytical Ecosystem Model," Smart Grid Conference 2014 (SGC 2014), Dec 2014 (in Persian).
- M. Baseri, S. A. Motamedi, **M. Maadani**, "A Load-Adaptive Beacon Scheduling Algorithm for IEEE 802.15.4 Mesh Topology Improving Throughput and QoS in WMSNs," 5th IEEE International Conference on

Computing, Communication and Networking Technologies (ICCCNT), July 2014.

- **M. Maadani**, S. A. Motamedi, "An Adaptive Retry-Limit Scheme for Real-Time IEEE 802.11 Based Wireless Industrial Networks," 7th IEEE International Conference on Computer Science & Education (ICCSE 2012) July 2012.
- **M. Maadani**, S. A. Motamedi, "EDCA Delay Analysis of Spatial Diversity in IEEE 802.11-Based Real-Time Wireless Sensor and Actuator Networks," IEEE International Symposium on Wireless Communication Systems (ISWCS 2011), Nov 2011.
- **M. Maadani**, S. A. Motamedi, H. Safdarkhani, "Delay-Reliability Trade-off in MIMO-Enabled IEEE 802.11-Based Wireless Sensor and Actuator Networks," Elsevier Workshop on Emerging Technologies in Sensor Networks (EmSeNs 2011), Sep 2011.
- M. Soltani, S. A. Motamedi, S. Ahmadi, **M. Maadani**, "Power-Aware and Void-Avoidant Routing Protocol for Reliable Industrial Wireless Sensor Networks," IEEE International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2011), Sep 2011.
- **M. Maadani**, S. A. Motamedi, H. Safdarkhani, "An Adaptive Rate and Coding Scheme for MIMO-Enabled IEEE 802.11-Based Soft-Real-Time Wireless Sensor and Actuator Networks," IEEE International Conference on Computer Research and Development (ICCRD 2011), March 2011.
- **M. Maadani**, S. A. Motamedi, M. Soltani, "Delay Analysis of MIMO-Enabled IEEE 802.11-Based Soft-Real-Time Wireless Sensor and Actuator Networks," International Conference on Intelligent Information Networks (ICIIN 2011), March 2011.
- **M. Maadani**, S. A. Motamedi, M. Khayeri Dastgerdi, "A Cross-Layer Adaptive Space-Time Coding Scheme for IEEE 802.11-Based Soft-Real-Time Wireless Industrial Networks," IEEE International Symposium on Computer Networks and Distributed Systems (CNDIS 2011), February 2011.
- **M. Maadani**, S. A. Motamedi, M. Mohammadi Noshari, "Delay Analysis and Improvement of IEEE 802.11e-Based Soft-Real-Time Wireless Industrial Networks using an Open-Loop Spatial Multiplexing Scheme," IEEE International Symposium on Computer Networks and Distributed Systems (CNDIS 2011), February 2011.
- **M. Maadani**, "Wireless Sensor Networks, an Overview," Iranian National Conference on Electrical Engineering (NEEC 2008), March 2008 (in Persian).
- **M. Maadani**, M. Atarodi, "A Low-Area, 0.18 μ m CMOS, 10Gb/s Optical Receiver Analog Front End," IEEE International Symposium on Circuits and Systems (ISCAS 2007), May 2007.

**Journal/ Conference
Executive Activities**

Executive Roles:

- **Executive Secretary**
 - **Iran Smart Cup (ISC 2017):** an Innovation and Entrepreneurship Festival in the field of Smart Products and Services
- **Conference Program Chair**
 - **IEEE-2015, KBEI, Electrical Engineering**
- **Conference Scientific Committee Member**
 - **NCECE2019**

Journal Reviewer:

- **Proceedings of the IEEE**, IEEE, USA (IF: 9.107)
- **Wireless Networks**, Springer, Netherlands (IF: 1.981)
- **Wireless Personal Communications**, Springer, Netherlands (IF: 1.2)
- **Telecommunication Systems**, Springer, Netherlands (IF: 1.527)
- **Transactions on Emerging Telecommunications Technologies**, Wiley, USA (IF: 1.61)
- **International Journal of Engineering**, MERC, Iran (IF:1.098)
- **Ad Hoc & Sensor Wireless Networks**, OCP Science, USA (IF: 0.478)
- **PLOS ONE**, PLOS, USA (IF: 2.766)
- **IET Networks**, IET, UK (IF: 0.369)

Conferences Reviewer:

- **ICEED 2010, ICEED 2011, ICEED 2012, SCORed 2012, ISBEIA 2012, ICEED 2013, BEIAC 2013, ISBEIA 2013, SHUSER 2013, ICEESE 2013, ICEED 2014, CHUSER 2014, ISBEIA 2014, ICoSSEET 2014, ISRADH 2014, CITEF 2014, ICOST 2014, IEEE SPICES 2015, ICCME-2015, ICOED 2015, AR4MET 2015, ICCME 2015, PIAMSE 2015, ISySM 2015, RAIEIC 2015, ICEMIT 2015, ICEED 2015, ICOED 2016, ICTLE 2016, APPEMSE 2016**

Research Projects

- **M. Maadani**, "A Markov Chain Model for IEEE802.11-based Wireless Industrial Networks with Periodic Data," Islamic Azad University, Shahr-e-Qods Branch, fall 2017.
- **M. Maadani**, "Performance Evaluation of the OFDM Modulation in IEEE 802.11-Based Wireless Industrial Networks," Islamic Azad University, Shahr-e-Qods Branch, fall 2015.
- **M. Maadani**, "Improving Distributed Coordination Function (DCF) Modeling in IEEE 802.11-based Wireless Networks," Islamic Azad University, Shahr-e-Qods Branch, spring 2014.
- **M. Maadani**, "Improving Routing Reliability in Wireless Vehicular Networks," Islamic Azad University, Shahr-e-Qods Branch, spring 2013.
- **M. Maadani**, "Enhanced Distributed Channel Access (EDCA) Delay Modeling in MIMO-Enabled IEEE 802.11-based Wireless Local Area Networks," Islamic Azad University, Shahr-e-Qods Branch, winter 2012.
- **M. Maadani**, "IEEE 802.11 based Wireless Local Area Network (WLAN) Enhancement Using Adaptive Space-Time Coding, for Real-Time Applications," Islamic Azad University, Shahr-e-Qods Branch, fall 2010.

Major Interests

- Internet of Things
- Vehicular Ad Hoc Networks (VANET)
- Wireless Local Area Networks (WLAN) and Wireless Personal Area Networks (WPAN)
- Wireless Sensor Networks (WSN)
- Physical and Medium Access Control (MAC) layers of wireless networks
- Adaptive/ Cross-layer Quality of Service (QoS) provisioning schemes

- Smart Grid Communications and Networking
- Wireless/Wired Industrial Networks (Wireless Fieldbus)
- Electronic Instrumentation, Circuit and System Design

Professional Memberships

Jan 2010 – Dec 2017: **IEEE (Institute of Electrical and Electronics Engineers), USA**

- Member; No: 90711689

Jul 1999 - Dec 1999:

- Student Member
- EMBS (Engineering in Medicine and Biology Society) Member

Jul 2015 - Present

EAI (European Alliance for Innovation), Belgium

- Member

Mar 2011 - Present:

IACSIT (International Association of Computer Science and Information Technology), China

- Member; No: 80340387

Oct 2008 - Sep 2010:

Young Researchers Club, Tehran, Iran

- Member

Professional Certificates

Jul 2015:

Cando (Cybertech), Tehran, Iran

- CISCO CCNA (Cisco Certified Network Associate)
- CompTIA Network+

Apr 2015:

Islamic Azad University (IAU), Tehran, Iran

- Business Plan (BP) and Assessment of Knowledge-based Investment Projects
- Evolutionary Management in Organizations

Jun 2016:

Jun 2014:

Control Negar, Tehran, Iran

- zenOn HMI / SCADA Software (preliminary)

Jun 2008:

Special Skills

Hardware:

- **ARM** Microcontrollers: Keil uVision
- Atmel **AVR** Microcontrollers: BasCom, CodeVision, Assembly
- **8051** Microcontrollers Family
- Familiar with **Intel** x86 Assembly Language

- **CISCO** Switches & Routers
- Familiar with Wireless Network and Internet of Things (IoT) Protocols
- Familiar with Industrial Network Protocols (PROFIBUS, Foundation Fieldbus, HART)
- Familiar with Controller Area Network (CAN)
- Expert in Microcontroller-Based Circuit and System Implementation
- Familiar with PC (Operating Systems, Hardware Assembly, Trouble- Shooting)

Software:

- Network Simulator: OPNET Modeler, OMNET++, GloMoSim
- Analysis Software: MATLAB
- Digital Circuit Simulator: Proteus
- Printed Circuit (PCB) Design: Altium Designer
- Analog Circuit Simulator: PSpice, ORCAD, HSpice
- Digital Circuit Simulator: Acquainted with Modelsim, Max Plus II (Trident FPGA Programming Software), Quartus.
- Programming Languages: C++, Python, Acquainted with Visual C#, Acquainted with VHDL (Digital Hardware Description Language).

English Skills

July 2008:

IDP IELTS Australia

IELTS (International English Language Testing System)

Score: 6.5

Nov 2004:

ETS (Educational Testing Service), USA

TOEFL (Test Of English as a Foreign Language)

Score: 613

Oct 2002:

Kish Language Institute, Tehran, Iran

FCE (First Certificate of English) Diploma

References

- Available Upon Request.