

Assistant Professor

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% LINKS

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ResearchGate Profile

Publons Profile

Mathworks Community Profile

A Acedemia Profile

EDUCATION

2016 Ph.D. (P.Eng.) Degree



Science & Research branch (SRBIAU), Islamic Azad University

Field/Major Computer Software Systems Engineering

Dissertation "Game Theory Approach to Resource Allocation in Peer to Peer Video Streaming"

& Supervisor Dr. Mehdi Dehghan Takht Fooladi

🚰 Advisors Dr. Hamidreza Navidi and Dr. Amir Masoud Rahmani

★ GPA 19.08 of 20

2010 M.Sc. (M.Eng.) Degree



Iran University of Science and Technology (IUST)

Field/Major Information Technology Engineering - Secure Communications

■ Thesis "A Scalable IP Lookup Scheme in Internet Routers"

▲ Supervisor Dr. Reza Berangi

★ GPA 16.03 of 20

B.Sc. (B.Eng.) Degree



Iran University of Science and Technology (IUST)

Field/Major Computer Software Engineering

■ Thesis "Blur Identification in Linear Motion-Blurred Images using Artificial Neural Networks"

& Supervisor Dr. Mohsen Ebrahimi Moghaddam

★ GPA 16.72 of 20

* AWARDS

2010

May 2002 1^{th} place in the field of programming - Second National Skills Olympiad (Provincial stage)

June 2002 4^{th} place in the field of programming - Second National Skills Olympiad (National stage)

May 2004 2^{th} place - ACM trial competition (North Region of Iran)

EXPERIENCE

1/2011 - Present			Islamic Azad University
			Gorgan branch
8/2015 - 5/2016	Director of Information and Communication Techno	logy office	Islamic Azad University Gorgan branch
9/2014 - 9/2015	Mathematics Teacher		Soroush High School
7/2011 - 1/2013	Director of Information and Communication Techno	logy office	Islamic Azad University Gorgan branch
3/2009 - 7/2011	Head of Computer Engineering Department	SAMA Technical and Vo	cational Training College Gorgan branch
7/2008 - 12/2008	Vice-President for Research and Technology		Science and Technology gan Khane Kargar branch
7/2008 - 12/2008	Head of Industry Department		Science and Technology gan Khane Kargar branch
7/2005 – 3/2007	Programmer and Project Manager	SATER Computer Systems	s Development Company
6/2003 - 9/2003	Programmer	Booria CAD), CAM Systems Company

ℱ SKILLS

- \cdot Scientific Tools and Simulators
 - MATLAB
 - OMNet++ (Discrete Event Simulator)
 - CLIPS (A Tool for Building Expert Systems)
- Programming and Scripting Languages
 - **-** C/C++
 - Java
 - Python
 - Delphi
 - HTML
 - CSS
 - JavaScript
 - SQL
- Documentation
 - Microsoft Office
 - LATEX
- · Computer Networks
 - MTCNA (Certificate Number: 1512NA428)



☆ INDUSTRIAL PROJECTS

- Setting up a video conferencing server based on Jitsi meet for the Golestan region of Iran Telecommunication company
- Designing and implementing a WiFi push notification system based on Raspberry Pi for the Golestan province ADSL subscribers of the Iran Telecommunication company
- · Project manager in design and Implementing the Wireless Infrastructure of Gorgan Islamic Azad University
- · Member of the Steering Committee in the Islamic Azad University BPMS Project
- · Senior programmer in Diet software project, which is a medical application
- · Senior programmer in Skin Care software project, which is a medical application
- Senior programmer in Sabt Sherkat software project, which is a legal and automation application for Africa holding Corporation.
- · Senior programmer in Iran Termeh software project, which is a textile application
- · Senior programmer in Carpet Weaving software project, which is a textile application

<u>m</u> TEACHING

I have offered a couple of computer science and engineering courses from Fall 2006 in many colleges and universities in Iran, which some of them are listed below:

UNDERGRADUATE COURSES

- Computer Networks
- Web Design and Development
- Data Structures and Algorithms
- Design and Analysis Algorithms

GRADUATE COURSES

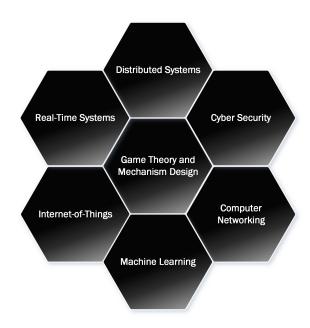
- Game Theory
- Advanced Computer Networks
- Real-Time Embedded Systems



Some of my video lectures can be visited at https://www.aparat.com/MahiniAcademy.

Q RESEARCH INTERESTS

- · Game Theory and Mechanism Design
- · Computer Networking
 - Multimedia Networks
 - High-Speed Networks
- · Distributed Systems
 - Cloud Computing
 - Fog Computing
 - Edge Computing
- · Cyber Security
 - Intrusion Detection and Prevention Systems
- · Real-Time Systems
- · Internet-of-Things (IoT)
- · Machine Learning



★ RESEARCH PROJECTS (SCIENTIFIC GRANTS)

2013-2014 Design a Wireless Intrusion Detection and Prevention System against the Man-In-The-Middle

Attack SAMA Technical and Vocational Training College

Gorgan branch

The leader of the project

2011-2012 Design and Implementation of SAMA Schools Web Site

SAMA Technical and Vocational Training College

Gorgan branch

The leader of the project

PH.D. STUDENTS

2016-Present	Mehrdad Asadi	Ph.D. (P.Eng.) candidate in Computer Software Systems
L010 1 103011	Michigaa Asaai	rn.b. (r.Liig.) candidate in computer software systems

- · Co-Supervised with Prof. Mahmoud Fathy
- · Fog/Cloud computing based safe driving assistant model in Intelligent Transportation Systems

2016-Present Yousef Ostadi

Ph.D. (P.Eng.) candidate in Computer Software Systems

· Game theory approach to caching mechanism in mobile edge computing

2017-Present Fatemeh Babaei

Ph.D. candidate in Applied Mathematics

- · Co-Supervised with Prof. Hamidreza Navidi
- · Cost and resource allocation in bankruptcy problem

2017-Present Ali Jannati Ataei

Ph.D. (P.Eng.) candidate in Computer Software Systems

• Resource management in fog/cloud based Internet-of-Healthcare-Things (IoHT)

M.SC. STUDENTS

2020-Present Aref Aberi M.Sc. (M.Eng.) student in Computer Software Engineering

• A cooperative apporach to cache placment in cloud/fog computing

2020-Present Mohammad Hossein Nemati Ghazvini M.Sc. (M.Eng.) student in Computer Software Engineering

· A game theory approach to proactive cache placement in cloud/fog computing

2018-Present Mobin Taneh M.Sc. (M.Eng.) student in Computer Software Engineering

• Design and implementation of an adaptive video conferencing system based on WebRTC

2015-2019 Mobin Koosha Graduated with M.Sc. (M.Eng.) in Computer Software Engineering

• Resource allocation in real-time fog computing-based IoT services

2015-2020 Seyyed Mohammad Javad Mirkatooli Graduated with M.Sc. (M.Eng.) in Computer Software Engineering

· Virtual-Machine trading in a cloud federation to maximize cloud providers' profits

2014-2018	Azar Ghamangiz	Graduated with M.Sc. (M.Eng.) in Computer Software Engineering		
	• Dealing with RPL attacks in the Intern	et-of-Things based on 6LoWPAN		
2016-2018	Hamed Molaeinejad	Graduated with M.Sc. (M.Eng.) in Computer Software Engineering		
	Trigger strategy approach to resource	e allocation in Peer-to-Peer systems		
2016-2018	Mahboubeh Aghili	Graduated with M.Sc. (M.Eng.) in Computer Software Engineering		
	Smart data pricing in a cloud federation			
2016-2018	Rouhollah Lolaei	Graduated with M.Sc. (M.Eng.) in Computer Software Engineering		
	Byzantine fault tolerable clock synchr	ronization in the real-time distributed systems against		
2015-2018	Mina Shahini	Graduated with M.Sc. (M.Eng.) in Computer Software Engineering		
	Resource allocation in fog computing	Resource allocation in fog computing based Internet-of-Things		
2015-2018	Esmaeil Gorzin	Graduated with M.Sc. (M.Eng.) in Computer Software Engineering		
	• Resource allocation in an adaptive P2	2P video streaming based on HetNets		
2014-2017	Effat Khorraminia	Graduated with M.Sc. (M.Eng.) in Computer Software Engineering		
	Game theory approach to incentive in	Game theory approach to incentive mechanism in the peer-to-peer video streaming overlay		

PUBLICATIONS

JOURNALS

network

- 1. Hamidreza Mahini, Amir Masoud Rahmani, and Seyyedeh Mobarakeh Mousavirad. An evolutionary game approach to iot task offloading in fog-cloud computing. *The Journal of Supercomputing*, pages 1–28, 2020a
- 2. **Hamidreza Mahini** and Seyyedeh Mobarakeh Mousavirad. Wifi intrusion detection and prevention systems analyzing: A game theoretical perspective. *International Journal of Wireless Information Networks*, 27(1):77–88, 2020
- 3. **Hamidreza Mahini**, Reza Hajisheykhi, and Mina Shahini. Qos and traffic aware greedy resource allocation in foggy internet of things. *International Journal of Communication Networks and Distributed Systems*, 25(1): 95–121, 2020b
- 4. **Hamidreza Mahini**, Mehdi Dehghan, Hamidreza Navidi, and Amir Masoud Rahmani. Game theory approach to peer-to-peer video streaming: a comprehensive survey. *International Journal of Autonomous and Adaptive Communications Systems*, 11(4):333–364, 2018
- Hamidreza Mahini, Mehdi Dehghan, Hamidreza Navidi, and Amir Masoud Rahmani. Peer-assisted video streaming based on network coding and beer-quiche game. AEU-International Journal of Electronics and Communications, 73:34–45, 2017
- 6. **Hamidreza Mahini**, Mehdi Dehghan, Hamidreza Navidi, and Amir Masoud Rahmani. Game-plive: a new game theoretic mechanism for p2p live video streaming. *International Journal of Communication Systems*, 29(6): 1187–1203, 2016
- 7. S Mobarakeh Moosavirad, Peyman Kabiri, and **Hamidreza Mahini**. Rashnu: a wi-fi intrusion response scheme. *Security and Communication Networks*, 8(12):2070–2078, 2015
- 8. S Mobarakeh Moosavirad, Peyman Kabiri, and **Hamidreza Mahini**. Rssat: A wireless intrusion detection system based on received signal strength acceptance test. *Journal of Advances in Computer Research*, 4(1): 65–80, 2013
- 9. **Hamidreza Mahini** and Reza Berangi. Eastfile: An energy aware, scalable, and tcam based fast ip lookup engine. *International Journal of Computer Networks & Communications*, 4(5):35–55, 2012

- Hamidreza Mahini, Reza Berangi, and Alireza Mahini. Mlet: a power efficient approach for tcam based, ip lookup engines in internet routers. *International Journal of Computer Networks and Communications*, 2(3): 13–26, 2010
- 11. **Hamidreza Mahini**, Alireza Mahini, and Javad Ghofrani. Xdanng: Xml based distributed artificial neural network with globus toolkit. *International Journal of Computer Science and InformationSecurity*, 2(1), 2009

INTERNATIONAL CONFERENCES

- 1. Alireza Mahini, Reza Berangi, **Hamidreza Mahini**, and Hossein Mohtashami. Scalable, low power and storage efficient parallel lookup engine architecture for ip packets. In *2008 15th International Conference on Mixed Design of Integrated Circuits and Systems*, pages 611–617. IEEE, 2008a
- 2. Alireza Mahini, Reza Berangi, Hossein Mohtashami, and **Hamidreza Mahini**. Low power and storage efficient parallel lookup engine architecture for ip packets. In *Computer Society of Iran Computer Conference*, pages 718–722. Springer, 2008b
- 3. Alireza Mahini, Reza Berangi, Seyedeh Fatemeh, Khatami Firouzabadi, and **Hamidreza Mahini**. Low power tcam forwarding engine for ip packets. In *MILCOM 2007-IEEE Military Communications Conference*, pages 1–7. IEEE, 2007
- Mohsen Ebrahimi Moghaddam, Mansour Jamzad, and Hamidreza Mahini. Motion blur identification in noisy images using feed-forward back propagation neural network. In *International Workshop on Intelligent Com*puting in Pattern Analysis and Synthesis, pages 369–376. Springer, 2006
- · Also, dozens of papers in the national conferences in Persian in the form of oral presentations and posters

☑ REVIEWER

I have been a reviewer in some prominent journals. Some of them are listed below:

- The Journal of Supercomputing
- Multimedia Systems
- IEEE Transactions on Circuits and Systems for Video Technology
- International Journal of Electrical and Computer Engineering (IJECE)
- Security and Communication Networks
- · Journal of Advanced Mathematical Modeling

The verification of the claim can be found in my Publons profile.

▲ MEMBERSHIP IN SCIENTIFIC SOCIETIES



A LANGUAGES

- · Persian Native Language
- English Speak fluently and read/write with high proficiency