Curriculum Vitae until Dec. 2023

First Name: **Akbar**

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Date of Birth & BirthPlace: **2 May 1969, Tabriz, Iran**

Professor of Computer at Sahand University of Technology, Sahand New Town, Tabriz, Iran.

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Language Skills

Azeri(native), Farsi(excellent), English(good)

Education

Sep.2002-Oct.2006: **Ph.D.**, Computer Science, University of Ottawa, Ottawa, Canada, Nominated for the best thesis award.

Sep.1992-Jul.1995: **M. Sc.**, Computer Architecture Engineering, Iran University of Science & Technology, GPA: 17.26 (out of 20), Rank 1 (out of 6).

Sep.1987-Feb.1992: **B.Sc.**, Computer Hardware Engineering, Iran University of Science & Technology, Tehran, Iran, GPA: 16.59 (out of 20), Rank 1 (out of 40).

Sep.1983-Jun.1987: **Diploma**, Math and Physics, Dehkhoda high school, Tabriz, Iran, GPA:18.3(out of 20), Rank 1(out of 35).

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Research Interests

Optical networks, Scheduling, IPTV, VANET, Traffic management in high speed networks, Network modeling, Analysis and performance evaluation.

Published Books:

[2] **Akbar Ghaffarpour Rahbar**, Quality of Service in Optical Packet Switched Networks, Accepted for publication by **Wiley-IEEE Press**, April 2015, ISBN: 978-1-118-89118-6. (http://eu.wiley.com/WileyCDA/WileyTitle/productCd-111889118X.html)

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Published Book Chapters:

[7] Sajjad Zare, Seyyed Mohammad Hosseini Verki and **Akbar Ghaffarpour Rahbar**, "Channel Zapping Time in IPTV: Challenges and Solutions", Book Chapter in Book "IPTV Delivery Networks: Next Generation Architectures for Live and Video-on-Demand Services," Editor: Dr. Al-Sakib Khan Pathan, John Wiley & Sons, June 2018.

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[84]   Sarah Sarraf-Maralaniyan and **Akbar Ghaffarpour Rahbar**, "MT3A: A Novel Multicast Routing, Spectrum and Modulation-Level Assignment in Elastic Optical Networks," ***Computer Networks***.

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[51]   Amin Ebrahimzadeh, **Akbar Ghaffarpour Rahbar**, and Behrooz Alizadeh, "**Dynamic Impairment-Aware Provisioning based on Quadratic Model in All Optical Networks**," *Proc. 23rd Iranian Conference on Electrical Engineering (ICEE2015*), Tehran, Iran, May 2015.

[50]   Ali Athari and Akbar Ghaffarpour Rahbar, "**Supporting favorite channels on a combined DVB-H and 3G network in Mobile IPTV**," *Proceedings Second Computer Science Conference on Computer and Information Technology (CSCCIT 2014),* Tabriz University, Tabriz, Iran, Nov.2014.

[49]   Azadeh Faroughi and Akbar Ghaffarpour Rahbar, "**A New MAC Protocol for Slotted Light-Trail Optical Networks**", *Seventh International Symposium on Telecommunications (IST 2014),* Tehran, Iran, Sep.2014.

[48]   Amin Ebrahimzadeh and Akbar Ghaffarpour Rahbar, "**Online Light-Path Establishment Solution based on Binary Quadratic Model for All Optical Networks**," *Seventh International Symposium on Telecommunications (IST 2014*), Tehran, Iran, Sep.2014.

[47]   Amin Ebrahimzadeh, Akbar Ghaffarpour Rahbar, and Behrooz Alizadeh, " **Routing and Wavelength Assignment Algorithm Using Binary Quadratic Model**," *Proc. International Conference on Electronics, Computers and Computation (ICECCO 2013),* Ankara, Turkey, Nov.2013, pp.95-98.

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[45] Kian Abdollahi and Akbar Ghaffarpour Rahbar, "**A New Bandwidth Allocation for IPTV Services over EPON,**" *Sixth International Symposium on Telecommunications (IST 2012)*, Tehran, Iran, Nov. 2012.

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[43] Ali Athari and Akbar Ghaffarpour Rahbar, "**Intelligent Fast Channel Switching in Mobile IPTV based on User Behaviors,**" *Proc. 20th Iranian Conf. on Electrical Engineering (ICEE 2012)*, Tehran, Iran, May 2012. (Persian)

[42] Elham khalili Amlashi and Akbar Ghaffarpour Rahbar, "**Comparison of Second and Fourth Generation Mobile Networks in Network Layer for Communications Infrastructure of Iran**", *Second IRAN Mobile VAS Conference* , IRIB International Conference Center, Tehran, Iran, Mar.2012. (Persian)

[41] Ali Athari and Akbar Ghaffarpour Rahbar, "**A Novel Idea on Supporting Mobile IPTV over Mixed DVB-H and 3G Networks**", *Proc. Extending Industrial Applications of information, communications and Computations (EIA-ICC) Conference*, Tarbiat Moallem Azarbaijan University, Tabriz, Iran, Feb. 2012.(Persian)

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[38] Hamed Shahbazifard and Akbar Ghaffarpour Rahbar, "**A New Method for Soft Handoff in Mobile IPTV,**" *First CSUT Conference on Computer, Communication and Information Technologies*, Tabriz, Iran, Nov. 2011.

[37] Sepideh Nikmanzar and Akbar Ghaffarpour Rahbar, "**The Effect of Mobility in IPTV Traffic in Wireless Mesh Home Networks,**" *First CSUT Conference on Computer, Communication and Information Technologies,* Tabriz, Iran, Nov. 2011.

[36] Ali Razmkhah and Akbar Ghaffarpour Rahbar**, "NFS: A New DBA to Alleviate Channel Idle Time in Heterogeneous WDM-EPONs**", *Proc. IEEE 5th International Symposium on Telecommunications* (IST2010), Tehran, Iran, Dec.2010, pp.138-142.

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[33] Mustafa Vahabzadeh Dolama and **Akbar Ghaffarpour Rahbar**, " Multi Group Dynamic Bandwidth Allocation Scheme in Long Reach PONs", *Proc. IEEE 5th International Symposium on Telecommunications (IST2010)*, Tehran, Dec.2010, pp.163-168.

[32] Mustafa Vahabzadeh Dolama and **Akbar Ghaffarpour Rahbar**, "Performance Evaluation of the Number of Database Accesses in Cellular Networks," *Proc. The Second International Conference on Wireless & Mobile Networks (WiMo-2010)*, Ankara, Turkey, June 2010, pp.46-58.

[31] Hussein Soleymani and **Akbar Ghaffar Pour Rahbar**, "Vehicle Identification in Sensor Networks using SVM Classifier", 15th Annual Conference of Iran Computer Society, Tehran, Iran, Feb. 2010.

[30] Amir Kakekhani and **Akbar Ghaffar Pour Rahbar**, "A Novel QoT-Aware Routing and Wavelength Assignment Algorithm in All-Optical Networks," *Proc. IEEE International CSI Computer Conference (CSICC 2009)*, Tehran, Iran, Oct. 2009, pp. 446-451.

[29] Hamed Ranjzad and **Akbar Ghaffar Pour Rahbar**,"A New Analytical Model and Protocol for Mobile Ad-Hoc Networks Based on Time Varying Behavior of Nodes," ***Proc. Third International Conference on Information Security and Assurance (ISA 2009)***, Seoul, Korea, June 2009, pp.57-67.

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[27] Saeed Kamel and **Akbar Ghaffar Pour Rahbar**, "Heuristic Surveillance of Targets in Sensor Networks ", ***Proc. IEEE 5th International Symposium on High Capacity Optical Networks and Enabling Technologies (HONET08)***, Penang, Malaysia, Nov. 2008, pp.46-51.

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[23] **Akbar Ghaffar Pour Rahbar** and Oliver W. W. Yang, "Even Slot-Transmission in Slotted OPS Networks," ***Proc. IEEE International Conference on Communications (ICC) 2008***, Beijing, China, May 2008, pp.391-395.

[22] Amir Kakekhani and **Akbar Ghaffar Pour Rahbar**, "Wireless Networks in Intelligent Transportation Systems", ***First Seminar on Telecommunication Protocols and Standards***, East Azarbaijan *Telecommunication Center,* Tabriz, Iran, Mar.2008.

[21] Fatemeh Hourali and **Akbar Ghaffar Pour Rahbar**, "RFID and Wireless Sensor Networks", ***First Seminar on Telecommunication Protocols and Standards***, East Azarbaijan *Telecommunication Center,* Tabriz, Iran, Mar.2008.

[20] Nasibeh Alijanpour Shalmany, **Akbar Ghaffar Pour Rahbar**, "On the Choice of All-Optical Switches for Optical Networking," ***Proc. IEEE 4th International Symposium on High Capacity Optical Networks and Enabling Technologies (HONET07)***, UAE, Dubai, Nov.2007.

[19] **Akbar Ghaffar Pour Rahbar**, "An Approach to Improve TCP Throughput of Long-hop Connections in Bufferless OPS Networks," ***Proc. IEEE 4th International Symposium on High Capacity Optical Networks and Enabling Technologies (HONET07)***, UAE, Dubai, Nov.2007.

[18] **Akbar Ghaffar Pour Rahbar**, "Collision Reduction Schemes for Class-based Traffic in OPS Networks," ***Proc. IEEE 4th International Symposium on High Capacity Optical Networks and Enabling Technologies (HONET07)***, UAE, Dubai, Nov.2007.

[17] Choudhury Al Sayeed, Dewan Ahmed, and **Akbar Ghaffar Pour Rahbar**, "Hybrid Maximal Matching for Input Buffered Crossbar Switches," ***Proc. IEEE Communication Networks and Services Research (CNSR 2007)***, Fredericton, New Brunswick, Canada, May 2007, pp. 397-403.

[16] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Integrated TDM in Single-Hop Slotted All-Optical OPS Networks," ***Proc. IEEE International Conference on Advanced Information Networking and Applications***, Niagara Falls, Ontario, Canada, May 2007, pp.777-783.

[15] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "A New Bandwidth Access Framework in Slotted-OPS Networks," ***Proc. IEEE Conference on Local Computer Networks (LCN)***, Tampa, Florida, USA, Nov.2006, pp.559-560.

[14] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Retransmission in Slotted Optical Networks," ***Proc. IEEE High Performance Switching and Routing (HPSR)***, Poznan, Poland, June 2006, pp.21-26.

[13] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Reducing Loss Rate in Slotted Optical Networks: A Lower Bound Analysis," ***Proc. IEEE International Conference on Communications (ICC)***, Istanbul, Turkey, Jun. 2006, pp. 2770 - 2775.

[12] **Akbar Ghaffar Pour Rahbar**, Mushi Jin, Choudhury A. Al Sayeed, and Oliver Yang, "APOSN performance under the MAN and WAN environments" ***Proc. IEEE Canadian Conf. on Electrical and Computer Engineering* (*CCECE 2006*),** Ottawa, Canada, May 2006, pp.1211-1214.

[11] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Loan-Grant based Round Robin Scheduling," ***Proc. IEEE Communication Networks and Services Research Conference* (*CNSR 2006*)***,* Moncton, New Brunswick, Canada, May 2006, pp.204 - 212.

[10] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Contention Avoidance By Composite Slot Assembling," ***Proc. IEEE/OSA Optical Fiber Communication* (*OFC*) *2006***, Anaheim, CA, USA, Mar. 2006.

[9] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "The Output-Controlled Round Robin Scheduling in Differentiated Services Edge Switches," ***Proc. IEEE BROADNETS 2005***, Boston, USA, Oct. 2005, pp.237-245.

[8] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Contention Avoidance in Slotted Optical Networks," ***Proc. International conference on Optical Communication Systems and Networks, SPIE Photonics North***, vol.5970, Toronto, Canada, Sep.2005.

[7] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "An Integrated TDM Architecture for AAPN Networks," ***Proc. International conference on Optical Communication Systems and Networks, SPIE Photonics North***, vol.5970, Toronto, Canada, Sep. 2005.

[6] Mushi Jin, Oliver Yang, Yiming Zhang, **Akbar Ghaffar Pour Rahbar,** and W.Yang, "Applying Time-Division-Multiplexing in Star-Based Optical Networks," ***Proc. IEEE Canadian Conf. on Electrical and Computer Engineering* (*CCECE 2005*),** Saskatoon, Saskatchewan Canada, May 2005.

[5] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Slot Contention Resolution for Distributed TDM Scheduling in an Optical Star Network," ***Proc. IEEE Canadian Conf. on Electrical and Computer Engineering* (*CCECE 2005*),** Saskatoon, Saskatchewan Canada, May 2005, pp.286-289.

[4] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Modeling and Simulation of Fuzzy Based Jitter Management for Voice Communications", ***OPNETWORKS-2004***, Washington, USA, Aug. 2004.

[3] **Akbar Ghaffar Pour Rahbar**, Oliver Yang and Frank Zhang, "Performance Evaluation of a Fuzzy Based Jitter Management Algorithm," ***Proc. IEEE Canadian Conf. on Electrical and Computer Engineering* (*CCECE 2004*),** Niagara Falls, Canada, May 2004.

[2] **Akbar Ghaffar Pour Rahbar**, "A Method to Detect the Existence of a Point in an Enclosed Region of an Image", ***Proc. the First Iranian Conf. on Machine Vision & Image Processing,*** Birjand, Iran, Mar.2001, pp.123-129.

[1] **Akbar Ghaffar Pour Rahbar**, M.R.Jahed, and M.Fathi , "Heart Arrhythmia Detection using Fuzzy logic", ***Proc. 3rd Iranian Conference on Electrical Engineering***, Tehran, Iran, 1995.

Non-Referred Publications (Posters, Technical Reports, Presentations, etc.)

[12] **Akbar Ghaffarpour Rahbar**, Invited Talk, "Contention Avoidance Schemes in Optical Packet Switched Networks", ***The second Asian Symposium on Electromagnetics and Photonics Engineering***, August 28-30, 2013, Tabriz, Iran.

[11] Hussein Soleymani and **Akbar Ghaffar Pour Rahbar**, "Vehicle Identification in Sensor Networks," Artificial Intelligence & Instrumentation Magazine, vol.5, no.3, Aug.2011, pp.46-48. (Persian)

[10] **Akbar Ghaffar Pour Rahbar**, "IPTV", invited talk, *3rd Seminar on Information Age*, Tabriz University, Tabriz, Iran, Nov. 2011.

[9] **Akbar Ghaffar Pour Rahbar**, Documentation of "Bandwidth Access in Slotted OPS Networks Considering Quality of Service", Research Project Technical Report, Department of Electrical Eng., Sahand Univ. of Tech, Iran, May 2010.

[8] **Akbar Ghaffar Pour Rahbar**, Documentation of "Design of Optimum Routing Algorithm for WDM Network", Research Project Technical Report, Department of Electrical Eng., Sahand Univ. of Tech, Iran, Feb. 2010.

[7] **Akbar Ghaffar Pour Rahbar**, Documentation of "Design of New Techniques for Contention Avoidance in

Optical Packet Switched (OPS) Networks", Research Project Technical Report, Department of Electrical Eng., Sahand Univ. of Tech, Iran, Aug.2008.

[6] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Ingress Switch Architectures in Slotted AAPN Network," poster in *AAPN Annual Research Review conference*, Ottawa, Canada, June 2006.

[5] Mushi Jin, **Akbar Ghaffar Pour Rahbar**, and Oliver Yang, "Comparison Analysis of Two Scheduling Schemes in AAPN Networks," poster in *AAPN Annual Research Review conference*, Ottawa, Canada, June 2006.

[4] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "Distributed TDM vs. Centralized TDM Scheduling Algorithms," poster in 2005 *AAPN Annual Research Review (ARR) conference*, Ottawa, Canada, June 2005.

[3] **Akbar Ghaffar Pour Rahbar** and Oliver Yang, "How Important is Scheduling in a Single-Hop Optical Network," *2nd Workshop on Optimization of Optical Networks (OON* 2005*),* Montreal, Canada, Apr. 2005.

[2] **A.Ghaffar Pour Rahbar** and A.Choobdar, "**Flood Forecasting**", *research project* , Department of Electrical Engineering, Sahand University of Technology, 1999.

[1] **Akbar Ghaffar Pour Rahbar, "**Computer-Controlled Robots", *Technical report*, Iran University of Science & Technology, 1994.

Research Theses

[3] Akbar Ghaffar Pour Rahbar, ***Bandwidth Management in Slotted All-Optical Packet-Switched Networks under the DiffServ Domain***, PhD dissertation, University of Ottawa, Ottawa, Canada, Nov.2006, Nominated for thesis award.

[2] Akbar Ghaffar Pour Rahbar, ***Heart arrhythmia detection using Fuzzy Logic***, M.Sc. Thesis, Iran University of Science & Technology, Tehran, Iran, Jun 1995.

[1] Akbar Ghaffar Pour Rahbar, ***Design and implementation of a X-Y recorder,*** B.Sc. Thesis, Iran University of Science & Technology, Tehran, Iran, March 1992.

Academic Activities

Faculty member at Sahand university of Technology:

Nov.1995 to Sep.2002: **Lecturer,** Dept. of Electrical Eng., Sahand University of Technology, Tabriz, Iran

Oct.2006 to Sep. 2010: **Assistant Professor,** Dept. of Electrical Eng., Sahand Univ. of Technology, Tabriz, Iran

Sep.2010 to Dec.2014: **Associate Professor,** Dept. of Electrical Eng., Sahand Univ. of Technology, Tabriz, Iran

Jan. 2015: **Professor,** Dept. of Electrical Eng., Sahand Univ. of Technology, Tabriz, Iran

Misc. Activities in other universities:

1993 to 1995 : **Lecturer,** Computer Engineering Department, Iran University of Science & Technology,

Tehran, Iran.

1996 to 1997 : **Lecturer,** Dept. of Electrical Eng., Tabriz University, Tabriz, Iran.

1996 to 2001 : **Lecturer,** Payam Noor University, Tabriz, Iran

1997 to 2001 : **Lecturer,** Industrial Management Institute, Tabriz, Iran

<u>2000 to 2001</u> : **Lecturer,** Jehad Daneshgahi Institute, Tabriz.

Professional Activities

- Editor-in-Chief of Journal of Nonlinear Systems in Electrical Engineering.
- Editor of Wiley Transactions on Emerging Telecommunications Technologies Journal, March 2011-2014.
- Associate Editor of International Journal of Advances in Optical Communication and Networks (IJAOCN), Dec.2010-2012
- Associate Editor of Journal of Convergence Information Technology, Advanced Institute of Convergence IT (AICIT), Dec.2010-2012
- **IEEE Membership**

  Senior member: Feb. 2012 to present

  Member: 2007 to Feb. 2012

  Student member: 2004 to 2006
- **OSA Membership**

  Member: 2008, 2010 - 2012

  Student member: 2006
- Reviewer for different journals: IEEE Journal of Optical Communications and Networking, IEEE Transactions on Computers, IEEE Communications Letters, ETRI Journal, IJECE Journal, Elsevier Computer Networks, Elsevier Performance Evaluation, Springer Telecommunication systems, Wiley Security and Communication Networks.
- TPC member of First Computer Science Conference on Computer and Information Technology, Nov.2011, Tabriz University, Tabriz, Iran.
- TPC member of Extending Industrial Applications of Information, Communications and Computations (EIA-ICC) Conference, Feb.2012, Shahid Madani University, Tabriz, Iran.
- TPC member of International Workshop on Converged Networks, Technologies and Applications (CNTA 2013), In conjunction with ICNC 2013, San Diego, USA, January 28-31, 2013.
- TPC member of Networking and Electronic Commerce Research Conference 2013 (NAEC 2013), Riva del Garda, Italy, October 17- 20, 2013.
- TPC member of Second Computer Science Conference on Computer and Information Technology, Nov.2014, Tabriz University, Tabriz, Iran.
- Reviewer for different conferences: IEEE ICC, IEEE GLOBECOM, IEEE International Symposium on Telecommunications (IST), Iranian Conf. on Electrical Engineering (ICEE).

Awards

- Distinguished professor at Sahand University of Technology, 2016.

- Distinguished researcher in department of Electrical Engineering, Sahand University of Technology: 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007.

- Distinguished researcher in Engineering in Azarbaijan Sharqi province, 2012.

- Distinguished educator at department of Electrical Engineering, 2011, 2012.

- Ph.D. thesis nominated for the best thesis at computer science department, University of Ottawa, 2006.

- Full Ph.D. scholarship awarded by Ministry of Science, Research, Technology of Iran, 2002.

Taught courses

Graduate: Provision of QoS in Computer Networks, Optical Networks, Performance Evaluation of Computer Networks, Advanced Computer Networks, Data Communication Networks, Wireless Networks.

Undergraduate: Microprocessors(8086, 8085, MCS8051, Z80), Computer Architecture, Logic Circuits, Data Structures, Interfaceing Circuits, Programming Languages, Numerical Calculations, Information Storage and Retrieve, Assembly Language Programming, Informatics Systems, Fundamentals of Computer Programming, Artificial Intelligence, Advanced Computer Programming (C , Pascal , Basic , Fortran , and Foxpro), Microprocessor lab, Computer Architecture and Logical Circuits Lab.

Completed Research Projects:

	Title of Research Project	Name of Manager	Employer	Finish Date
1	Flood Forecasting Model for North West of Iran (Data Collection and Information Processing)	Asgar Chobdar and Akbar Ghaffarpour Rahbar	Sahand University of Technology	July 1999
2	Flood Forecasting Model for Ajichai Domain	Asgar Chobdar and Akbar Ghaffarpour Rahbar	Sahand University of Technology	January 2004
3	Design of New Techniques for Contention Avoidance in Optical Packet Switched (OPS) Networks	Akbar Ghaffarpour Rahbar	Sahand University of Technology	August 2008
4	Design of Optimum Routing Algorithm for WDM Networks	Akbar Ghaffarpour Rahbar	East Azarbaijan Telecommunication Research Center , Iran	February 2010
5	Bandwidth Access in Slotted OPS Networks Considering Quality of Service	Akbar Ghaffarpour Rahbar	Sahand University of Technology	May 2010

Supervised Master Theses:

	MSc / PhD	Title of Thesis	Student Name	Supervisor / Advisor	Defense Date	University	Financially Supported by
1	**M.Sc of Communications**	Secure Communication Among Vehicles in Vehicular Ad Hoc Networks (VANET)	Ameneh. Daeinabi	Supervisor (Advisor: Dr. Khademzadeh)	19 Dec. 2008	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
2	**M.Sc of Communications**	QoS Improvements for WDM Optical Networks Using Rerouting	Amir Kakekhani	Supervisor	13 Jan. 2009	Sahand University of Technology	-
3	**M.Sc of Information Technology**	Dynamic Bandwidth Allocation in Passive Optical Networks	Mustafa Vahabzadeh	Supervisor	3 July 2010	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
4	**M.Sc of Information Technology**	QoS Improvements for Internet Protocol TV (IPTV) in Metropolitan Networks	Sajjad Zare	Supervisor	3 July 2010	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
5	**M.Sc of Information Technology**	Improving Fairness in All-Optical Networks	Saeed Barkabi	Supervisor	1 Feb. 2011	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
6	**M.Sc of Information Technology**	Packet Loss Rate Analysis in OPS Networks	Mehdi Shamsi	Supervisor	9 Feb. 2011	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
7	**M.Sc of Information Technology**	Improvement of Packet Scheduling in WiMAX	Shahram Khoshnavaz	Supervisor	25 Apr. 2011	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
8	**M.Sc of Information Technology**	Dynamic Bandwidth Allocation in Ethernet-based Passive Optical Networks (PONs) and Long Reach PONs Considering Quality of Service	Ali Razmkhah	Supervisor	10 Sept. 2011	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
9	**M.Sc of Information Technology**	IPTV in Cellular Networks	Ali Athari	Supervisor	17 Sept. 2011	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
10	**M.Sc of Information Technology**	Improvement of IPTV Services in Access Networks Domain	Hamed Shahbazifard	Supervisor	18 Sept. 2011	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
11	**M.Sc of Information Technology**	Opportunistic Routing in Vehicular Ad Hoc Networks in City Environments	Marzieh Barootkar	Supervisor (Advisor: Dr. Sabaee)	26 Sept.. 2011	Sahand University of Technology	-
12	**M.Sc of Information Technology**	Cost Effective Contention Resolution and Avoidance Schemes in Bufferless Optical Packet Switching Networks	Saeedeh Asemani	Supervisor	23 Nov. 2011	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
13	**M.Sc of Information Technology**	Intrusion Detection in AODV routing in VANET	Mahdi Asghari Kahnamouei	Supervisor	23 Nov. 2011	Sahand University of Technology	-
14	**M.Sc of Information Technology**	A New Heuristic Delivery Video Scheme for VoD Service in Optical Access Networks	Sepideh Nikmanzar	Supervisor	14 Jul. 2012	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
15	**M.Sc of Information Technology**	Bandwidth Allocation to IPTV Services in Access Networks	Kian Abdollahi	Supervisor	24 Sept. 2012	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
16	**M.Sc of Information Technology**	Improvement of Energy Consumption in Optical Networks	Mohammad Ali Mohseni	Supervisor	24 Sept. 2012	Sahand University of Technology	-

17	**M.Sc of Information Technology**	Improvement of Handover in LTE networks	Elham Khalili	Supervisor	19 Nov. 2012	Sahand University of Technology	Iran Telecom. Research Center (ITRC)
18	**M.Sc of Information Technology**	Congestion Control in Fiber-Wireless (FiWi) Access Networks	Yavar Rashidpour	Supervisor	7 Sep. 2013	Sahand University of Technology	-
19	**M.Sc of Information Technology**	Optimization of Information Transmission in Cellular Networks	Maryam Esmaeilifard	Supervisor	7 Sep. 2013	Sahand University of Technology	-
20	**M.Sc of Information Technology**	Bandwidth Allocation Management of Light-Trail in Optical-Wireless Networks for |High-Speed Metro-Train Systems	Azadeh Faroughi	Supervisor	1 Oct. 2013	Sahand University of Technology	-
21	**M.Sc of Information Technology**	Bandwidth and Wavelength Allocation Improvement in WDM-PON	Siavosh Golabi	Supervisor	20 Jan. 2014	Sahand University of Technology	-
22	**M.Sc of Information Technology**	An Approach for Improving Channel Zapping Time in IPTV/WiMAX	Abdol Agheli Khosrowshahi	Second Supervisor	19 Feb. 2014	Urmia University	-
23	**M.Sc of Information Technology**	Novel Contention Avoidance Approaches in Bufferless Optical Packet Switched Networks	Masoud Asghari	Supervisor	May 2014	Sahand University of Technology	-
24	**M.Sc of Information Technology**	Energy Consumption, Cost and Quality of Service Improvement in Elastic Optical Networks	Forough Shirin Abkenar	Supervisor	3 June 2014	Sahand University of Technology	-
25	**M.Sc of Information Technology**	Improving Quality of Service in Mobile Internet protocol Television (IPTV) on LTE Cellular Networks	Mohammad Yazdanpanah	Supervisor	Nov. 2014	Sahand University of Technology	-
26	**M.Sc of Information Technology**	Dynamic Bandwidth Allocation in Long-Reach PONs	Morteza Ahmadi	Supervisor	3 Jan. 2015	Sahand University of Technology	-
27	**Ph.D. of Communications**	Design and Analysis of Energy Efficient Impairment Aware Routing and Wavelength Assignment Algorithms in All Optical Data Center Interconnection Networks	Amin Ebrahimzadeh	Supervisor (Advisor: Dr. Behrooz Alizadeh)	2 Sept. 2015	Sahand University of Technology	-
28	**M.Sc of Information Technology**	Novel Scheduling Algorithms for All-Optical AAPN Networks	Mohammad Saleh Mehri	Supervisor	Oct. 2015	Sahand University of Technology	-
29	**M.Sc of Information Technology**	Optimizing Bandwidth in Hybrid Optical Networks	Lida Ghaemi	Supervisor	Oct. 2015	Sahand University of Technology	-
30	**M.Sc of Information Technology**	Effective Optical Packet Switching in Ring Optical Networks	Faeze Hampaei	Supervisor	Feb. 2016	Sahand University of Technology	-
31	**M.Sc of Information Technology**	Contention Resolution in Optical Packet Switched Networks	Shahryar Didevara	Supervisor	Sept. 2016	Sahand University of Technology	-
32	**M.Sc of Information Technology**	Active Rerouting in All-Optical Networks	Mahila Samet	Supervisor	Sept. 2016	Sahand University of Technology	-
33	**M.Sc of Information Technology**	Bandwidth Provisioning in Integrated Light Trail-LTE Network	Iman Bagherpour Khoshki	Supervisor	Nov. 2016	Sahand University of Technology	-
34	**M.Sc of Information Technology**	Improvement of 5G Wireless Networks	Ghazal Mesbahi	Supervisor	Oct. 2017	Sahand University of Technology	-
35	**M.Sc of Information Technology**	Bandwidth Allocation in Elastic Optical Networks	Shirin Haj Ahmadi	Supervisor	Jan. 2018	Sahand University of Technology	-
36	**M.Sc of Information Technology**	Reducing Energy Consumption in Cloud Computing	Maede Yavari	Supervisor	Jan. 2018	Sahand University of Technology	-
37	**M.Sc of Information Technology**	Resource Allocation in Space Division Multiplexing Elastic Optical Network (SDM-EON) for Different Switching Solutions	Amin Ghadesi	Supervisor	Feb. 2018	Sahand University of Technology	-

38	**M.Sc of Information Technology**	Energy-Aware Elastic Optical Networks (EA-EONs)	Asiyeh Abi Kisomi	Supervisor	Feb. 2018	Sahand University of Technology	-
39	**M.Sc of Information Technology**	Improvement of Fragmentation Problem in Elastic Optical Networks	Faezeh Yousefi	Supervisor	Feb. 2018	Sahand University of Technology	-
40	**M.Sc of Information Technology**	Grooming in Elastic optical Networks	Mina Hosseini	Supervisor	Feb. 2018	Sahand University of Technology	-
41	**M.Sc of Information Technology**	An Scheduling Algorithm for Optical Buffers in Optical Packet Switched Networks	Fahimeh Bayani	Supervisor	Feb. 2018	Sahand University of Technology	-
42	**M.Sc of Information Technology**	Energy Efficient Routing in IoT	Marjan Farahani	Supervisor	May 2018	Sahand University of Technology	-
43	**Ph.D. of Communications**	Optimizing the Route, Modulation Level, Space and Spectrum Assignment Problem in Space Division Multiplexing- Elastic Optical Networks	Mohsen Yaghoubi	Supervisor	Sept. 2018	Sahand University of Technology	-
44	**M.Sc of Information Technology**	Improvement of Architecture-on-Demand Approach on Space-Division Multiplexing Switches	Maryam Hosseini	Supervisor	Oct. 2018	Sahand University of Technology	-
45	**M.Sc of Information Technology**	Improvement of Routing and Spectrum Assignment in EON-SDM Networks	Arezou Mahmoudi	Supervisor	Feb. 2019	Sahand University of Technology	-
46	**M.Sc of Information Technology**	Survivability in Elastic Optical Networks	Zeinab Ahmadi	Supervisor	Feb. 2019	Sahand University of Technology	-
47	**Ph.D. of Computer Science**	Providing New Methods for Improving Defragmented Frequency Spectrum in Elastic Optical Networks	Ali Athari Beyragh	First Supervisor	June 2019	Qom University	-
48	**M.Sc of Information Technology**	Routing, Core and Spectrum Assignment for Protected Space Division Multiplexing Elastic Optical Networks	Soheil Hosseini	Supervisor	June 2019	Sahand University of Technology	-
49	**M.Sc of Information Technology**	The Improvement of Bandwidth Fragmentation Problem in SDM-EON with Multi-core Fibers	Mohammad Jafar Beyrami	Supervisor	Sept. 2019	Sahand University of Technology	-
50	**M.Sc of Information Technology**	Authentication in internet of Things	Sharaeh Amiri	Supervisor	Sept. 2019	Sahand University of Technology	-
51	**M.Sc of Information Technology**	Fragmentation in in Elastic optical Networks	Elham Poukarimi	Supervisor	Oct. 2020	Sahand University of Technology	-
52	**M.Sc of Information Technology**	Evaluation of Survivable Elastic Optical Networks Considering Restoration Concepts	Shima Koulaei Zadeh	Supervisor	Oct. 2021	Sahand University of Technology	-
53	**M.Sc of Information Technology**	The Improvement of Survivability and Restoration in Optical Networks	Saba Shakuri	Supervisor	Sept. 2021	Sahand University of Technology	-
54	**M.Sc of Information Technology**	Improvement in Bandwidth Fragmentation Problem in SDM-EON based on Core Classification	FatemehZahra JalaviNezhad	Supervisor	Oct. 2021	Sahand University of Technology	-
55	**M.Sc of Information Technology**	Multicasting in Elastic Optical Networks	Fateme Zavvari Fesaghandis	Supervisor	Sept. 2022	Sahand University of Technology	-
56	**M.Sc of Information Technology**	Survivability in Elastic Optical Networks	Saba Hoseinpour Nourani	Supervisor	Sept. 2022	Sahand University of Technology	-
57	**M.Sc of Information Technology**	Fragmentation in Elastic Optical Networks	Mahdiyeh Hafezi	Supervisor	Sept. 2022	Sahand University of Technology	-
58	**Ph.D. of Communications**	Reducing the Wastage of Resources and Maintaining the Integrity of the Spectrum in Elastic Optical Networks	Yaghoub Khorasani	Supervisor	Oct. 2023	Sahand University of Technology	-

Practical Experiences

[6] Vice Chancellor of Electrical Engineering Department at Sahand University of Tech. since June 2007.

[5] Head of ICT office at Sahand University of Technology from 1995 to 2002.

[4] Network manager at Sahand University of Technology (from 1999 to 2001).

[3] Design and programming a software to store Iranian laws and all their features. This software provides the capability of searching for laws through a number of ways.

[2] Design and programming four different softwares for administrative affairs (Budget, Wages, Organization, and Investigation) at Sahand University of Technology.

[1] Design and programming a software with different capabilities to provide a hand-woven carpet plan. This software is also used to guide a person to weave a carpet by telling the number and the color of warps and wefts in a carpet plan.