

Curriculum Vitae

SHAHRIAR SHIRVANI MOGHADDAM

Grade: **Ph.D. of Electrical Engineering**

Associate Professor of Communications/IEEE Senior Member

Main Expertise: **Wireless Communications,**

Radio Frequency Energy Harvesting,

D2D Communications,

Cognitive Radio HetNets,

Ultra-Dense Networks,

Digital Array Signal Processing (DOA estimation)

Job: **Scientific Member of Faculty of Electrical Engineering**

Work Postal Address: **Digital Communications Signal Processing**

Research Lab., Faculty of Electrical Engineering, Shahid Rajaee Teacher

Training University, Lavizan, 16788-15811, Tehran, Iran.

Work Tel/Fax: **+98 21 22970006.**

Scopus (Mendeley)

h-index: **8**

(187 total citations)

WoS

h-index: **6**

(64 total citations)

GoogleScholar

h-index: **12**

i10-index: **16**

(496 total citations)

ResearchGate

h-index: **11 (7)**

Score: **24.36**

(430 total citations)

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ORCID: **<https://orcid.org/0000-0002-8427-2446>**

Scopus: **<https://www.scopus.com/authid/detail.uri?authorId=27467813900>**

WoS Researcher ID: **I-6825-2019**

Publons: **<https://publons.com/researcher/1353998/shahriar-shirvani-moghaddam/>**

LiveDNA: **<https://livedna.net/?dna=98.1085>**

GoogleScholar: **<https://scholar.google.com/citations?user=0CfyOPAAAAAJ&hl=en>**

Mendeley: **<https://www.mendeley.com/catalogue/46f3b527-208c-3f16-a38e-aefac460491f/>**

Academia: **<https://srttu.academia.edu/ShahriarMoghaddam>**

Kudos: **<https://www.growkudos.com/hub/299916/profile>**

ResearchGate: **https://www.researchgate.net/profile/Shahriar_Shirvani_moghaddam**



EDUCATIONS

1. **Doctor of Philosophy**, Electrical Engineering (1st class honor), Iran University of Science and Technology, May 2001.

Thesis: Simulation, Design and Improvement of Handoff Decision and Handoff Execution in Cellular Communication Systems (Supervisor: Prof. Tabataba Vakili).

2. **Master of Science**, Electrical Engineering-Communications (1st class honor), Islamic Azad University, September 1995.

Thesis: Design and Development of Cellular Communication Systems (Prof. Rezaee).

3. **Bachelor of Science**, Electrical Engineering-Communications, Iran University of Science and Technology, May 1992.

Dissertation: Design and Implementation of Clock Recovery System in Baseband PAM (Supervisor: Prof. Tabataba Vakili).

RESEARCH EXPERTISE

1. Optimization in Wireless Radio Communications
2. Wireless Ultra Dense Networks (UDN)
3. Cognitive Radio Communications
4. D2D Wireless Radio Communications
5. Handover in Cellular Communications and Heterogeneous Networks
6. Power Control and Beamforming in Wireless MIMO and Relay-based Cooperative Comm.
7. Compressed Sensing in Wireless Radio Communications
8. Digital Antenna Array Beamforming (Narrowband/Wideband)
9. Narrowband/Wideband DOA Estimation and Determining the Number of Wireless Radio Sources

ACADEMIC AND RESEARCH WORKS (IN BRIEF)

1. Dean of Faculty of Electrical and Computer Engineering, Shahid Rajaei Teacher Training University (2013-2015)
2. Head of Communications Department, Shahid Rajaei Teacher Training University (2012-2015)
3. Head of Electronics Department, Shahid Rajaei Teacher Training University (2004-2006)
4. Author of 1 book in electrical engineering (In Farsi), 2 books in digital communications (In Farsi), and 2 book chapters in MIMO channel estimation and cognitive radio
5. Editor of a book entitled “Cognitive Radio in 4G/5G wireless Communication Systems.”
6. Scientific editor of a Farsi book entitled “Principles of LED based optical wireless communications.”
7. Lecturer of 14 undergraduate (B.Sc.) Courses
8. Lecturer of 12 graduate (M.Sc. and Ph.D.) courses
9. 36 JCR, ISI, Scopus and ISC Journal Papers
10. 20 other international journal papers

11. 43 International conference papers
12. 31 Local (National) conference papers
13. 19 Research projects for industry and University
14. Presenter of 5 workshops
15. Presenter of 15 academic presentations
16. Supervisor of 3 Ph.D. students
17. Supervisor of 36 M.Sc. students
18. Adviser of 22 M.Sc. students
19. Supervisor of 44 M.Sc. seminars
20. Supervisor of 29 B.Sc. students
21. Supervisor of 3 student research projects
22. Editor in Chief (EiC) of Journal of Electrical and Computer Engineering Innovations (JECEI)-
From 2013-2020.
23. Internal or external examiner of more than 136 M.Sc. and Ph.D. theses
24. Reviewer of 277 ISI, ISC and international journals' papers as well as 140 conference papers
25. Session Chair in ISSPIT2015, ICEEM2017, ITS2017.
26. Scientific Chair of 3rd Iranian Conference on Communications Engineering
27. Referee of Kharizmi's festival proposals
28. Reviewer of more than 28 research projects and books
29. Reviewer of more than 40 innovations
30. Senior Member of IEEE and member of scientific societies such as ISCEEE and ISC
31. 11 years engineering experiments in oil and gas communication projects (Off-shore/On-shore)
32. Best researcher and lecturer awards (16).

BOOKS

1. **S. Shirvani Moghadda, "Introduction to Electrical Engineering and Its Subfields (Communications, Control, Electronics, and Power), Winter 2020 (In Farsi).**
2. **S. Shirvani Moghaddam (as the Editor), "Cognitive Radio in 4G/5G Wireless Communication Systems," INTECHOPEN Publisher, DOI: 10.5772/intechopen.74815, ISBN: 978-1-78984-707-9, Print ISBN: 978-1-78984-706-2, 5th December 2018.**
3. **S. Shirvani Moghaddam (as the Scientific Editor), "Principles of LED Based Optical Wireless Communications," Shahid Rajae Teacher Training University Press, 2017 (In Farsi).**
4. **S. Shirvani Moghaddam, "An Introduction to Digital Communications and Its Applications," Shahid Rajae Teacher Training University Publishing Center, 1st Edition- Autumn 2008, 2nd Edition- Summer 2013 (In Farsi).**
5. **S. Shirvani Moghaddam, "Introduction to Digital Communications," Publisher of Communications Center of Artesh, Summer 2004 (In Farsi).**

BOOK CHAPTERS

1. **S. Shirvani Moghaddam**, “Cognitive Radio in 4G/5G Wireless Communication Systems,” **Chapter 1, “Introductory: Primary and Secondary Users in Cognitive Radio Based Wireless Communication Systems,”** pp. 1-12, INTECHOPEN Publisher, **2018 (DOI: 10.5772/intechopen.82033).**
2. **S. Shirvani Moghaddam**, Hossein Saremi, “MIMO Systems, Theory and Applications,” **Chapter 3, “Joint LS Estimation and ML Detection for Flat Fading MIMO Channels,”** pp. 69-86, ISBN: 978-953-307-245-6, INTECH Publisher, April **2011.**

LECTURER OF UNDERGRADUATE COURSES (B.Sc.)

- Introduction to Electrical Engineering
- Digital Communications
- Analog Communications
- Signals and Systems
- Telecommunication Transmission Lines
- Filters and Synthesis
- Electromagnetics
- Electric Circuits 1
- Electric Circuits 2
- Digital Communications Lab.
- Communications Circuits Lab.
- Logic Circuits Lab.
- Electronic 3 Lab.
- Mathematics 1
- Mathematics 2

LECTURER OF GRADUATE COURSES (M.Sc. AND Ph.D.)

- Stochastic Processes
- Advanced Theory of Communications
- Digital Signal Processing
- Digital Communications Signal Processing
- Cryptography
- Wireless Communications
- Satellite Communications
- Mobile Communications
- Cognitive Radio Communications
- Special Issues in Digital Communications
- Special Issues in Wireless Communications
- Special Issues in Communications (Linear Algebra + Optimization)

JCR, ISI, SCOPUS AND ISC JOURNAL PAPERS

1. N. Mahdian, A. Khorsandi, H.R. Baghaee, N. Sadati, **S. Shirvani Moghaddam**, and J. Guerrero, “**Voltage and Frequency Consensusability of Autonomous Microgrids Over Fading Channels,**” IEEE Transactions on Energy Conversion, (WoS), In-Press 2020 (DOI: 10.1109/TEC.2020.3005269).
2. M. Alibeigi, **S. Shirvani Moghaddam**, “**Sum-Rate Optimization Constrained by Consumed Power in Multi-Antenna Non-Regenerative Relay Network,**” International Journal of Sensors, Wireless Communications and Control (SWCC), (Scopus), Vol. 10, No. 2, pp. 143-152, **2020 (DOI: 10.2174/2210327909666190219125535).**
3. **S. Shirvani Moghaddam**, “**Outage Analysis of Energy Harvested Direct/Relay-Aided Device-to-Device Communications in Nakagami Channel,**” Journal of Communications Software and Systems (JCOMSS), Vol. 14, No. 4, pp. 302-311, December **2018 (DOI: 10.24138/jcomss.v14i4.490).**
4. **S. Shirvani Moghaddam**, A. Habibzadeh, “**Cooperative Spectrum Sensing Based on Generalized Likelihood Ratio Test for Cognitive Radio Channels with Unknown Primary User’s Power and**

- Colored Noise,”** International Journal of Sensors, Wireless Communications and Control (SWCC), Vol. 8, No. 3, pp. 204-216, September **2018** (DOI: [10.2174/2210327908666180730092433](https://doi.org/10.2174/2210327908666180730092433)).
5. **S. Shirvani Moghaddam**, H. Ghavami, “**Joint Mode Selection and Resource Allocation in Device-to-Device Communications,**” International Journal of Sensors, Wireless Communications and Control (SWCC), Vol. 8, No. 4, pp. 217-227, September **2018** (DOI: [10.2174/2210327908666180808115057](https://doi.org/10.2174/2210327908666180808115057)) .
 6. H. Ghavami and **S. Shirvani Moghaddam**, “**Performance Analysis of Device to Device Communications Overlaying/Underlying Cellular Network,**” Iranian Journal of Information Technology and Communications, Vol. 9, No. 33-34, pp. 35-44, Fall/Winter **2018**.
 7. **S. Shirvani Moghaddam**, “**Outage Analysis of Non-Orthogonal In-Band Relay-Aided Device-to-Device Communications in Rayleigh Fading Channels,**” Internet Technology Letters (ITL), Wiley, Vol. 1, No. 2, March-April **2018** (DOI: [10.1002/itl2.8](https://doi.org/10.1002/itl2.8)).
 8. A. Habibzadeh, **S. Shirvani Moghaddam**, S.M. Razavizadeh, and M. Shirvanimoghaddam, “**Modeling and Analysis of Traffic-aware Spectrum Handover Schemes in Cognitive HetNets,**” Transactions on Emerging Telecommunications Technologies (ETT), Wiley, Vol. 28, No. 12, Dec. **2017** (DOI: [10.1002/ett.3199](https://doi.org/10.1002/ett.3199)).
 9. M. Alibeigi, **S. Shirvani Moghaddm**, “**Sum-Rate Maximization Based on Power Constraints for Cooperative AF Relay Networks,**” Journal of Communications Engineering (JCE), Vol. 6, No. 1, pp. 1-25, Jan.-June **2017** (DOI: [10.22070/jce.2017.1688.1003](https://doi.org/10.22070/jce.2017.1688.1003)).
 10. A. Habibzadeh, **S. Shirvani Moghaddm**, M. Razavizadeh, M. Shirvani Moghaddam, “**Analysis and Performance Evaluation of an Efficient Handover Algorithm for Cognitive HetNets,**” International Journal of Communication Systems (IJCS), Wiley, Vol. 30, No. 16, Nov. **2017** (DOI: [10.1002/dac.3315](https://doi.org/10.1002/dac.3315)).
 11. **S. Shirvani Moghaddam**, R. Jalili Danaloo, “**Radio Identification of Primary Users Based on Cooperative Compressed Sensing,**” Tabriz Journal of Electrical Eng., Vol. 47, No. 4, pp. 1551-1561, **2018** (In Farsi).
 12. H. Ghavami, **S. Shirvani Moghaddam**, “**Outage Probability of Device to Device Communications Underlying Cellular Network in Suzuki Fading Channel,**” IEEE Communications Letters, Vol. 21, No. 5, pp. 1203-1206, May **2017** (DOI: [10.1109/LCOMM.2017.2655042](https://doi.org/10.1109/LCOMM.2017.2655042)).
 13. H. Ghavami, **S. Shirvani Moghaddam**, “**Analysis of Outage Probability for In-Band Device to Device Communications Underlying Cellular Network,**” International Journal of Communication Systems (IJCS), Wiley, Vol. 30, No. 14, pp. 1-8, Feb. **2017** (DOI: [10.1002/dac.3286](https://doi.org/10.1002/dac.3286)).
 14. **Shahriar Shirvani Moghaddam**, Akbar Keshavarz Nasab, “**A Low-Complex Setup for DOA Estimation of Coherent Signals of Unknown Sources Located at Endfire Angles,**” Journal of Radar, Vol. 4, No. 1, pp. 15-25, Spring **2016** (In Farsi).
 15. **S. Shirvani Moghaddam**, F. Akbari, “**A New Switched-beam Setup for Adaptive Antenna Array Beamforming,**” Journal of Information Systems and Telecommunication, Vol. 4, No. 1 , pp. 1-10, **2016** (DOI: [10.7508/jist.2016.01.001](https://doi.org/10.7508/jist.2016.01.001)).
 16. **S. Shirvani Moghaddam**, M .Alibeigi, “**Joint Power Control and Beamforming in MIMO Relays,**” COMPEL, Vol. 35, No. 1, pp. 102-116, **2016** (DOI: [10.1108/COMPEL-11-2014-0309](https://doi.org/10.1108/COMPEL-11-2014-0309)).

17. **S. Shirvani Moghaddam, Z. Ebadi, and V. Tabataba Vakili, "A Novel DOA Estimation Approach for Unknown Coherent Source Groups with Coherent Signals,"** Iranian Journal of Electrical and Electronic Engineering, Vol. 11, No. 1, pp. 8-16, Feb. 2015 (DOI: 10.22068/IJEEE.11.1.8).
18. **S. Shirvani Moghaddam, S. Alamsi Monfared, "Interference Elimination and Direction-Of-Arrival Estimation of Wideband Cyclostationary Communication Signals,"** Journal of Soft Computing and Information Technology, Vol. 3, No. 2, pp. 9-20, Summer 2014 (In Farsi).
19. **S. Shirvani Moghaddam, A. Janan, "Performance Evaluation of 2-D DOA Estimation Algorithms in Noisy Channels,"** International Journal of Sensors, Wireless Communications and Control (SWCC), Vol. 3, No. 2, pp. 95-100, May 2014 (DOI: 10.2174/2210327903999140103101550).
20. **S. Shirvani Moghaddam, S. Jalaei, "A New Method for Detecting the Number of Coherent Sources in the Presence of Colored Noise,"** Journal of Information Systems and Telecommunication (JIST), Vol. 1, No. 3, pp. 55-60, July/Sept. 2013 (DOI : 10.7508/jist.2013.03.007).
21. **S. Shirvani Moghaddam, "Modeling the Environmental Effects on the Radiated Fields of a Passive RFID System,"** International Journal of Applied Electromagnetics and Mechanics (IJAEM), Vol. 42, pp. 539-559, Summer 2013 (DOI: 10.3233/JAE-131683).
22. **S. Shirvani Moghaddam, H. Sadeghi, "Performance Evaluation of CCM-based Antenna Array Beamforming,"** Iranian Journal of Electrical and Computer Engineering (IJECE), Vol. 11, No. 2, pp. 77-84, Summer/Fall 2012.
23. **S. Shirvani Moghaddam, Z. Ebadi, and V. Tabataba Vakili, "Modified FOC-based Root-MUSIC Algorithm for DOA Estimation of Coherent Signal Groups,"** Life Science Journal, Vol. 10, No. 1, pp. 843-846, 2013.
24. **S. Shirvani Moghaddam, F. Akbari, "Efficient Narrowband Direction of Arrival Estimation Based on a Combination of Uniform Linear / Shirvani-Akbari Arrays,"** International Journal of Antennas and Propagation (IJAP), Hindawi, Sept. 2012 (DOI: 10.1155/2012/280845).
25. **F. Eshagh Hosseini, S. Shirvani Moghaddam, "Controlling Initial and Final Radii to Achieve a Low-complexity Sphere Decoding Technique in MIMO Channels,"** International Journal of Antennas and Propagation (IJAP), Hindawi, Feb. 2012 (DOI: 10.1155/2012/192964).
26. **S. Shirvani Moghaddam, H. Sadeghi, "A New Combination of RAKE Receiver and Adaptive Antenna Array Beamformer for Multi User Detection in WCDMA Systems,"** International Journal of Antennas and Propagation (IJAP), Hindawi, August 2011 (DOI: 10.1155/2011/208301).
27. **S. Shirvani Moghaddam, F. Akbari, "A Novel ULA-based Geometry for Improving AOA Estimation,"** EURASIP Journal on Advances in Signal Processing, Springer, Vol. 2011: 39, Aug. 2011 (DOI: 10.1186/1687-6180-2011-39).
28. **S. Shirvani Moghaddam, M. Shirvani Moghaddam, "A Comprehensive Survey on Antenna Array Signal Processing,"** Invited Paper, Journal of Trends in Applied Sciences Research, Vol. 6, No. 6, pp. 507-536, 2011 (DOI: 10.3923/tasr.2011.507.536).

29. **S. Shirvani Moghaddam**, S. Almasi Monfared, “**A Comprehensive Performance Study of Narrowband DOA Estimation Algorithms,**” International Journal on Communications Antenna and Propagation (IRECAP), Vol. 1, No. 4, pp. 396-405, August 2011.
30. **S. Shirvani Moghaddam**, N. Solgi, “**A Comparative Study on TDL and SDL Structures for Wideband Antenna Array Beamforming,**” International Journal on Communications Antenna and Propagation (IRECAP), Vol. 1, No. 4, pp. 388-395, August 2011.
31. V. Tabataba Vakili, **S. Shirvani Moghaddam**, A. Mohebbi, D. Abbasi Moghaddam, “**Noncoherent Weighted Detection for Time Reversal UWB Systems: Energy and Kurtosis Detectors,**” International Journal on Communications Antenna and Propagation (IRECAP), Vol. 1, No. 2, pp. 174-181, April 2011.
32. H. Nooralizadeh, **S. Shirvani Moghaddam**, “**Appropriate Algorithms for Estimating Frequency-Selective Rician MIMO Channels and its Rice Factor: Substantial Benefits of Rician Model and Estimator Tradeoffs,**” EURASIP Journal on Wireless Communications and Networking (WCN), Hindawi, Vol. 2010, Article ID: 753637, 14 pages (DOI: 10.1155/2010/753637).
33. **S. Shirvani Moghaddam**, H. Saremi, “**A Novel Semi-Blind Channel Estimation Scheme for Rayleigh Flat Fading MIMO Channels (Joint LS Estimation and ML Detection),**” IETE Journal of Research, Vol. 56, Issue 4, pp. 193-201, July/Aug. 2010.
34. H. Nooralizadeh, **S. Shirvani Moghaddam**, “**A Novel Shifted Type of SLS Estimator for Estimation of Rician Flat Fading MIMO Channels,**” Elsevier Signal Processing, Vol. 90, No. 6, pp. 1886-1893, 2010 (DOI: 10.1016/j.sigpro.2009.12.009).
35. M. Dashti, M. Abtahi, and **S. Shirvani Moghaddam**, “**Performance Evaluation of Direct Sequence Ultra Wide Band (DS-UWB) Technique in Multipath Fading Channels,**” Iranian Journal of Electrical and Computer Engineering, Vol. 3, No. 2, pp. 89-95, Fall/Winter 2005 (In Farsi).
36. **S. Shirvani Moghaddam**, V. Tabataba Vakili, “**Handoff Initiation in Cellular Mobile Communication Systems,**” International Journal of Engineering Sciences (IUST), Vol. 13, No. 1, pp.117-137, 2002.

INTERNATIONAL JOURNAL PAPERS

1. S. Jalaei, **S. Shirvani Moghaddam**, “**Estimating the Number of Wideband Radio Sources,**” Journal of Electrical and Computer Engineering Innovations (JECEI), Vol. 4, No. 1, pp. 25-30, 2016
2. **S. Shirvani Moghaddam**, M. Kamarzarin, “**A Comparative Study on the Two Popular Cognitive Radio Spectrum Sensing Methods: Matched Filter versus Energy Detector,**” American Journal of Mobile systems, Applications and Services, Vol. 1, No. 2, pp. 132-139, Oct. 2015.
3. **S. Shirvani Moghaddam**, F. Baramaki Yazdi, “**Bit Error Rate Evaluation for Different Relay Selection Schemes in Decode-and-Forward Two-Way Relay Networks,**” International Journal of Research Studies in Electrical and Electronics Engineering, Vol. 1, No. 1, pp. 35-41, August 2015.
4. **S. Shirvani Moghaddam**, M. Alibeigi, “**Sum Rate Maximization Based on Joint Power Control and Beamforming in MIMO One Way AF Relay Networks,**” British Journal of Applied Science and Technology (BJAST), Vol. 5, No. 3, pp. 285-296, Jan. 2015 (DOI: 10.973/BJAST/2015/13115).
5. **S. Shirvani Moghaddam**, M. Alibeigi, “**SNR Maximization Based on Joint Power Control and Beamforming for AF Relay Network,**” Journal of Mobile Computing (MC), Vol. 3, pp. 13-17, 2014.

6. **S. Shirvani Moghaddam, F. Baramaki Yazdi, "A New Modification on Relay Selection by Considering the Effect of Relay Occupancy,"** Journal of Scientific Research and Reports (JSRR), Vol. 4, No. 3, pp. 241-252, Feb. 2015 (DOI: 10.973/JSRR/2015/13002).
7. **S. Shirvani Moghaddam, F. Baramaki Yazdi, "Performance Evaluation of Relay Selection Schemes in Two-Way AF Relay Networks,"** International Journal of Comm., Vol. 3, No. 1, pp. 42-47, 2014.
8. **S. Shirvani Moghaddam, M.R. Pishgoo, "New Ideas to Improve the Performance of Frequency Invariant Wideband Antenna Array Beamforming,"** Majlesi Journal of Telecommunication Devices, Vol. 2, No. 4, pp. 135-140, Dec. 2013.
9. **S. Shirvani Moghaddam, A. Keshavarz Nasab, "A New Threshold-based JADE-MUSIC Algorithm for DOA Estimation of Unknown Signal Groups,"** Journal of Electrical and Control Engineering (JECE), Vol. 3, No. 6, pp. 17-22, Nov./Dec. 2013.
10. **S. Shirvani Moghaddam, S. Jalaei, "Determining the Number of Coherent Sources Using FBSS-based Methods,"** Frontiers in Science, Vol. 2, No. 6, pp. 203-208, Dec. 2012.
11. **S. Shirvani Moghaddam, F. Akbari, "Improving LMS/NLMS-Based Beamforming Using Shirvani-Akbari Array,"** American Journal of Signal Processing (AJSP), Vol. 2, No. 4, pp. 70-75, August 2012 (DOI: 10.5923/j.ajsp.20120204.03).
12. **S. Shirvani Moghaddam, M. Shirvani Moghaddam, "Speed-Sensitive Weighting Algorithm for Digital Beamforming of Adaptive Antenna Arrays,"** Wireless Engineering and Technology (WET), Vol. 2, No. 3, pp. 165-174, July 2011.
13. **S. Shirvani Moghaddam, M. Shirvani Moghaddam, "A New On-Line/Off-Line Adaptive Antenna Array Beamformer for Tracking the Mobile Targets,"** International Journal of Communications, Network and System Sciences (IJCNS), Vol. 4, No. 5, pp. 304-312, May 2011.
14. **R. Farhadi, V. Tabataba Vakili, and S. Shirvani Moghaddam, "A Novel Cross-Layer Scheduling Algorithm for OFDMA-Based WiMAX Networks,"** International Journal of Communications, Network and System Sciences (IJCNS), Vol. 4, No. 2, pp. 98-103, Feb. 2011.
15. **H. Nooralizadeh, S. Shirvani Moghaddam, "Performance Improvement in Estimation of Spatially Correlated Fading MIMO Channels Using a New LMMSE Estimator,"** International Journal of Communications, Network and System Sciences (IJCNS), Vol. 3, No. 12, pp. 1-10, Dec. 2010.
16. **S. Shirvani Moghaddam, M. Shahmoradi Ghahe, "Performance Evaluation of Mobile Ad-Hoc Network Based on DSR Routing Protocol,"** Journal of Electrical Engineering Science, Islamic Azad University, South Tehran Branch, Vol. 1, No. 1, pp. 41-51, 2010.
17. **M. Jalali, S. Shirvani Moghaddam, H. Aminelahi, "Evaluation of Angular Accuracy of ML, MUSIC, Root-MUSIC and Spatial Smoothing Methods for Direction Of Arrival (DOA) Estimation,"** Technology and Education Journal of Shahid Rajaee Teacher Training University, Vol. 1, No. 4, pp. 197-204, Summer 2007 (In Farsi).
18. **V. Tabataba Vakili, S. Shirvani Moghaddam, "A Novel Handoff Prioritization Scheme Based on Propagation and Traffic Criteria,"** Technology and Education Journal of Shahid Rajaee Teacher Training University, Vol. 1, No. 2, pp. 29-35, Winter 2007.

19. **S. Shirvani Moghaddam**, H. Nooralizadeh, A.H. Khodadadi, “**Traffic Prioritization in Cellular Mobile Communication Systems,**” Technology and Education Journal of Shahid Rajaei Teacher Training University, Vol. 1, No. 1, pp. 37-50, Autumn **2006** (In Farsi).
20. **S. Shirvani Moghaddam**, V. Tabataba Vakili, “**Improvement of Handoff in Cellular Mobile Communication Systems,**” Islamic Azad University Seasonal Journal of Sciences and Engineering, Vol. 1, No. 1, pp. 23-34, Winter **1999** (In Farsi).

INTERNATIONAL CONFERENCE PAPERS

1. **S. Shirvani Moghaddam** and K. Shirvani Moghaddam, “**Efficient Base-Centric/User-Centric Clustering Algorithm Based on Thresholding and Sorting,**” The 14th IEEE International Conference on Innovations in Information Technology (IIT’20), AIAin, UAE, **2020**.
2. **S. Shirvani Moghaddam**, M. Shirvanimoghaddam, and A. Habibzadeh, “**Clustering-based Handover and Resource Allocation Schemes for Cognitive Radio Heterogeneous Networks,**” The 28th International Telecommunication Networks and Applications Conference (ITNAC2018), UNSW, Sydney, Australia, Nov. **2018**.
3. **S. Shirvani Moghaddam**, M. Ghasemi, “**Efficient Clustering for Multicast Device-to-Device Communications,**” 7th International Conference on Computer and Communication Engineering (ICCCE2018), IIUM, Kuala Lumpur, Malaysia, pp. 228-233, September **2018** (DOI: **10.1109/ICCCE.2018.8539276**).
4. **S. Shirvani Moghaddam**, M. Ghasemi, “**A Low-complex/High-throughput Resource Allocation for Multicast D2D Communications,**” 7th International Conference on Computer and Communication Engineering (ICCCE2018), Kuala Lumpur, Malaysia, pp. 234-239, September **2018** (DOI: **10.1109/ICCCE.2018.8539307**).
5. **S. Shirvani Moghaddam**, “**A Novel Resource Reuse in Device to Device Communications,**” Internet Technologies and Society (ITS2017) Conference, proceedings of IADIS digital library, pp. 35-42, Sydney, Australia, 11-13 Dec. **2017**.
6. Z. Ebadi, **S. Shirvani Moghaddam**, “**Modified Rotational Signal Subspace Algorithm,**” International IEEE Conference on Wireless Communications, Signal Processing and Networking (WiSPNET2017), Chennai, India, pp. 2557-2560, 22-24 March **2017** (DOI: **10.1109/WiSPNET.2017.8300224**).
7. H. Ghavami, **S. Shirvani Moghaddam**, “**Outage Probability for Underlying Device to Device Communications,**” International Symposium on Telecommunications (IST2016), Tehran, Iran, 27-28 Sept. **2016** (DOI: **10.1109/ISTEL.2016.7881839**).
8. A. Habibzadeh, **S. Shirvani Moghaddam**, M. Razavizadeh, and M. Shirvanimoghaddam, “**A Spectrum Handover Mechanism for Secondary Users in Cognitive Femtocell HetNets,**” Iranian Conference on Electrical Engineering (ICEE2016), Shiraz, Iran, pp. 442-446, 10-12 May **2016** (DOI: **10.1109/IranianCEE.2016.7585562**).
9. A. Habibzadeh, **S. Shirvani Moghaddam**, “**Noise Calibrated GLRT-based Spectrum Sensing Method for Cognitive Radio Applications,**” The 15th IEEE International Symposium on Signal Processing and

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2. **S. Shirvani Moghaddam, "Design, Software Simulation and Hardware Implementation of Digital Communications Circuits on Bread Board,"** Shahid Rajae Teacher Training University, February 2020.
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1. **"GUI-Based Simulator for TDL and SDL Antenna Beamforming Structures,"** by: Nasrollah Solgi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Dec. 2011.

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SUPERVISOR OF Ph.D. THESES

1. **“Clustering and Resource Allocation in Wireless Ultra Dense Networks Based on On/Off Technique,”** Student: A. Oskoueian, Shahid Rajae Teacher Training University, Financially supported by Iran National Science Foundation (INSFI), In progress.
2. **“Improvement of Handover in Femtocell-based Cellular Cognitive Radio Network,”** Student: A. Habibzadeh, Shahid Rajae Teacher Training University, May **2017**.
3. **“Design of Optimum Training Sequences for Channel Estimation of Spatially Correlated Multi-Input Multi-Output Rician Fading Channels,”** Student: H. Nooralizadeh, Islamic Azad Univ., **2009**.

SUPERVISOR OF M.Sc. THESES

1. **“Joint Optimization of Energy Efficiency and Spectral Efficiency in Ultra Dense Networks,”** Student: M. Khani, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, In Progress.
2. **“Improving Capacity of Massive Multi-Input Multi-Output Systems Using Adaptive Antenna Array Beamforming,”** Student: M.M. Fathollahi, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, In Progress.
3. **“Resource Allocation in Cooperative Cellular Vehicle-to-Vehicle Communications for Improving Reliability and Latency in Urban Environments,”** Student: Mehran Hosseini, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, In Progress.
4. **“Radio Resource Allocation in 5G Ultra-Reliable Low Latency Communications,”** Student: Farshid Hampaian Miandoab, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, In Progress.
5. **“Resource Allocation in Vehicle-to-Vehicle Communications Based on Side-Link in LTE Cellular Networks,”** Student: Navid Nobakhti, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, In Progress.
6. **“Resource Allocation in Underlay Device to Device Communications Based on Clustered Poisson Process,”** Student: Nasimeh Afzalkhani, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, In Progress.
7. **“Modeling and Numerical Analysis of Power Control in Ultra Dense Networks Based on On/Off Technique,”** Student: Ehsan Sahraee, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, June **2020**.

8. **“Resource Allocation and Power Control in Energy Harvested Underlay Device to Device Communications,”** Student: Shiva Rabeian, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, November **2019**.
9. **“Clustering and Optimum Resource Allocation in Cellular Networks with Device to Device Communications,”** Student: Mahsa Ghasemi, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Feb. **2018**.
10. **“Improvement of Energy Efficiency for Device to Device Communications Using Proper Mode Selection Algorithm,”** Student: Kolsum Chamanzadeh, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Feb. **2017**.
11. **“Performance Improvement for Relay-Aided Underlay D2D Communications,”** Student: Mohammad Reza Parvizi, Faculty of Electrical Engineering, Shahid Rajae Teacher Train. Univ., **2017**.
12. **“Simulation and Software Implementation of Time and Frequency Domain Cyclostationary-based OFDM Detection for Cognitive Radio Applications,”** Student: Ehsan Abedi, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Sept. **2016**.
13. **“Optimization of Radio Resource Allocation for Device to Device Communications in Relay-Assisted Cellular Structures,”** Student: Hossein Ghavami, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Sept. **2016**.
14. **“Compensation of Mutual Coupling of Dipole Array Antenna for Exact Direction of Arrival Estimation,”** Student: Mina aghamohammadi, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Jan. **2016**.
15. **“Spectrum Sensing and Radio Localization in Cognitive Radio Communications Based on Compressed Sensing,”** Student: Rashin Jalili Danaloo, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Oct. **2015**.
16. **“Two Dimensional Direction Of Arrival (DOA) Estimation of Communication Signals Based on the MUSIC, ESPRIT and Propagator Algorithms,”** Student: Ali Janan, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Financially supported by Iran Telecommunication Research Center (ITRC), Feb. **2014**.
17. **“Joint Power Control and Beamforming in Two Way Relay Networks,”** Student: Fahimeh Baramaki Yazdi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Train. Univ., Feb. **2014**.
18. **“Joint Power Control and Beamforming in MIMO Relay Networks,”** Student: Maraym Alibeigi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Feb. **2014**.
19. **“Joint Wideband Frequency Domain Direction Of Arrival (DOA) Estimation and Antenna Beamforming Algorithm,”** Student: Mohammad Rahim Pishgoo, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Sept. **2013**.
20. **“Determining the Number of Wireless Radio Sources in the Presence of Colour Noise and Coherent and Noncoherent Signals,”** Student: Somaye Jalaei, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Financially supported by Iran Telecommunication Research Center (ITRC), Feb. **2013**.

21. **“Angle Of Arrival (AOA) Estimation in Multipath Environments Using Antenna Arrays with Lower Elements than Source Numbers,”** Student: Z. Ebadi, Islamic Azad Univ., South Branch, **2012.**
22. **“Direction Of Arrival (DOA) Estimation of Communication Signals Based on Fourth Order Cumulants,”** Student: Akbar Keshavarz Nasab, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Financially supported by Iran Telecomm. Research Center, **2012.**
23. **“Direction Of Arrival (DOA) Estimation of Wideband Signals Based on Cyclic MUSIC Algorithm and A New Array Geometry,”** Student: Sakineh Almasi Monfared, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Financially supported by Iran Telecommunication Research Center (ITRC), Feb. **2012.**
24. **“Wideband Adaptive Array Antenna Beamforming,”** Student: Nasrollah Solgi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Financially supported by Iran Telecommunication Research Center (ITRC), Feb. **2012.**
25. **“Adaptive Base Station Antenna Beamforming for Multi User Applications in WCDMA Systems,”** Student: Hajar Sadeghi, Islamic Azad University, Tehran South Branch, Feb. **2011.**
26. **“Adaptive Antenna Array Beamforming Using Combination of LMS Weighting and MUSIC Direction Of Arrival (DOA) Estimation Algorithms,”** Student: Farida Akbari, Islamic Azad University, Tehran South Branch, Feb. **2011.**
27. **“Updating Weighting Coefficients of Smart Antennas Using Estimation of Angle and Movement Direction of Signal Source,”** Student: Roohollah Kalami Rad, Islamic Azad Univ., South Branch, **2009.**
28. **“Survey of Radio Frequency IDentification (RFID) System and the Effect of Environmental Phenomena on Its Performance,”** Student: Poorya Kamalvand, Booshehr Islamic Azad Univ., **2009.**
29. **“Channel Estimation in MIMO Systems and Its Effect on Capacity and Quality,”** Student: Hossein Saremi, Islamic Azad University, Tehran South Branch, Feb. **2008.**
30. **“Interference Reduction in WCDMA-Based Cellular Mobile Communication Systems,”** Student: Mahdi Jalali, Islamic Azad University, Tehran South Branch, Feb. **2006.**
31. **“Selection, Design and Optimization of WLL-Based Communication Networks,”** Student: Afshin Shahgholi, Islamic Azad University, Tehran South Branch, Feb. **2006.**
32. **“Paging and Location Updating in Two-Layer Cellular Structures,”** Student: Arash Zamani, Islamic Azad University, Tehran South Branch, Feb. **2006.**
33. **“Antenna Beamforming in Cellular Mobile Communication Systems Using Smart Antennas,”** Student: Ahmad Reza Vizandan, Islamic Azad University, Tehran South Branch, July **2005.**
34. **“Radio Resource Managemant in CDMA-Based Cellular Mobile Communication Systems,”** Student: Ali Zareii Aliabadi, Islamic Azad University, Tehran South Branch, Sept. **2004.**
35. **“Design, Simulation, Performance Comparison and Improvement of Mobile Set Localization in Cellular Mobile Communications,”** Student: Zarrin Fallah, Islamic Azad Univ., South Branch, **2003.**
36. **“Survey, Simulation, Performance Comparison and Improvement of Traffic Prioritization in Cellular Mobile Communications,”** Student: A.H. Khodadadi, Islamic Azad Univ., South Branch, **2003.**

ADVISOR OF M.Sc. THESES

1. **“Design, Simulation and Fabrication of Near-Filed Printed Coil for In-Body Communications,”** Student: A. Moshki Kashi, Faculty of Electrical Engineering, Shahid Rajae Teacher Train. Univ., In Progress.
2. **“Design and Simulation of a Wireless Communication Link for Endoscopy Capsule,”** Student: B. Asghari, Faculty of Electrical Engineering, Shahid Rajae Teacher Train. Univ., Feb. **2019**.
3. **“Joint Compensation of Mutual Coupling and shadowing in Cylindrical Conformal Array Antenna for Improving Direction of Arrival Estimation,”** Student: Rasoul Karamzadeh, Faculty of Electrical Engineering Shahid Rajae Teacher Training University, Aug. **2018**.
4. **“Modeling Indoor Millimeter Wave Propagation,”** Student: Abdolmanaf Azizian, Faculty of Electrical and Computer Engineering Shahid Rajae Teacher Training University, Dec. **2014**.
5. **“Synchronization in Ultra Wide Band (UWB) Wireless Communication Systems,”** Student: Amin Izadi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Train. Univ., Feb. **2014**.
6. **“Users Sum Bit Rate Maximization Algorithms in Multicarrier Cooperative Cognitive Radio Systems and Enhancement,”** Student: Ahmad Farjami, Islamic Azad Univ., South Branch, Feb. **2014**.
7. **“Analysis, Simulation and Improvement of Cellular Networks Sum Rate Increment Algorithm Based on Interference Alignment,”** Student: Mahsa Shab, Islamic Azad Univ., South Branch, **2013**.
8. **“Performance Improvement of Non-Coherent Energy Detectors in Ultra Wide Band (UWB) Systems,”** Student: Ali Mohebbi, Islamic Azad University, Tehran South Branch, July **2011**.
9. **“ Evaluation of Handover Initiation Algorithm between WiMAX and UMTS and Enhancement,”** Student: Mahboob Jafari Feiz, Islamic Azad University, Tehran South Branch, Feb. **2011**.
10. **“Design of Inter-Cell Schedueling to Achieve Quality of Service in WiMAX Mobile Networks,”** Student: Ronak Farhadi, Islamic Azad University, Tehran South Branch, Feb. **2011**.
11. **“Capacity of Relay-Based Wireless Cellular Networks,”** Student: Faeze Haidari, Islamic Azad University, Tehran South Branch, Sept. **2010**.
12. **“Control of Inter Cell Interference in Down-Link of 3GPP-LTE Networks Using Adaptive Radio Resource Reuse Method,”** Student: Zahra Bakhti, Islamic Azad University, South Branch, July **2010**.
13. **“Modeling UWB Channels in Indoor LOS Environment,”** Student: Mostafa Yahyaabadi, Islamic Azad University, Tehran South Branch, Jan. **2010**.
14. **“Survey and Performance Improvement of Channel Estimation of UWB Systems in Time and Frequency Domains,”** Student: Marzie Rezaeian Kiasari, Islamic Azad Univ., South Branch, **2009**.
15. **“Predicting Dynamic Behavior of Cellular Mobile Channels Using Neural Networks,”** Student: Mohsen Hatami Sadegh, Islamic Azad University, Tehran South Branch, Sept. **2009**.
16. **“Design of Turbo Code Decoder for DVB Carrier,”** Student: Mojtaba Mohammadpoor, Islamic Azad University, Tehran South Branch, Feb. **2009**.
17. **“Synchronization in MIMO-OFDM Systems,”** Student: Afshin Sattari Fallah, Islamic Azad University, Tehran South Branch, Feb. **2008**.
18. **“Design and Simulation of UMTS Mobile Network Using OPNET Software,”** Student: Mohammad Reza Analooei, Islamic Azad University, Tehran South Branch, September **2007**.

19. **“Temporal-Spatial Processing in MIMO Channels,”** Student: Fatemeh Eshagh Hosseini, Islamic Azad University, Tehran South Branch, Feb. **2007**.
20. **“Offering a Model for Evaluation and Selection Contractors of Satellite Communication Networks,”** Student: Razie Zare, Islamic Azad University, Tehran South Branch, Sept. **2006**.
21. **“Noise and Noise Reduction Methods in Low Noise Amplifiers,”** Student: Mahindokht Keshavarzian, Islamic Azad University, Tehran South Branch, Dec. **2005**.
22. **“Direct Sequence Ultra Wide Band (DS-UWB) Technique in Wireless Communications,”** Student: Mina Dashti, Islamic Azad University, Tehran South Branch, July **2004**.

SUPERVISOR OF M.Sc. SEMINARS

1. **“Clustering in V2V,”** Student: A. Azad, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, February **2021**.
2. **“5G Ultra Dense Networks and Beyond,”** Student: M. Khani, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, September **2020**.
3. **“Beamforming in mmWave Massive MIMO Systems,”** Student: M.M. Fathollahi, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, September **2020**.
4. **“Ultra-Reliable Low-Latency Communications in 5G communications,”** Student: F. Hampaeian, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, August **2019**.
5. **“Wireless Radio Vehicle Communications for Auto-driving of Vehicles: Challenges and Solutions,”** Student: N. Nobakhti, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, August **2019**.
6. **“Vehicle to Vehicle Wireless Radio Communications: Challenges and Solutions,”** Student: S.M. Hosseini, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, August **2019**.
7. **“Analysis and Performance Evaluation of Ultra Dense Networks Based on Stochastic Geometry,”** Student: Ehsan Sahraee, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Aug. **2018**.
8. **“Analysis and Performance Evaluation of Device to Device Communications Based on Stochastic Geometry,”** Student: Nasimeh Afzalkhani, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Aug. **2018**.
9. **“Out-Band Device to Device Communications,”** Student: Shiva Rabieian, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Sept. **2017**.
10. **“Clustering in Underlay Device to Device Communications,”** Student: Mahsa Ghasemi, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Sept. **2016**.
11. **“Direction of Arrival Estimation Based on Compressed Sensing for Wideband Signals,”** Student: Reza Khosravifard, Faculty of Electrical Engineering, Shahid Rajae Teacher Train. Univ., Sept. **2016**.
12. **“Direction of Arrival Estimation Based on Compressed Sensing for Coprime Arrays,”** Student: Abbas Ali Mirani Moghaddam, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Sept. **2016**.

13. **“Energy Efficient Algorithms in Wireless D2D Communications,”** Student: Kolsum Chamanzadeh, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, June **2015**.
14. **“Resource Allocation Optimization for Relay-Assisted Device to Device Communications in Cellular Networks,”** Student: Hossein Ghavami, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, June **2015**.
15. **“Power Control and Data Rate Improvement in Cognitive Radio Communications,”** Student: Mohammad Reza Parvizi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Feb. **2015**.
16. **“Software Defined Radio (SDR) for Cognitive Radio Communications ,”** Student: Ehsan Abedi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training Univ., August **2014**.
17. **“Spectrum Sensing and Localization in Cognitive Radio Communications,”** Student: Rashin Jalaili Danaloo, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training Univ., **2014**.
18. **“Different Radio Spectrum Sensing Methods in Cognitive Radio Communications,”** Student: Alireza Ahmadian, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Train. Univ., **2013**.
19. **“Antenna Array Beamforming and Power Control in Cellular Structures and Relay-Based Networks,”** Student: Fahimeh Baramaki Yazdi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2012**.
20. **“Antenna Array Beamforming and Power Control in Multi-Input Multi-Output Communication Systems,”** Student: Maryam Alibeigi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2012**.
21. **“Frequency Independent Wideband Antenna Array Beamforming,”** Student: Mohammad Rahim Pishgoo, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training Univ., **2012**.
22. **“ESPRIT-Based Direction Of Arrival (DOA) Estimation of Wireless Radio Sources and Its Extended Versions,”** Student: Elham Fathi, Islamic Azad Univeristy, Tehran South Branch, Feb. **2012**.
23. **“New Methods on Estimation of the Number of Wireless Radio Sources,”** Student: Somaye Jalaei, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2011**.
24. **“One-Dimensional Estimation Methods for Multidimensional Direction Of Arrival (DOA) Esimation of Wireless Radio Sources ,”** Student: Ali Janan, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2011**.
25. **“Direction Of Arrival (DOA) Estimation and Antenna Beamforming for Large Arrays,”** Student: Mina Modaresi, Islamic Azad Univeristy, Tehran South Branch, Feb. **2011**.
26. **“Direction Of Arrival (DOA) Estimation and Antenna Beamforming in Multipath Channels,”** Student: Zohre Ebadi, Islamic Azad Univeristy, Tehran South Branch, Feb. **2011**.
27. **“Direction Of Arrival (DOA) Estimation of Communication Signals Considering the Effect of Mutual Coupling in Array Antennas,”** Student: M. Dehghanpoor, Islamic Azad Univ., South Branch, Feb. **2011**.
28. **“Two and Three Dimensional Direction Of Arrival (DOA) Estimation of Communication Signals,”** Student: Mahdieh Ghasemloo, Islamic Azad Univeristy, Tehran South Branch, Feb. **2011**.

29. **“Direction OF Arrival (DOA) Estimation of Wideband Communication Signals,”** Student: Homa Valinejad, Islamic Azad Univeristy, Tehran South Branch, Sept. **2010**.
30. **“Direction Of Arrival (DOA) Estimation of Communication Signals Based on MUSIC Algorithm,”** Student: Sakineh Almasi Monfared, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2010**.
31. **“Adaptive Wideband Processing in Smart Antennas,”** Student: Nasrollah Solgi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2010**.
32. **“Direction Of Arrival (DOA) Estimation of Communication Signals Based on Higher Order Statistics (HOS),”** Student: Akbar Keshavarz Nasab, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2010**.
33. **“The Effect of Direction Of Arrival (DOA) Estimation in Smart Antenna Beamforming,”** Student: Farida Akbari, Islamic Azad Univeristy, Tehran South Branch, September **2009**.
34. **“Adaptive Processing in Smart Antennas,”** Student: Hajar Sadeghi, Islamic Azad Univeristy, Tehran South Branch, Sept. **2009**.
35. **“Smart Antennas and Its Application in WiMAX,”** Student: Farhad Sobhi, Islamic Azad Univeristy, Tehran South Branch, Sept. **2009**.
36. **“Adaptive Blind Weighting Algorithms in Smart Antennas,”** Student: Homa Aligholi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Sept. **2009**.
37. **“Antenna Beamforming Using Adaptive Antenna Arrays and Direction Of Arrival (DOA) Estimation,”** Student: Roohollah Kalami Rad, Islamic Azad Univeristy, South Branch, July **2008**.
38. **“Increasing the Capacity of Multi-Input Multi-Output (MIMO)-Based Systems Using Smart Antennas,”** Student: Maryam Hashemi, Islamic Azad Univeristy, Tehran South Branch, Oct. **2009**.
39. **“Ultra Wide Band (UWB) Communications and Its Applications,”** Student: Mahyar Shankaei, Islamic Azad Univeristy, Tehran South Branch, Sept. **2005**.
40. **“W-CDMA and Its Applications,”** Student: Fatemeh Eshagh Hosseini, Islamic Azad Univeristy, Tehran South Branch, Sept. **2005**.
41. **“Wireless Local Loops (WLLs) and Comparison of Different Standards,”** Student: Afshin Shahgholi, Islamic Azad Univeristy, Tehran South Branch, Feb. **2005**.
42. **“Digital Watermarking and Information Hiding”** Student: Ahamad Reza Vizandan, Islamic Azad Univeristy, Tehran South Branch, Feb. **2004**.
43. **“Channel Assignment in Cellular Mobile Communication Systems,”** Student: Ebrahim Zareii Aliabadi, Islamic Azad Univeristy, Tehran South Branch, Oct. **2003**.
44. **“Mobile Communications in 21st Century,”** Student: Mina Dashti, Islamic Azad Univeristy, Tehran South Branch, May **2003**.

SUPERVISOR OF B.Sc. DISSERTATIONS

1. **“Digital Array Antenna Beamforming in Massive MIMO Systems,”** Student: Mahdi Ghasemi, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, In-progress.

2. **“Design, Simulation and Performance Evaluation of New Waveforms for 5G Communications,”**
Student: Amir Masoud Mirzaeian, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, August **2019**.
3. **“Ultra Reliable Low Latency Communications (URLLC) for Vehicle to Vehicle Communications,”**
Student: Mahdi Khani, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Feb. **2019**.
4. **“Digital Antenna Array Beamforming Based on Compressive Sensing,”** Student: Hassan Keshvari Khojasteh, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, Feb. **2017**.
5. **“Simulation and Performance Evaluation of Wireless Communications in Relay-Assisted D2D Cellular Structures,”** Student: Aida Saremi, Faculty of Electrical Engineering, Shahid Rajae Teacher Training University, July **2016**.
6. **“Developing a Software for Vector Signal Analysis of Telecommunication Signals,”** Students: Ali Zareii and Masood Mardanshahi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Summer **2014**.
7. **“Radio Spectrum Sensing Using Energy Detector-Based and Matched Filter Methods,”** Student: Mehrnoosh Kamarzarrin, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, July **2013**.
8. **“Software and Hardware Digital Communications Laboratory (Pulse Modulations),”** Student: Mohammad Noori, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Sept. **2011**.
9. **“Software Realization of RLS Algorithm for Adaptive Antenna Array Beamforming,”** Student: Jafar Zamani, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Sept. **2010**.
10. **“Software Realization of LMS-Based Algorithms for Adaptive Antenna Array Beamforming,”**
Student: Saeed Najafi Mosleh, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Dec. **2009**.
11. **“Software Realization of Constant Modulus Algorithm (CMA) for Adaptive Antenna Array Beamforming,”** Student: Mohammad Ghadian, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Dec. **2009**.
12. **“Software and Hardware Digital Communications Laboratory (Digital Bandpass Modulations),”**
Students: Ahmad Mohebzadeh Behabadi and Ali Abbaszadeh Arani, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Dec. **2009**.
13. **“Classification of Digital Modulation Signals in the Presence of Noise and Fading Using Neural Networks,”** Student: Reza Rasti Boroujeni, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2009**.
14. **“Software Realization of Fixed Beam Antenna Array Beamforming,”** Student: Mohammad Dabibi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, June **2009**.

15. **“Identification of Analog Modulation Signals in the Presence of Noise and Fading,”** Student: Abdolhamid Mousavi Asl, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Dec. **2008**.
16. **“Survey and Simulation of Multi-Input Multi-Output (MIMO)-Based systems Considering Noise and Rayleigh Fading,”** Student: Arash Rafie Boroujeni, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, July **2008**.
17. **“Software Simulation and Performance Evaluation of Different Digital Modulations in Noisy Channels Considering Two Types (Rayleigh and Rician) Fading,”** Student: Seyed Hassan Daryanavard, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Oct. **2007**.
18. **“Smart Antennas and Antenna Beamforming Using Antenna Arrays,”** Student: Shirkooh Ahmadi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training Univ., Sept. **2007**.
19. **“Software Simulation and Performance Evaluation of Different Diversity Receiving in Wireless Communication Systems,”** Student: Mohsen Esmaili, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Sept. **2007**.
20. **“Survey and Comparison of Narrowband, Wideband and Ultra Wideband Communication Systems,”** Student: Javad Salemi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, July **2007**.
21. **“Software Package for Calculating Indoor Audio Coverage and Placement of Amplifiers,”** Student: Aminollah Azad, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Sept. **2005**.
22. **“Suggestion, Simulation and Performance Evaluation of A New Method for Wireless Radio Communication of Far Distance Mobile Units,”** Student: Morteza Shahmoradi Ghahe, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, July **2005**.
23. **“Evolution and Progress of Handsets, Batteries, Displays, processors and other Components of Mobile Telephones in 21st Century,”** Student: Akbar Karimi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Feb. **2005**.
24. **“Wireless Technologies: W-LAN and Bluetooth,”** Student: Naser Seidi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Feb. **2005**.
25. **“Optical Fiber,”** Student: Mahdi Nosrat Abadi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Feb. **2005**.
26. **“Radio Waves Propagation and Making a Software Package for Designing Point to Point Radio Links,”** Student: Mahdi Mollazadeh Golmahaleh, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Feb. **2005**.
27. **“Survey, Description and Comparison of Different Methods for Reducing Noise and Interference in Mobile Communication Systems,”** Student: Shamsoddin Naderi, Faculty of Electrical and Computer Engineering, Shahid Rajae Teacher Training University, Feb. **2004**.

28. **“Design, Simulation and Performance Comparison of Source Coders (Shanon, Shanon-Fano and Huffman),”** Student: Amir Zarrin Kolah, Faculty of Oloom va Fonoon FARABI, January **2004**.
29. **“Voice Encryption by Time, Frequence and Combined Methods (Compariosn the Performance of Different Methods Using Computer Simulations),”** Students: Hamed Salimi and Majid Afzali, Faculty of Oloom va Fonoon FARABI, August **2003**.

REVIEWER OF ISI, ISC AND INTERNATIONAL JOURNALS

- ✓ Bulletin of Electrical Engineering and Informatics (EEI)
- ✓ Computer Communications-Elsevier
- ✓ Electronics and Telecommunications Research Institute (ETRI) Journal
- ✓ Electronic and Cybernetics Defence
- ✓ EURASIP Wireless Communication Networks (WCN)
- ✓ Hindawi-Mathematical Problems in Engineering
- ✓ IAU Journal of Electrical Engineering Science
- ✓ IEEE-Access
- ✓ IEEE- Communications Letters
- ✓ IEEE- Transactions on Vehicular Technology
- ✓ IET- Microwaves, Antennas and Propagation
- ✓ IET- Radar, Sonar & Navigation
- ✓ IET- Signal Processing
- ✓ IET- Communications
- ✓ IET- Electronics Letters
- ✓ IET-Circuits, Devices and Systems
- ✓ IET- Journal Of Engineering (JOE)
- ✓ Internatioanl Journal of Applied Electromagnetics and Mechanics (IJAEM)
- ✓ International Journal of Communication Systems (IJCS)- Wiley
- ✓ International Journal of Computer and Information Technology (IJCIT)
- ✓ International Journal of Electronics and Communications (AEUE)-Elsevier
- ✓ International Journal of Sensors, Wireless Communications and Control (IJSWCC)
- ✓ Iranian Association of Electrical and Electronic Engineers (IAEEE)
- ✓ Iranian Journal od Electrical and Electronic Engineering (IJEED)
- ✓ Iranian Journal of Electrical and Computer Engineering (IJECE)
- ✓ Iranian Journal of Science and Technology (ISTE)
- ✓ International Journal of Electrical and Computer Engineering (IJECE)
- ✓ Jordanian Journal of Computers and Information Technology
- ✓ Journal of Signal and Data Processing (JSDP)
- ✓ Journal of Communication Engineering (JCE)
- ✓ Journal of Communications Software and Systems (JCOMSS)
- ✓ Journal of Electrical and Computer Engineering Innovations (JECEI)

- ✓ Journal of Electronic Industries
- ✓ Journal of Information Systems and Telecommunications (JIST)
- ✓ Journal of Soft Computing and Information Technology (JSCIT)
- ✓ Mobile Computing (MC)
- ✓ Passive Defence
- ✓ Physical Review and Research International (PRRI)
- ✓ Radar
- ✓ Recent Patents on Computer Science
- ✓ Scientific Research and Essays (SRE)
- ✓ Sensors
- ✓ Springer Annals of Telecommunications
- ✓ Springer Wireless Personal Communications (WPC)
- ✓ SpringerPlus
- ✓ Tabriz Journal of Electrical Engineering (TJEE)
- ✓ Technology of Education
- ✓ The Int. Journal for Computation and Mathematics in Electric. and Electronic Engineering (COMPEL)
- ✓ The Journal of Acoustical Society of America (JASA)
- ✓ Transactions on Emerging Telecommunications Technologies (ETT)- Wiley

REVIEWER OF INTERNATIONAL/LOCAL CONFERENCES

ICEE2004, ICEE2005, ICEE2009, IST2012, IST2014, CEE2014, ICCE2015, ICEE2015, ICEE2016, ISCISC2016, SGC2017, ICEEM2017, MICC2017, IST2018, WiSPNET2018, IWCIT2018, ITNAC2018, WiSPNET2019, ICEE2019, ICEE2020, RADAR2020, IST2020.

MEMBER OF SCIENTIFIC SOCIETIES

1. Senior Member of Institute of Electrical and Electronic Engineers (IEEE)
2. Editor in Chief (EiC) and Member of Editorial Board of Journal of Electrical and Computer Engineering Innovations (JECEI)- From July 2013 up to now.
3. Member of Technical Editorial Board of Technology and Education Journal (Shahid Rajae Teacher Training University)- From Oct. 2006 to Dec. 2008.
4. Member of Iranian Scientific Society of Engineering Electromagnetics (ISSEE)
5. Continuous Member of Iranian Society of Cryptography (ISC)
6. LinkedIn/ResearchGate/ORCID/GoogleScholar/Scopus/WoS/Publons/LiveDNA/Mendeley/FaceBook/Twitter/YouTube

ENGINEERING EXPERIMENTS

11 years engineering experiments in Basic and Detail Design of Communication Systems of Oil, Gas and Petrochemical Onshore and Offshore Sites (Aboozar, Bahregansar, Ghalenar, Nargesi, Parsi, Khark and Mobin), **1995-2006.**

AWARDS in Shahid Rajae Teacher Training University (SRTTU)

1. **Editor in Chief of the best Journal-2019**

2. **Active Researcher- 2018**
3. **Active Researcher- 2017**
4. **Editor in Chief of the best Journal-2016**
5. **The best lecturer- 2016.**
6. **The best researcher** in Faculty of Electrical and Computer Engineering-**2014.**
7. **The best researcher in** Faculty of Electrical and Computer Engineering-**2013.**
8. **The supervisor** of the best M.Sc. Thesis-**2013.**
9. **The supervisor** of the best M.Sc. Thesis in Faculty of Electrical and Computer Engineering- **2013.**
10. **The best lecturer** (Province level)-**2013.**
11. **The Praiseworthy researcher-2012.**
12. **The best researcher** in Faculty of Electrical and Computer Engineering-**2011.**
13. **The best lecturer -2011.**
14. **The best researcher-2010.**
15. **The best lecturer-2008.**
16. **The best head of department-2007.**
17. **The best lecturer-2005.**

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