Afshin Ebrahimi (PhD)

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Education:

B.Sc.: Communication Eng., Tabriz University, July, 1999.

M.Sc.: Electronics Eng., Tarbiat Modares University, Sep., 2001.

Ph.D.: Electronics Engineering, Tarbiat Modares University, Tehran, IRAN, Sep., 2005.

Thesis title: "Using Shape of Farsi Subwords for Document Image Retrieval and Printed Text

Recognition".

Thesis supervisor: Prof. E. Kabir

Employment:

- Lecturer, Kharazmi University, Tehran, Iran, 2002-2005.
- Assistant Professor, Sahand University of Technology, Tabriz, Iran, 2005 2012.
- Vice-President for Information Technology, Faculty of E-Learning, Sahand University of Technology, Since 2011.
- Associate Professor, Sahand University of Technology, Tabriz, Iran, 2012-2016.
- Member of Road Traffic Injury Research Center, Tabriz Medical University, 2015-2019.
- Administrator of ICT office, Sahand University of Technology, Tabriz, Iran, 2006-2016.
- Region 3 secretary for Information Technology, Ministry of Science, Research and Technology, 2014-2016.
- Member of Cyber Defense base, East Azerbaijan, 2011-2015.
- Member of Informatics Council, Sahand University of Technology, Since 2015.
- Dean of Electrical Engineering Faculty, Sahand University of Technology, 2014-2018.
- Member of university senate, Since 2014.
- Professor, Sahand University of Technology, Tabriz, Iran, Since 2016.
- Director of Incubator Center, Sahand University of Technology, 2018-2022.
- Dean of Electrical Engineering Faculty, Sahand University of Technology, Since April 2022.
- Member of the Board of Directors of Information Technology Organization of Tabriz Municipality, Since 2019. <u>website</u>
- Chairman of the Board of Directors of the Special Technology Zone, Rabe Rashidi, Since 2022.
- Co-founder and CEO of Tosee Tadbir Tavan Teb Company (founded at 2014) website.

Courses:

Logic Design, Electronics Circuits, Electrical Circuits, Stochastic Processes, Neural Networks, Image Processing, Pattern Recognition, Artificial Intelligence, Distributed Systems, Compressive Sensing, Multimedia Communication Systems I & II, Wireless Communication Systems, Deep Learning.

Research:

Research Interests:

Optical Character Recognition, Document Image Analysis and Retrieval, Pattern Recognition, Neural Networks, Deep Learning, Wireless Communication.

Projects:

- "Retrieval of Printed Farsi Documents", Industrial Development and Renovation Organization of IRAN (IDRO), 2004.
- "Retrieval of Printed Farsi Official Letters", East Azerbaijan Telecommunication Company, 2010.
- "Cell phone encoder", SAFAVA, Tehran, Iran, 2011.
- "Information Exchange through gas pipelines", East Azerbaijan Gas Co, Tabriz, Iran, 2014.

Publications:

Journal papers:

F Shoeibi, E Najafiaghdam, A Ebrahimi, "Nonlinear features of photoplethysmography signals for Non-invasive blood pressure estimation", Biomedical Signal Processing and Control 85, 105067, 2023.

Y Salekzamani, NA Fakhree, A Ebrahimi, H Heravi, N Dolatkhah, "Motorized Leg Length Discrepancy Measure: A New Device for Clinical Use-A Cross-sectional Study.", Crescent Journal of Medical & Biological Sciences 9 (3), 2022.

Majid Fathpour, Afshin Ebrahimi, Aliyeh Ghamkhari, Ali Shahbazi, Elmira Abbasi, "Comparison of Modeling and Optimization of Methanol to Propylene (MTP) Over High Silica H-ZSM-5 NANO Catalyst Using Black-Box Modeling (ANN) and Meta-heuristic Optimizers (GA-PSO)", Iranian Journal of Science and Technology, Transactions of Civil Engineering, vol. 46, no. 3, pp. 2439-2448, 2022.

SAMAN NIKZAD, AFSHIN EBRAHIMI, "Two person interaction recognition based on a dual-coded modifiedmetacognitive (DCMMC) extreme learning machine", Turkish Journal of Electrical Engineering and Computer Sciences, vol. 30, no. 4, pp. 1621-1636, 2022.

Razieh Eskandari, Afshin Ebrahimi, Hasan Faraji Baghtash, "A wideband balun-LNA employing symmetrical CCC technique and balanced outputs", IET Circuits, Devices & Systems, vol. 15, no. 4, pp.330-339, 2021.

R Eskandari, A Ebrahimi, HF Baghtash, "An area-efficient broadband balun-LNA-mixer front-end for multi-standard receivers", Tabriz journal of electrical engineering, vol. 51, Issue 1, pp:11-17, 2021.

R Eskandari, A Ebrahimi, HF Baghtash, "A wideband balun-LNA employing symmetrical CCC technique and balanced outputs", IET Circuits, Devices & Systems, Vol. 15, Issue 4, pp:330-339, 2021.

Y Salekzamani, N A Fakhree, M Azimpouran, A Ebrahimi, H Heravi, N Dolatkhah, "The reliability and validity of body Vision system for assessing posture", Journal of Research in Clinical Medicine, vol. 9, Issue 1(3), 2021.

H Heravi, R Aghaeifard, AR Jounghani, A Ebrahimi, M Delgarmi, "EXTRACTING FEATURES OF THE HUMAN FACE FROM RGB-D IMAGES TO PLAN FACIAL SURGERIES", Biomedical Engineering: Applications, Basis and CommunicationsVol. 32, No. 06, 2050042, 2020.

R Eskandari, A Ebrahimi, HF Baghtash, "A wideband low power merged balance-balun-LNA and I/Q-mixer" Microelectronics Journal, vol. 107, 104945, 2021.

H Heravi, A Ebrahimi, S Nikzad, E Olyaee, Y Salek Zamani; "Low Price Foot Pressure Distribution Screening Technique: Optical Podoscope with Accurate Foot Print Segmentation using Hidden Markov Random Field Model", Journal of Biomedical Physics & Engineering, vol. 10, no. 4, pp. 523-536, 2020, DOI: 10.31661/JBPE.VOI0.618.

R Eskandari, A Ebrahimi, HF Baghtash, "Low power balanced balun LNA employing double noise-canceling techniques", ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING, DOI: 10.1007/s10470-020-01690-1.

O Abbasi, H Yanikomeroglu, A Ebrahimi, N Mokari, "Trajectory Design and Power Allocation for Drone-Assisted NR-V2X Network with Dynamic NOMA/OMA", IEEE Transactions on Wireless Communications, DOI: 10.1109/TWC.2020.3008568.

FD Yeganeh, A Ebrahimi, "Dynamic spectrum refarming for GERAN/EUTRAN considering GERAN voice traffic", Telecommunication Systems, vol. 73, no. 4, pp. 507-520, 2020.

- P Ghaderyan, A Abbasi, A Ebrahimi, "Time-varying singular value decomposition analysis of electrodermal activity: a novel method of cognitive load estimation", Measurement, vol. 126, pp. 102-109, 2018.
- A. Aghajani, R. Kazemzadeh, A. Ebrahimi, "Liu's Uncertainty Theory-Based Offering Strategy for Wind Power Producers in Special Conditions in the Electricity Market", IEEE systems journal, Vol. 13, Issue 4, pp. 4219-4226, 2019(ISI).
- O. Abbasi, Afshin Ebrahimi, N. Mokari, "NOMA Inspired Cooperative Relaying System Using an AF Relay", IEEE Wireless Comminications Letters, vol. 8, Issue 1, pp. 261-264, 2019(ISI).
- O. Abbasi, Afshin Ebrahimi, "Cooperative NOMA with Full-Duplex Amplify-and-Forward Relaying", Transactions on Emerging Telecommunications Technologies, vol. 29, Issue 7, 2018, https://doi.org/10.1002/ett.3421(ISI).
- R. Eskandari Choobtarash, A. Ebrahimi, J. Sobhi, "A wideband noise cancelling balun LNA employing current reuse technique", Microelectronics Journal, Volume 76, June 2018, Pages 1-7(ISI).
- A. Aghajani, R. Kazemzadeh, A. Ebrahimi, "Optimal energy storage sizing and offering strategy for the presence of wind power plant with energy storage in the electricity market", International Transactions on Electrical Energy Systems, vol. 28, Issue 11, 2018, https://doi.org/10.1002/etep.2621(ISI).
- A. Aghajani, R. Kazemzadeh, A. Ebrahimi, "Short-term prediction of market-clearing price of electricity in the presence of wind power plants by a hybrid intelligent system", Accepted for publication in Neural Computing and Applications, pp. 1-13, 2018, https://doi.org/10.1007/s00521-018-3544-8(ISI).
- S.H. Hosseini, M.G. Shayesteh, A. Ebrahimi, "Adaptive sparse system identification in compressed space", Wireless Personal Communications, vol. 96, no. 1, pp. 925-937, 2017(ISI).
- F. Danaei Yeganeh, A. Ebrahimi, "Management of cell re-selection in 3GPP cellular networks and analysis of two challenges of an Iranian Operator", Tabriz Journal of Electrical Engineering, vol. 46, Issue 3, pp. 161-179, autumn 2016(In Farsi).
- H. Heravi, A. Ebrahimi, E. Olyaee, "Detecting Gait Phases from RGB-D Images Based on Hidden Markov Model", Journal of Medical Signals and Sensors, vol. 6. No. 3, pp. 158-165, Jul-Sep. 2016(ISI).
- A. Aghajani, R. Kazemzadeh, A. Ebrahimi, "A novel hybrid approach for predicting wind farm power production based on wavelet transform, hybrid neural networks and imperialist competitive algorithm", Energy Conversion and Management, vol. 121, pp. 232-240, 2016(ISI).

- S.K. Bakhshmand, R.K. Saray, K. Bahlouli, H. Eftekhari, A. Ebrahimi, "Exergoeconomic analysis and optimization of a triple-pressure combined cycle plant using evolutionary algorithm", Energy, vol. 93, pp. 555-567, 2015(ISI).
- M. Baghelani, H. Badri Ghavifekr, A. Ebrahimi; "Crossed ring anchored disk resonator for self-alignment of the anchor", Journal of Advanced Research, Volume 5, Issue 1, pp. 109–115, 2014.
- M. Baghelani, A. Ebrahimi, H. Badri Ghavifekr; "Design of RF MEMS Based Oscillatory Neural Network for Ultra High Speed Associative Memories", Neural Processing Letters, Volume 40, Issue 1, pp. 93-102, 2014(ISI).
- M. Baghelani, A. Ebrahimi, H. Badri Ghavifekr; "Design of a novel MEMS resonator based neuromorphic oscillator", AEU International Journal of Electronics and Communications, Volume 68, Issue 11, pp. 1091–1096, 2014(ISI).
- S. Abbasi, A. Abbasi, Y. Sarbaz, A. Ebrahimi, "Analysis spectrum of normal and ataxia Purkinje cell output and classification using artificial neural network", Journal of neuropsychiatry and clinical neurosciences, vol. 26. No. 4, E14-E14, 2014(ISI).
- M. Baghelani, H. Badri Ghavifekr, A. Ebrahimi; "Precise analytical evaluation of the ring shape anchored contour mode disk resonator for constructing a low noise UHF Pierce oscillator", Microsystem Technologies, Volume 19, Issue 7, pp. 1087-1095, 2013 (ISI).
- M. Baghelani, H. Badri Ghavifekr, A. Ebrahimi; "MEMS based oscillator for UHF applications with automatic amplitude control", Microelectronics Journal, Volume 44, Issue 4, pp. 292-300, 2013(ISI).
- S. Nasrollahi, A. Ebrahimi; "Printed Persian Subword Recognition Using Wavelet Packet Descriptors", Journal of Engineering, Volume 2013, Article ID 465469, 11 pages, 2013.
- M. Baghelani, H. Badri Ghavifekr, A. Ebrahimi; "A new approach for design of low velocity coupling for the ring shape anchored contour mode disk resonators", Microsystem Technologies, Volume 18, Issue 12, December 2012 (ISI)
- M. Baghelani, H. Badri Ghavifekr, A. Ebrahimi; "A Novel Tuning Method for Repeatability Problem Solving of RF MEMS Disk Resonators", Sensors and Transducers, Volume 147, Issue 12, December 2012.
- M. Baghelani, H. Badri Ghavifekr, A. Ebrahimi, "Analysis and Suppression of Spurious Modes of the Ring Shape Anchored RF MEMS Contour Mode Disk Resonator", Microsystem Technologies, vol. 17, pp. 1599-1609, 2011 (ISI).

- V. Mahboubi, M. Khoddam, H. Badri, A. Ebrahimi, "Development of an Inertial Measurement System for Electronic Stability Control Applications", International Review on Modelling and Simulations (I.RE.MO.S.), Vol. 4, no. 6, December 2011.
- A. Ebrahimi, E. Kabir, "A Pictorial Dictionary for Printed Farsi Subwords", Pattern Recognition Letters, vol. 29, pp. 656-663, 2008 (ISI).
- A. Ebrahimi, E. Kabir, "Clustering of printed Farsi subwords using characteristic loci features and k-means algorithm", Journal of Faculty Engineering, University of Tabriz, vol. 33, Issue 1, pp. 1-11, 2006(In Farsi).
- A. Ebrahimi, E. Kabir, "A Two Step Method for the Recognition of Printed Farsi Subwords", Iranian Journal of Electrical and Computer Engineering, vol. 2, no. 2, pp.57-62, 2005(In Farsi).

Conference papers:

- [1] A. Ebrahimi, H. S. Yazdi, E. Kabir, "Printed Farsi Text Extraction From Color Images", Proc. of 10th Iranian Conf. on Electrical Engineering, May 2002, Tabriz Univ., IRAN(In Farsi).
- [2] A. Ebrahimi, A. Sharafat, "Color Reduction and Segmentation in Color Images by Kohonen NN and Clustering in Output Layer", Proc. of 11th Iranian Conf. on Electrical Engineering, May 2003, Shiraz Univ., IRAN(In Farsi).
- [3] A. Ebrahimi, E. Kabir, C. Lucas, "Feature Selection Using Genetic Algorithm for FCM Clustering of Farsi Fonts", Proc. of First International Conf. on Information and Knowledge Technology (IKT2003), 2003, Amirkabir University of Technology, Tehran, IRAN (In Farsi).
- [4] H. Nezanabadipour, S. Saryazdi, A. Ebrahimi, "Farsi Fonts Recognition Based on Gabor Filters", Proc. of 9th Annual Computer Society of Iran Computer Conference(CSICC2004), ITRC, 2004(In Farsi).
- [5] A. Ebrahimi, E. Kabir, "Using a Two Step Method for the Classification of Printed Farsi Subwords", Proc. of 6th Conference on Intelligent Systems (CIS2004), Nov. 2004, University of Kerman, Kerman, IRAN(In Farsi).
- [6] A. Ebrahimi, E. Kabir, "Image Retrieval of Official Letters Using Shape of Subwords", Proc. of 3rd Conference on Machine Vision, Image Processing & Applications (MVIP2005), vol. 1, pp. 24-29, Feb. 2005, Tehran, IRAN (In Farsi).
- [7] A. Ebrahimi, E. Kabir, "Layout Analysis of Official Letters", Proc. of 10th Annual Computer Society of Iran Computer Conference(CSICC2005), vol. 2, pp. 132-141, ITRC, 2005(In Farsi).

- [8] A. Ebrahimi, E. Kabir, "A pictorial dictionary for printed Farsi subwords", Proc. of 11th Annual Computer Society of Iran Computer Conference(CSICC2006), vol. 1, pp. 911-915, IPM, Tehran, IRAN, 2006(In Farsi).
- [9] A. Ebrahimi, E. Kabir, "Recognition of printed Farsi subwords", Proc. of 11th Annual Computer Society of Iran Computer Conference(CSICC2006), vol. 1, pp. 594-600, IPM, Tehran, IRAN, 2006(In Farsi).
- [10] S. Kamel, A. Ebrahimi, "Color reduction using neural network", 3rd International conference on knowledge and information technology (IKT2006), 2006(In Farsi).
- [11] N. Rabbani, M.H. Sedaaghi, A. Ebrahimi, "A new approach to reduce the training time in speaker recognition using SVM", 16th. Iranian Conference on Electrical Engineering (ICEE2008), May 2008(In Farsi).
- [12] S.Alijanpour Shalmani, H. Ebrahimnezhad, A. Ebrahimi, "Hand gesture recognition by combining active finger, differential area and hough transform", 17th. Iranian Conference on Electrical Engineering (ICEE2009), May 2009(In Farsi).
- [13] M. Boroumand, A. Ebrahimi, "A comparative scheme in digital image watermarking using discrete wavelet transform", 5th Machine vision and image processing conference, MVIP2008, Tabriz, Iran, 2008 (In Farsi).
- [14] S. Kamel, H. Ebrahimnezhad, A. Ebrahimi, "Removing fixed objects from video images and retrieving background images and moving objects" 5th Machine vision and image processing conference, MVIP2008, Tabriz, Iran, 2008 (In Farsi).
- [15] S. Ghalamifard, H. Ebrahimnezhad, A. Ebrahimi, "Edge retrieval in noisy images by optimizing image histogram", 5th Machine vision and image processing conference, MVIP2008, Tabriz, Iran, 2008 (In Farsi).
- [16] M. Boroumand, A. Ebrahimi, "An Improved Quantization Based Watermarking Scheme Using Local Entropy in Wavelet Domain", IEEE International Conference on Signal and Image Processing Applications, Malaysia, Nov. 18-19, 2009.
- [17] S. Jalali, H. Badri, A. Ebrahimi, "Investigation of fracture mechanical properties of materials using digital image corerelation", 6th Machine vision and image processing conference, MVIP2009,Isfahan, Iran, 2009.
- [18] A.H. Foroutan, A. Ebrahimi, "Logo recognition in engineering maps", 6th Machine vision and image processing conference, MVIP2009, Isfahan, Iran, 2009(In Farsi).
- [19] A.H. Foroutan, A. Ebrahimi, "Size invariant handwritten and printed character recognition", 6th Machine vision and image processing conference, MVIP2009, Isfahan, Iran, 2009 (In Farsi).

- [20] M. Baghelani, J. Karami, A. Ebrahimi, "A novel mapping for fingerprint image enhancement", ", 6th Machine vision and image processing conference, MVIP2009, Isfahan, Iran, 2009.
- [21] J.Karami, A. Ebrahimi, M.S. Khatibi, E. Fatehifar, "Modeling and simulation of a bio hybrid reactor by artificial neural networks to omit Acrylonitrile and Styrene concurrently from industrial sewage", The 13th Iranian national chemical engineering congress & 1st international regional chemical and petroleum engineering conference, 2010.
- [22] G. Tabatabae Shourrije, A. Ebrahimi, J. Abbaszadeh Bargoshadi, "Farsi document image skew detection and correction", ICCCE2010, Malaysia, 2010.
- [23] F. Fathi, A. Ebrahimi, Sepideh Ebrahimi, "Special character recognition for printed Farsi subwords", ICCCE2010, Malaysia, 2010.
- [24] H. Haddadian, A. Ebrahimi, "Contour recognition of UGC maps", ICCCE2010, Malaysia, 2010.
- [25] H. Behin, A. Ebrahimi, S. Ebrahimi, "Incorporated preprocessing and physical layout analysis of a binary document image using a two stage classification", ICCCE2010, Malaysia, 2010.
- [26] F. Shoeibi, A. Ebrahimi, H. Badri Ghavifekr, "Structural damage detection in pipeline using Lamp waves and Wavelet transform", ICGIP2010, Philippine, 2010.
- [27] D. Khani, A. Ebrahimi, "Analysis of transient stability of a power system by probabilistic neural network", PSC2009, Iran. 2009(In Farsi).
- [28] N. Alijanpour, H. Ebrahimnezhad, A. Ebrahimi, "Inner distance based hand gesture recognition for devices control", Innovations 2008 IEEE conference, UAE, 2008.
- [29] N. Alijanpour, H. Ebrahimnezhad, A. Ebrahimi, "Hand gesture recognition by combining geometrical and conceptual features for use in wheelchair automation", 15th Iranian Conference on Biomedical Engineering, Iran, 2008.
- [30] Saeed Kamel, Hossein Ebrahimnezhad, A. Ebrahimi, "Moving object removal in video sequence and background restoration using Kalman filter", 2008 International Symposium on Telecommunications, Iran, 2008.
- [31] S. Nasrollahi, A. Ebrahimi, "Feature Extraction from Printed Farsi subword using Symlet 8 wavelet packet transform", 16th Annual Conference of Computer Society of Iran, ICCE2010, Iran 2010(In Farsi).

- [32] S. Nasrollahi, A. Ebrahimi, "Wavelet transform for skew angle detection in printed Persian documents", Third International Conference on Digital Image Processing, China, 2011.
- [33] S. Nasrollahi, A. Ebrahimi, "Feature extraction from printed Persian subwords using Haar wavelet transform", Third International Conference on Digital Image Processing, China, 2011.
- [34] H. Heravi, A. Ebrahimi, "Increasing the accuracy of automatic object segmentation in RGB-D images", ICS12, 1392(in Farsi).
- [35] M. Hafez Qoran, A. Ebrahimi, "A database for additive text in video frames", IVMVIP08, 1392(in Farsi).
- [36] M. Hajisalem, A. Ebrahimi, A. Daei Sorkhabi, "Persian sign language character recognition using fusion of Radon transformation and distance from contour features", ICS12, 1392(in Farsi).
- [37] M. Hafez Qoran, A. Ebrahimi, "Persian additive text location in video frames", ICS12, 1392(in Farsi).
- [38] M. Bakhshali, M. Shamsi, A. Ebrahimi, "Face skin image partitioning using SOM neural network for use in evaluation of face cosmetic surgery systems", First national Electrical engineering conference, Isfahan, Iran, 2012(in Farsi).
- [39] H. Eftekhari, R. Khoshbakhti, A. Ebrahimi, "Economic Exergy Analysis and Optimization of Hybrid Cycle Power Plant by Genetic Algorithm", 2nd International conference on new approaches in energy conservation, 2012(in Farsi).
- [40] Z. Parsaei, A. Ebrahimi, "A method for online handwritten Farsi character recognition", 7th MVIP, 2011(in Farsi).
- [41] S. Nasrollahi, A. Ebrahimi, "Farsi printed sub-word feature extraction by wavelet transform-symlet 8", 16th annual *International CSI Computer Conference*, 2010(in Farsi).
- [42] A. Hajian, A. Ebrahimi, F. Danaei Yeganeh, "Design and simulation of a non-homogenous model of 4g cellular networks and application of energy management idea for energy efficiency improvement", International Electrical Engineering Conference, 2015(in Farsi).
- [43] F. Jalali, A. Ebrahimi, "A novel mixed approach for detecting overlap in document images", Iranian Conference on Electrical Engineering (ICEE2017), 2017.
- [44] F. Jalali, A. Ebrahimi, S. Alirezazadeh, "Optimizing text detachment from the document image using block-based segmentation and wavelet transform", IEEE 4th International Conference on Knowledge-Based Engineering and Innovation (KBEI), 2017.

- [45] O. Abbasi, A. Ebrahimi, "Secrecy analysis of a NOMA system with Full Duplex and Half Duplex Relay", Iran Workshop on Communication and Information Theory (IWCIT), 2017.
- [46] S. H. Hosseini, T. Nouri, A. Ebrahimi, S. A. Hosseini, "Simulated Tornado Optimization", 2nd International Conference of Signal Processing and Intelligent Systems (ICSPIS), 2016.
- [47] Sh. Najdi, A. Ebrahimi, "Audio Fingerprinting Based on Multi-Resolution Analysis of Discrete Wavelet Transform", 10th International ISC Conference on Information Security and Cryptology (ISCISC), 2013.
- [48] A. Biniaz, A. Abbasi, A. Ebrahimi," Fuzzy c-means clustering based on Gaussian spatial information for brain MR image segmentation", 19th Iranian Conference of Biomedical Engineering (ICBME), 2012.
- [49] R. Ajabi Farshbaf, M. R. Azizian, A. Ebrahimi, "NN-MRAS based speed estimator vs. RF-MRAS one: design and comparison", 3rd Power Electronics, Drive Systems & Technologies Conference (PEDSTC2012), 2012.
- [50] P. Farmanzadeh, M. R. Azizian, A. Ebrahimi, "A robust controller design to stabilize induction motor drive operation using (IFOC) method", PEDSTSC2012, 2012.
- [51] N. Forouzanfar, H. Ebrahimnezhad, A. Ebrahimi, "Dynamic Texture Segmentation Using Linear Predictive Coding", Iranian MVIP2011, 2011.
- [52] S. Jalali, H. Badri Ghavifekr, A. Ebrahimi, "Usage of digital speckle correlation method by determining fracture properties of PMMA bone cement for clinical application", ICBME2010, 2010.
- [53] O. Abbasi, A. Ebrahimi, "Secrecy analysis of a NOMA system with Full Duplex and Half Duplex Relay", 2017 Iran Workshop on Communication and Information Theory (IWCIT), 3-4 May 2017, Tehran, Iran.
- [54] O Abbasi, H Yanikomeroglu, A Ebrahimi, N Mokari, M Alzenad, "Dynamic NOMA/OMA for V2X Networks with UAV Relaying", 2020 IEEE 92nd Vehicular Technology Conference (VTC2020-Fall), Victoria, BC, Canada.

Patents:

- Online handwritten number recognition on touch screen mobile phones.
- Online handwritten character recognition on touch screen mobile phones.
- Foot imaging and postural analysis in static and moving positions

Books:

- "Encyclopedia of Farsi OCR (Two chapters)", Ministry of Science, Research and Technology,
 2008.
- "Wireless Radio-Frequency Standards and System Design: Advanced Techniques (One Chapter)", IGI Global, 2012.

MSc theses:

- 1- Mehdi Boroumand, "Introducing an optimized digital image watermarking method in discrete wavelet domain", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2006-2007.
- 2- Navid Rabbani, "Speaker Identification using speech signal", supervisor(s): M.H. Sedaaghi, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2006-2007.
- 3- Hamed Ranjzad, "Iris Segmentation using RANSAC based method for identification", supervisor(s): H. Ebrahimnezhad, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2007-2008.
- 4- Nasibeh Alijanpour, "Hand gesture and movement recognition", supervisor(s): H. Ebrahimnezhad, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2007-2008.
- 5- Siavash Ghalamifard, "Online handwriting recognition on mobile phones", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2007-2008.
- 6- Saeed Kamel, "Video frames completion and unwanted objects removal using background retrieval", supervisor(s): H. Ebrahimnezhad, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2007-2008.
- 7- Faeghe Fathi, "Extraction of Special characters from Farsi printed subwords and words", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2008-2009.
- 8- Hamed Behin, "Document image analysis for text region extraction", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2008-2009.
- 9- Hossein Haddadian, "Contour recognition of UGC maps", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2008-2009.
- 10-Gholamreza Tabatabaei, "Preprocessing and skew correction in text document images", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2008-2009.
- 11-Amir Hossein Foroutan, "Number and logo recognition in engineering maps", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.
- 12-Sajjad Jalali, "Deformation parameter analysis using digital image correlation", supervisor(s): H. Badri Ghavifekr, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.
- 13-Fatemeh Shoeibi, "Health monitoring in petroleum pipe lines", supervisor(s): A. Ebrahimi, H. Badri Ghavifekr, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.

- 14-Samad Ghanbari, "Feature extraction and clustering of printed Farsi subwords for search domain reduction in recognition", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.
- 15-Jafar Karami, "Simulation and modeling of a hybrid biological reactor by artificial neural networks", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.
- 16-Marsyeh Golmohamadi, "Damage detection algorithms ion structural health monitoring", supervisor(s): A. Ebrahimi, H. Badri Ghavifekr, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.
- 17-Samira Nasrollahi, "Printed Farsi subword shape modeling using wavelet descriptors", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.
- 18-Vahab Mahboubi Morad, "Design and calibration of sensory units of an automobile dynamic control system", supervisor(s): H. Badri Ghavifekr, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.
- 19-Masoud Seifaei, "Speech keyword spotting within a small vocabulary", supervisor(s): E. Najafi Aghdam, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2009-2010.
- 20-Mina Hafez Qoran, "Detection and location of additive text in video frames", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2010-2011.
- 21-Mohamad Rousta, "Detecting Parkinson's Disease from online handwriting", supervisor(s): A. Ebrahimi, A. Abbasi, Dept. of Electrical Eng., Sahand University of Technology, 2010-2011.
- 22-Mohamad Ali Esfandiari, "Automatic detection of abnormal behavior in a closed environment", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2011-2012.
- 23-Soltan Khosh khahesh, "Optical Character Recognition (OCR) for high quality Farsi text images", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2011-2012.
- 24-Hamed Heravi. "Design of a system for gait feature extraction using Microsoft Kinect", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2011-2012.
- 25-Mohamad Sadegh Ghaffarzadeh, "Design, simulation and construction of a water meter reading system ...", supervisor(s): E. Najafi Aghdam, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2011-2012.

- 26-Roghayeh Aghaeifard, "Human face feature extraction from RGB-D images", supervisor(s): M. Shamsi, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2011-2012.
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- 34-Parisa Pahloosay, "Single object tracking using deep learning", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2019-2020.
- 35-Zahra Salahshoori Nezhad, "Object trajectory estimation in the images using deep neural networks", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2019-2020.
- 36-Abdollah Shahrezaei, "ESTIMATION OF OPTICAL FLOW WITH DEEP NEURAL NETWORKS IN THE IMAGES", supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2019-2020.

PhD theses:

1- Masoud Baghelani, "Design and modeling of a dynamical neuron based on MEMS resonators", Supervisor(s): A. Ebrahimi, H. Badri Ghavifekr, Dept. of Electrical Eng., Sahand University of Technology, 2009-2013.

- 2- Afshin Aghajani Toularood, "Presence of Wind Power in the Competitive Electricity Market Based on Forecasting of Wind Power and Price", Supervisor(s): R. Kazemzadeh, A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2013-2018.
- 3- Farhad Danaei Yeganeh, "Dynamic spectral allocation to radio access technologies in GSM and LTE cellular networks", Supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, 2013-2019.
- 4- Omid Abbasi, "Performance analysis and optimization in cooperative non-orthogonal multiple access systems using aerial relaying", Supervisor(s): A. Ebrahimi, Dept. of Electrical Eng., Sahand University of Technology, Advisor(s): N. Mokari, Tarbiat Modares University, 2015-2020.
- 5- Razieh Eskandari Chobtarash, "design of front-end RF receiver with power consumption less than 20 mW in IEEE 802.11 b/g/n standards using 0.18 μm CMOS process", Supervisor(s): A. Ebrahimi, Advisor(s): J. Sobhi, H.F. Baghtash, Dept. of Electrical Eng., Sahand University of Technology, 2015-2020.