

CONTACT INFORMATION

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Sex Male | Date of birth Septemebr,13,1975 | Nationality Iranian | Position Title Associate Professor of Biomedical Engineering

SELECTED POSITIONS & EMPLOYMENT

- 2007-2009 Director of Students' Scientific Associations.
- 2008-2011 Head of Biomedical Engineering Department.
- 2010-Present CEO & Product Manager of Knowledge-Based Company "Kavoshgarane Tebe Kharazmi" (www.kvteb.com | www.kvteb.ir).
- 2011-2012 Director of Central Library and Documentation Centre.
- 2012-2014 Director of the Office of University-Industry and University-Society Relations
- 2007-2016 Assistant Professor of Biomedical Engineering, University of Isfahan, IRAN
- 2016-Present Associate Professor of Biomedical Engineering, University of Isfahan, IRAN
- 2006-Present Foundation Board Member of Ragheb Isfahani non-Governmental & non-Profit Institute of Higher Education
- 2006-2010 & 2018-Present Vice Chancellor for Financial and Administrative Affairs of Ragheb Isfahani non-Governmental & non-Profit Institute of Higher Education
- 2016-Present Member of Admission Committee of Technology Development Center, University of Isfahan, IRAN

EDUCATION

- 2000-2006 **Ph.D.**
Biomedical Engineering, Amirkabir University of Technology, Tehran, IRAN
 - Thesis Title: Development of Neural Networks for Optimization of Linguistic-Lexical Knowledge with Acoustic-Phonetic Information in Speech Recognition Systems. Degree of Defence: Great.
 - Supervisor: Dr Seyed Ali Seyedsalehi
 - Advisor professors: Dr Farshad Almasganj, Dr Mahmood Bijankhan
 - GPA: 18.51

- Verbally GPA: 18.35
- Written GPA: 17.75
- Total GPA: 17.95

1997-1999 M.Sc.

Biomedical Engineering, Amirkabir University of Technology, Tehran, IRAN

- Thesis Title: Qualitative and Quantitative Modelling of Handwritten Motor Patterns in Healthy Individuals Considering the Effect of Learning and the phenomenon of Redundancy. Degree of Defence: Great.
- Supervisor: Prof. Seyed Mohammadreza Hashemi Golpayegani
- Advisor professors: Dr Ali Fallah
- GPA: 19.29

1993-1997 B.Sc.

Electrical Engineering, Isfahan University of Technology, Isfahan, IRAN

- Thesis Title: Design and Manufacturing of FM Receiver and Transmitter. Degree of Defence: Great.
- Supervisor: Dr Mohammadreza Ashouri
- GPA: 17.49

1989-1993 High School

Maths and Physics Diploma, Mofatteh High School, Isfahan, IRAN.

AWARDS

- 1993 • Rank 143 of national entrance examination of universities and higher education institutions of the country in 1993.
- 1996-1997 • Third best grade of electronics undergraduate degree from the graduates of the academic year.
- 1997-1999 • First grade of bioelectrics master's degree among graduates of the academic year.
- 1997-1999 • First rank of Amirkabir University of Technology graduates in the academic year.
- 2000 • First rank of the entrance exam of the biomedical Ph.D. of Amirkabir University of Technology.
- 2001 • The scholarship of Iranian Research Organization for Science and Technology.
- 2002 • The scholarship in University of Isfahan.
- 2011 • The best Head of Department in the year.
- 2012 • The high-ranking technologist of the province during the 8th festival and exhibition of research achievements and technology in Isfahan province.

- 2012 · Major researcher of Biomedical Engineering Department, University of Isfahan.
- 2012 · Selected Project of Isfahan Province and University of Isfahan in the 2nd National Science Festival and Exhibition until the "Achievements of Technology and Commercialization in the National Areas" entitled "Designing and Manufacturing a ECG Holter Monitor Device".

GRADUATE THESIS

- 2012 Supervisor: **Mohammadreza Yazdchi**, Amin Mahnam, Advisor: Hamidreza Marateb, Researcher: Elnaz Ilbeigi, "Automatic affective state recognition based on facial expressions and physiological changes", M.Sc. thesis, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2012 Supervisor: **Mohammadreza Yazdchi**, Advisor: Prof. Peyman Moallem, Researcher: Maryam Basij, "Automatic Shadow Detection and Analysis for enhancement in IVUS images", M.Sc. thesis, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2012 Supervisor: **Mohammadreza Yazdchi**, Advisor: Dr Majid Mohammadbeigi, Researcher: Amirhossein Keivanpour, "Real-time recognition of artifact and arrhythmias of Electrocardiogram for implementation on portable medical equipment", M.Sc. thesis, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2012 Supervisor: **Mohammadreza Yazdchi**, Advisor: Dr Mehran Emadi Andani, Researcher: Behrooz Modjarradshafiei, "Automatic affective state recognition based on physiological changes", M.Sc. thesis, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2013 Supervisor: Dr Amin Mahnam, **Mohammadreza Yazdchi**, Researcher: Arezoo Karimizadeh, " Investigation of the relationship between brain structure and perfectionism using voxel-based morphometry on Magnetic Resonance Images ",

M.Sc. thesis, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2012 Supervisor: Dr Alireza Karimian, Advisor: **Mohammadreza Yazdchi**, Researcher: Mohsen Safdari, " Metal artifact reduction in CT images by Image processing techniques and comparing them with experimental results". M.Sc. thesis, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2013 Supervisor: Dr Parvin Nasiri, Advisor: Dr Mohammadreza Monazzam, **Mohammadreza Yazdchi**, Researcher: Farhad Forouharmajd, "Optimization of low frequency noise and vibration control by active and passive methods in the air duct", Ph. D. thesis, Tehran University of Medical Sciences, School of Public Health, Department of Occupational Health Engineering.

- 2013 Supervisor: Dr Rasool Amirfattahi, **Mohammadreza Yazdchi**, Researcher: Behnam Nasr, "Diagnosis of plaque in IVUS images", M.Sc. thesis, Isfahan University of Technology, Faculty of Electrical and Computer Engineering.
- 2013 Supervisor **Mohammadreza Yazdchi**, Advisor: Dr Majid Ghoshouni-Dr Peyman Hashemian, Researcher: Mahboubeh Parastar Feizabadi, "The Effect of neurofeedback on dysgraphia of children with learning disabilities", M.Sc. thesis, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2013 • Supervisor: **Mohammadreza Yazdchi**, Advisor: Dr Mehdi Niroomand, Researcher: Erfan Naghsh, "Designing and manufacturing of an automated external cardiac defibrillator with the possibility of diagnosing on-line ventricular fibrillation", Master's thesis, Biomedical Engineering, Bioelectric orientation, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2014 • Supervisor: **Mohammadreza Yazdchi**, Researcher: Zohreh Deris Abdollahpour, "Diagnosis of Cardiac Ischemia by Extracting the Features of the ST and T wave", Master's Degree in Biomedical Engineering, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- 2014 • Supervisor: **Mohammadreza Yazdchi**, Dr Hamidreza Marateb, Advisor: Dr Majid Ghasemi, Researcher: Akbar Pashaei, "Designing and manufacturing of an EMG / NCV surface recording device for the feasibility of diagnosis of myopathy & neuropathy", Master's thesis of medical engineering, Bioelectricity, Isfahan University, Faculty Engineering, Department of Medical Engineering.
- 2015 • Supervisor: **Mohammadreza Yazdchi**, Researcher: Soroush Nematolahi, "Designing and manufacturing of high frequency electrosurgical device with intelligent power control", Master's thesis of medical engineering, Bioelectricity, Isfahan University, Faculty Engineering, Department of Medical Engineering.
- 2015 • Supervisor: **Mohammadreza Yazdchi**, Advisor: Dr Mansour Vali Researcher: Adib Sadri, "Acoustical analysis of infant cry in order to assessment of the reason", Master's thesis, Biomedical Engineering, Isfahan University of Technology, Faculty of Engineering, Department of Biomedical Engineering.
- 2015 • Supervisor: Dr Iraj Jabari, **Mohammadreza Yazdchi**, Advisor: Dr Alireza Khosravi Researcher: Mahsa Naghieh, "Virtual Tissue Extraction Based on Intravenous Ultrasound Image Processing (IVUS)", Master's Degree in Nuclear Engineering, University of Isfahan, Faculty of Science and Technology, Department of Nuclear Engineering.
- 2016 • Supervisor: **Mohammadreza Yazdchi**, Researcher: Seyyed Mohsen Anvari, "Designing and manufacturing laboratory sample of non-invasive arterial blood pressure measuring device without using cuff", Master's thesis of Biomedical engineering, Bioelectricity orientation, University of Isfahan, Faculty Engineering, Department of Biomedical Engineering.
- 2016

Supervisor: **Mohammadreza Yazdchi**, Advisor: Mohammad Ali Babaei, Researcher: Mohammadsadegh Nazemi, "Automatic diagnosis of cardiac arrhythmias using heart sounds", Master's thesis in Biomedical engineering, Bioelectric trend, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.

2017

Supervisor: Amin Mahnam, **Mohammadreza Yazdchi**, Researcher: Fatemeh Qomi, "Development of a brain-computer system based on imaginative motion with least electrodes", Master's thesis, Biomedical Engineering, Isfahan University of Technology, Faculty of Engineering, Department of Biomedical Engineering.

2018

- Supervisor: **Mohammadreza Yazdchi**, Amin Mahnam, Researcher: Mahshad Javidan, "Positive Emotion Recognition Using the EEG with Minimum Number of Electrodes", Master's Degree in Biomedical Engineering, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.

2018

- Supervisor: **Mohammadreza Yazdchi**, Amin Mahnam, Researcher: Maryam Zangeneh, "Optimizing the electrodes for the realization of Brain-Computer-Interfaces based on SSVEP". Master's Degree in Biomedical Engineering, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.

2019

- Supervisor: **Mohammadreza Yazdchi**, Aghileh Heidari, Advisor: Mohsen Foroughipour, Researcher: Monireh Khayyamnia, "Optimal diagnosis from several diseases with almost identical symptoms and common headache using soft computations and intelligent systems", Degree of Doctor of Science in Applied Mathematical Sciences, Payame Noor University of Tehran Mathematics Department.

2020

- Supervisor: **Mohammadreza Yazdchi**, Researcher: Sahar Karimian, "Design and construction of optimized module for non-invasive measuring arterial blood pressure with cuff", Master's thesis of Biomedical engineering, Bioelectricity orientation, University of Isfahan, Faculty Engineering, Department of Biomedical Engineering.

2020

- Supervisor: **Mohammadreza Yazdchi**, Researcher: Mohammad Aghasian, "Prediction of fatal arrhythmias for use in implantable cardioverter defibrillators using electrocardiogram signal", Master's thesis of Biomedical engineering, Bioelectricity orientation, University of Isfahan, Faculty Engineering, Department of Biomedical Engineering.

- Supervisor: Javad Rasti, **Mohammadreza Yazdchi**, Researcher: Sheidasadat Hashemi, "Investigating the effect of visual stimulation methods on the function of human mirror neuron system, case study: learning movement", Master's thesis of Biomedical engineering, Bioelectricity orientation, University of Isfahan, Faculty Engineering, Department of Biomedical Engineering.

- Supervisor: **Mohammadreza Yazdchi**, Amin Mahnam, Researcher: Afsaneh Babaei, "Optimizing the electrodes for the realization of Brain-Computer-Interfaces based on SSVEP". Master's Degree in Biomedical Engineering, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.

- Supervisor: **Mohammadreza Yazdchi**, Researcher: Mojtaba Zندهali, "Optimization and Improvement of ECG Denoising Filters, QRS, and Pace Detection Algorithms on FPGA". Master's Degree in Biomedical Engineering, University of Isfahan, Faculty of

Engineering, Department of Biomedical Engineering.

- Supervisor: **Mohammadreza Yazdchi**, Researcher: Amin Sheikhzadeh Qohnavieh, "Improvement in Detection of Heart Fatal Arrhythmias and Implementation on an ARM-Based Platform". Master's Degree in Biomedical Engineering, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.
- Supervisor: **Mohammadreza Yazdchi**, Javad Rasti Researcher: Masoumeh Sharafi, "Expressed Emotion Recognition in Audio-Visual signals". Master's Degree in Biomedical Engineering, University of Isfahan, Faculty of Engineering, Department of Biomedical Engineering.

PATENTS

- 2015 • **Mohammadreza Yazdchi**, Ghazal Magharezadeh, University of Isfahan, "Billiberine Metering Machine", No. 84671 and on January 3, 2015, the State Registration and Property Registration Office.
- 2015 • **Mohammadreza Yazdchi**, Erfan Roush, Mehdi Nirmomand, Isfahan University, "Automatic External Cardiac Electrocheck (Defibrillator) with the possibility of diagnosing online ventricular fibrillation" to No. 84676 and on January 3, 2015, the State Registration and Property Registration Organization.
- 2018 • **Mohammadreza Yazdchi**, Seyyed Mohsen Anvari, University of Isfahan, "Non-invasive high blood pressure measuring device without using cuff based on ECG and PPG signals", No. 95677 and May 5, 2018, the State Registration and Property Registration Office.

PUBLISHED BOOKS

- 2010 • **Mohammadreza Yazdchi**, Shahrokh Shojaeian, Birjandi's Message, Ali Shahidisandi, Arash Sadeghzadeh, Farhad Faghani, Hamid Molla, "Electrical Books", Volume I / II, Fourth / Third Edition, 2011/2010, Publisher of the Academic Scholars of Branch, ISBN 2-379-798-964-978 / 8-380-798-964-978.
- 2013 • **Mohammadreza Yazdchi**, Javad Rasti, Mojtaba Nezami Hashemi, Saeed Nasrollahi Borujeni, "System Design with AVR Microcontroller", Isfahan University Press, First Edition, Winter 2013, ISBN 9-049-110-600-978.
- 2013 • **Mohammadreza Yazdchi**, Javad Rasti, Mojtaba Nashe Hashemi, Saeed Nasrollahi Borujeni, "System Design with AVR Microcontroller", Isfahan University Press, Second Edition, Summer 2013, ISBN 9-049-110-600-978.
- 2015 • **Mohammadreza Yazdchi**, Javad Rasti, Mojtaba Nashe Hashemi, Saeed Nasrollahi Borujeni, "Designing the system with AVR microcontroller", Isfahan University Press, First Edition, Winter 2015, ISBN 3-096-110-600-978.

REFEREED JOURNALS

- 2022 • Sahar Karimian, **Mohammadreza Yazdchi**, Reza Hajian, "Implementation and

- validation of a novel non-invasive blood pressure measurement algorithm based on oscillometric method with obtaining international hypertension Standards”, Journal of medical signals and sensors.
- 2021 • Mahshad Javidan, **Mohammadreza Yazdchi**, Zahra Baharlouei, Amin Mahnam "Feature and channel selection for designing a regression-based continuous-variable emotion recognition system with two EEG channels." Biomedical Signal Processing and Control 70 (2021): 102979.
- 2020 • Shiva Naghsh, Mohammad Ataei, **Mohammadreza Yazdchi**, "Chaos-based analysis of heart rate variability time series in obstructive sleep apnea subjects", Journal of Medical Signals & Sensors.
- 2019 • Fatemeh Karami Horestani, Mohammad Eshghi, and **Mohammadreza Yazdchi**. "An ultra-low power amplifier for wearable and implantable electronic devices." Microelectronic Engineering 216,111054.
- 2019 • Khayamnia Monireh, **Yazdchi Mohammadreza**, Aghile Heidari, Foroughipour Mohsen," Diagnosis of common headaches using hybrid expert-based systems", Journal of Medical Signals & Sensors, Volume 9, Issue 3, 174-180.
- 2019 • Mohammad Hashemi Jazi, Babak Amra, Khadijeh Miadi, Mansour Jahangiri, Ali Gholamrezaei, Faezeh Tabesh, **Mohammadreza Yazdchi**, "QT Interval Variability in Patients with Obstructive Sleep Apnea", Journal of Advances in Medicine and Medical Research, 26(11): 1-5, Article no. JAMMR.41277.
- 2018 • Fatemeh Ghomi, Amin Mahnam, **Mohammadreza Yazdchi**, "A Hybrid Algorithm for Detecting Motor Imagery of Left and Right Hands Using Only Two Channels of EEG", Iranian Journal of Biomedical Engineering, 12(2), 97-109.
- 2017 • M. Anvari, **Mohammadreza Yazdchi**, A H Kayvanpour, M. Jafari Tadi, Tero Koivisto, "Design and Implementation of a Noninvasive and Cuff-less Arterial Blood Pressure Monitoring System" Computers in Cardiology (CinC), 2017, Vol 44, September 2017, pp.1-4.
- 2017 • Monireh Khayamnia, **Mohammadreza Yazdchi**, Mohsen Foroughipour, "Diagnosis of migraine headache by designing a fuzzy expert system and using learning from Examples algorithm (LFE)", Isfahan Medical School Journal, thirty-fourth year/416/ Fourth week of March 2017.
- 2016 • Monireh Khayamnia, **Mohammadreza Yazdchi**, A Haydari, Mohammad Foroughipour, "Fuzzy Expert System for Common Headache Symptoms with Almost identical Symptoms", Journal of Mashhad University of Medical Sciences, Mashhad, IRAN, vol. 59, No. 5, 293-301, December-December 2016.
- 2016 • Behshad Mehran, **Mohammadreza Yazdchi** and Hossein Pourghasem, "Automatic method of boundary analysis of vessels and accurate diagnosis of plaque in intravascular ultrasound images", Iranian Journal of Electrical and Computer Engineering, Vol. 2016, 14, No. 2-B.
- 2017 • Maryam Basij, **Mohammadreza Yazdchi**, Arash Taki, Payman Moallem, "An Automatic Approach for Artifacts Detection and Shadow Enhancement in Intra Vascular Ultrasound Images", Signal, Image and Video Processing, Febraury 2017.

- 2013 • Maryam Basij, **Mohammadreza Yazdchi**, Peyman Moallem, Arash Taki, "The Shading Areas in Intravascular Ultrasound Images Using Active Cantors", Iranian Journal of Electrical and Computer Engineering, B-Computer Engineering, Year 11, Issue 2, Winter 2014, 119-125.
- 2013 Karimizadeh, A., Mahnam, A., **Yazdchi, M. R.**, & Besharat, M. A. (2015). Individual Differences in Personality Traits. *Journal of Psychophysiology*.
- 2013 • Peyman Moallem, Arezoo Karimizadeh, **Mohammadreza Yazdchi**, "Using Shape Information and Dark Paths for Automatic Recognition of Touching and Overlapping Chromosomes in G-Band Images", International Journal of Image, Graphics and Signal Processing, 2013, 5, 22-28.
- 2012 • Ali Tizzy, Mohammad Atae, **Mohammadreza Yazdchi**, "The Possibility of Diagnosis of Cardiac Arrhythmias Using the Analysis of ECG Signal Indicators", Journal of Intelligent Methods in the Electricity Industry, Third Year, No. 10, Summer 2012.
- 2013 • Mahboubeh Parastar Feizabadi, **Mohammadreza Yazdchi**, Majid Ghoshuni, Peyman Hashemian, "A Brief Study on EEG Signals of Dysgraphia Children in Different Conditions: Relaxing and Writing Moods", International Journal of Biomedical Research, IJBR (2013) 04 (01), ISSN 0976-9633, 45-49.
- 2011 • Behrouz Mojdardshifaei, **Mohammadreza Yazdchi**, Mehran Emadi Andani, "Automatic Recognition of the Emotional Structure Based on Physiological Changes", Two Sources of Symptom and Data Processing, 2011, Issue 2, Successive 16, 100-85.
- 2012 • Shahed Mohammadi, Reihaneh Daneshmand, **Mohammadreza Yazdchi**, M. Surendra Prasad Babu, "Automatic Luminal Border Detection in IVUS Images: A Textural Approach", International Journal of Advanced Computer Science and Technology, ISSN 2249-3123 Volume 2, Number 1 (2012), pp. 63-71.
- 2012 • Farhad Forouharmajd, Parvin Nassiri, Mohammad R. Monazzam, **Mohammadreza Yazdchi**, Estimating Occupant Satisfaction of the HVAC System, Noise using the Quality Assessment Index, Noise & Health, July-August 2012, Volume 14:59, 135-9.
- 2011 • Amir Hossein Keivanpour, **Mohammadreza Yazdchi**, Reyhaneh Sadat, Scientist, Omidkhosh Nahat Aram, "Detection of Heart Electronic Signal Points in real time", Isfahan Medical School Journal, Year 28, Issue 174, Special Edition (Medical Engineering) 2011.
- 2011 • Anahita Fathi Kazerooni, Mohsen Rabbani, **Mohammadreza Yazdchi**, Saeid Kasiri and Hamidreza Saligheh Rad, "Effects of electrical and magnetic loads on bone surface remodeling: a model modification and simulation", Biomed Tech 2011; 56: 167-173 _ 2011 by Walter de Gruyter-Berlin-Boston. DOI 10.1515 / BMT.2011.016.

- 2009 • Alireza Karimian, Monir Torabian, **Mohammadreza Yazdchi**, "Improvement of Industrial Radiography for Defect Detection of Oil and Gas Pipelines in Weld Regions by Image Processing", Journal of Electrical & Computer, Vol.1, No.1, 51-58, 2009.
- 2009 • Nafiseh Salehian, **Mohammadreza Yazdchi**, Alireza Karimian, "Nastaaligh handwritten word recognition using neural network", Majlesi Journal of Electrical Engineering, Vol.2, No.4, 1-10, 2009.
- 2009 • Parisa Baghaie, **Mohammadreza Yazdchi**, Alireza Karimian, "EEG pattern recognition for the diagnosis of epilepsy using wavelet and chaos transformations", Majlesi Journal of Electrical Engineering, Vol. 2, No. 1, 51 - 59, 2009.
- 2007 • **Mohammadreza Yazdchi**, Seyyed Ali Seyed Salehi, "New connective methods derived from human speech perception system to improve machine speech recognition", Journal of Biomedical Engineering, Volume 1 (New), Issue 3, Autumn 2007, 201-214.
- 2007 • Reza Zafarani, **Mohammadreza Yazdchi**, "A Novel Action Selection Architecture in a Soccer Simulation Environment Using Neuro-Fuzzy and Bidirectional Neural Networks", International Journal of Advanced Robotic Systems, Vol. 4-No 1, 2007, 93-101.
- 2007 • **Mohammadreza Yazdchi**, Seyyedali Seyyedsalehi, Reza Zafarani, "A New Bidirectional Neural Network for Lexical Modeling and Speech Recognition Improvement", International Journal of Science & Technology, Scientia IRANica, Vol. 14-No 6, 2007, 571-578.
- 2005 • **Mohammadreza Yazdchi**, Seyyed Ali Seyed Salehi, Farshad Almasgangi, "Improving speech recognition using the combination of lexical knowledge with audio information", Journal of Computer Science and Engineering, No. 3, 2005, 13-2.

ARTICLES ON VALID CONFERENCES

- 2020 • Sahar Karimian, Mohammadreza Yazdchi, "Implementation and validation of a new non-invasive blood pressure measurement algorithm with oscillation method based on international standards of hypertension", 28th Iranian Conference on Electrical Engineering (ICEE 2020), 4-6 August 2020, University of Tabriz, Tabriz, Iran.
- 2020 • Golnaz Zafaripour, Mohammadreza Yazdchi, Amirsalar Khandan, "Fabrication and design of smart bandage for monitoring and treatment of chronic wounds with online monitoring of temperature, humidity and PH", 9th National Burn Congress, 2020.
- 2019 • Fatemeh Karami Horestani, Mohammad Eshghi, Mohammadreza Yazdchi, "A 790 nW Low-Noise Amplifier for Low Power Biopotential Signal Recording Systems", 1st Iranian Conference on Microelectronics, 25-27 December 2019, Tehran, Iran.
- 2019 • Golnaz Zafaripour, Mohammadreza Yazdchi, Amirsalar Khandan, Mohammad Yaribakht, "Fabrication and design of smart bandage for monitoring and treatment of chronic wounds with online monitoring of temperature, humidity and pH", 4th international and 6th national congress of wound and tissue repair, 19-22 November 2019, Tehran, Iran.
- Fatemeh Karami Horestani, Mohammad Eshghi, Mohammadreza Yazdchi, "Design and Simulation of a Time Division Multiplexer for Multi-channel Neural Recording

- 2019 Microsystem", 1st Iranian Conference on Microelectronics, 25-27 December 2019, Tehran, Iran.
- Saeed Shakibfar, Mohammadreza Yazdchi, Susan Aliakbaryhosseinabadi, "Predicting Electrical Storm Using Episodes Parameters from ICD Recorded Data.", 41st International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC'19, 23-26 July 2019, Berlin, Germany.
- 2019 Fatemeh Karami Horestani, Mohammad Eshghi, Mohammadreza Yazdchi, "A 790 nW Low-Noise Amplifier for Low Power Biopotential Signal Recording Systems", 1st Iranian Conference on Microelectronics, 25-27 December 2019, Tehran, Iran.
- Fatemeh Karami Horestani, Mohammad Eshghi, Mohammadreza Yazdchi, "Design and Simulation of a Time Division Multiplexer for Multi-channel Neural Recording Microsystem", 1st Iranian Conference on Microelectronics, 25-27 December 2019, Tehran, Iran.
- 2019 Saeed Shakibfar, Mohammadreza Yazdchi, Susan Aliakbaryhosseinabadi, ""Effectiveness of CRT-D versus ICD on Prevention of Electrical Storm: Big Data from the USA.", 41st International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC'19, 23-26 July 2019, Berlin, Germany.
- Khayamnia Monire, Yazdchi Mohammadreza, Foroughipour Mohsen, "Healthcare Expert System Based on Fuzzy Logic: Case Study on Diagnosing Headache", 4th Internatoinal Conference on Industrial and System Engineering, Mashad, Iran, 12 & 13 Sep., 2017.
- 2018 Khayamnia Monire, Yazdchi Mohammadreza, Aghile Heidari, "Data Mining Approach for Diagnosing Migraine Headache." The 11th International Conference of Iranian Operations Research Society, Kermanshah, IRAN, May 2-4, 2018.
- 2018 Zahra Bahrami, Mohammadreza Yazdchi, Mohammad Tabatabaei, "Control of Depth of Anesthesia Using PID Controller", 5th International Conference on Electrical and Computer Engineering with Emphasis on Native Knowledge, Allameh Tabatabaei University, Tehran, IRAN, February 2018.
- 2018 Zahra Bahrami, Mohammadreza Yazdchi, Mohammad Tabatabaei, "Control of Depth of Patient Anesthesia During Surgery Based on Fractional Order PID Controller", 5th International Conference on Electrical and Computer Engineering with Emphasis on Native Knowledge, Allameh Tabatabaei University, Tehran, IRAN, February 2018.
- 2018 Zahra Bahrami, Mohammadreza Yazdchi, Mohammad Tabatabaei, "A New Method for Control of the Level of Patient Anesthesia Using the Optimal Fractional Order PID Controller", 5th International Conference on Electrical and Computer Engineering with Emphasis on Native Knowledge, Allameh Tabatabaei University, Tehran, IRAN, February 2018.
- 2017 M. Anvari, Mohammadreza Yazdchi, AH Kayvanpour, M. Jafari Tadi, Tero Koivisto, "Design and Implementation of a Noninvasive and Cuff-less Arterial Blood Pressure Monitoring System" in Computers in Cardiology (CinC), 2017 44th Annual International Conference, pp.1-4. Rennes, France.

- 2017- Khayamnia Monire, **Mohammadreza Yazdchi**, Ali Vahidiankamyad, Mohsen Foroughipour, "The Recognition of Migraine Headache by Designation of the Fuzzy Expert System and Usage of the LFE Learning Algorithm", 5th Iranian Joint Congress on Fuzzy and Intelligent Systems, 7-9 March, 2017, Qazvin Islamic Azad University.
- 2016 - Adib Sadri, **Mohammadreza Yazdchi**, Mehdi Mosaddeghfar, "Isolation of Baby's Crying from the Environment: Using the Linear Scale in Capsular Factors", 24th Iranian Conference on Electrical Engineering, May 2016, Shiraz, IRAN.
- 2014 - Basij Maryam, Taki Arash, **Yazdchi Mohammadreza**, "Automatic shadow enhancement in intra vascular ultrasound (IVUS) images", Biomedical Engineering (MECBME), 2014 Middle East Conference, IEEE, DOI (10.1109 / MECBME.2014.6783266), Doha, Qatar, Feb. 17-20 2014, 309-312.
- 2014 - Karimimehr Saeed, **Yazdchi Mohammadreza**, Computer and Knowledge Engineering (ICCKE), 2014 4th International eConference, IEEE, DOI (10.1109 / ICCKE.2014.6993453), Mashhad, IRAN, Oct. 2014, 410-413.
- 2014 - Sepideh Tork, Alireza Karimian, **Mohammadreza Yazdchi**, "Optimization of diagnosis and measurement of fetal neck impedance in ultrasound images", 11th Iranian Medical Physics Conference, Sep. 2014, Tehran, IRAN.
- 2014 - Sepideh Tork, Alireza Karimian, **Mohammadreza Yazdchi**, "A New Method for Reducing Spinal Noise in Embryonic Sonography Images", Iranian Physics Conference, September 2014, Zahedan, IRAN.
- 2013 - Peyman Hashemian, **Mohammadreza Yazdchi**, Mahboubeh Parastar Feizabadi, Majid Ghoshuni, "Study on Writing Disorder by Neurofeedback Training", Iranian 6th International Congress of Child and Adolescent Psychiatry, September 17-19. 2013, Tabriz University of Medical Sciences, Faculty of Medicine, 135.
- 2013 - Erfan Naghsh, **Mohammadreza Yazdchi**, "Detection of real time ventricular fibrillation using artificial neural networks and image formation based on its delayed signal", 5th Iranian Electronic and Electrical Engineering Conference (ICEEE 2013), Aug. 2013, Gonabad, IRAN.
- 2013 - Hassan Yazdanian, Ashkan Noaman, **Mohammadreza Yazdchi**, "Autonomous Detection of Heartbeats and Categorizing them by Using Support Vector Machines", The 20th Iranian Confirmation on Biomedical Engineering (ICBME 2013), University of Tehran, December 18-20, 2013.
- 2013- Hashemi Jazi, Amra, **Mohammadreza Yazdchi**, Jahangiri, Tabesh, Gholamrezaei, "P-wave duration and dispersion in Holter electrocardiography of patients with obstructive sleep apnea", 5th World Congress on Sleep Medicine in Valencia, Spain, October 2013.
- 2013- Elnaz IlBeigi, **Mohammadreza Yazdchi**, Amin Mahnam, "A Way to Recognize Natural and Artificial Face Senses in Video Images", Eighth Conference on Visual Machine and Image Processing, Sep. 2013, Zanjan, IRAN.
- 2013 - Behrouz Mojadar Shafiee, **Mohammadreza Yazdchi**, "Quantitative Evaluation of Physiological Signal Effectiveness in Detection of Emotional State for Therapeutic Care", 21st Iranian Electrical Engineering Conference, May-May, 2013, Mashhad, IRAN.

- 2013 Sepideh Tork, **Mohammadreza Yazdchi**, Arezoo Karimizadeh, "How to Associate Sleep Disorder Breathing and Extracted Respiratory Signal," 21st Iranian Conference on Electrical Engineering (ICEE 2013), Mashhad, IRAN, 14-16 May 2013.
- 2013 Elnaz Ilbeygy, **Mohammadreza Yazdchi**, Amin Mahnam, "Recognition of emotions in a circle of brain signals and facial expressions", 21st Iranian Electrical Engineering Conference, May 2013, Mashhad, IRAN.
 - 2012 Farhad Forouharmajd, Parvin Nassiri, Mohammadreza Monazzam, **Mohammadreza Yazdchi**, "Passive and Active noise control of a propeller fan by MATLAB simulation", 2nd International Conference on Acoustics & Vibration (ISAV2012), Tehran, IRAN, 26-27 Dec. 2012.
 - 2012 Farhad Forouhar Majd, Parvin Nasiri, Mohammadreza Polzasin, **Mohammadreza Yazdchi**, "Effectively Deleting Voice Activated by Channel Using Adaptive Filter and Simulation Software", Conference on Air and Sound Pollution Management, Tehran, Dec 2012, IRAN.
 - 2012 Elnaz Ilbeygi, **Mohammadreza Yazdchi**, Amin Mahnam, "Advanced System Design for Sensory Recognition Based on Brain Signals and Face Images", International Conference on Electronic Health, Dec. 2012, Tehran, IRAN.
 - 2012 Mahboubeh ParastarFezabadi, **Mohammadreza Yazdchi**, Majid Ghoshuni, Peyman Hashemiyani, "Investigation of the Brain Signals Function by the PSD Method in Dysgraphia Children in Comparison with their Non-Task Signals", Basic and Clinical Neuroscience Congress, Nov. 7-9. 2012, Tehran, IRAN.
 - 2012 Mahboubeh ParastarFezabadi, **Mohammadreza Yazdchi**, Majid Ghoshuni, Peyman Hashemiyani, "Evaluation of the Brain Signal Complexity during Writing in Children with Dysgraphia in Comparison to Their Relaxing Moods", Basic and Clinical Neuroscience Congress, Nov. 7-9. 2012, Tehran, IRAN.
 - 2012 Arezoo Karimizadeh, Amin Mahnam, **Mohammadreza Yazdchi**, Mohammadali Besharat, "Individual Differences in Personality Traits: Perfectionism and the Brain Structure", Basic and Clinical Neuroscience Congress, Nov. 7-9. 2012, Tehran, IRAN.
- 2012 Maryam Basij, **Mohammadreza Yazdchi**, Peyman Moallem, Shahed Mohammadi, "Automatic shadow detection in intra vascular ultrasound images using adaptive thresholding", Systems, Man, and Cybernetics (SMC), 2012 IEEE International Conference, Oct. 2012, Seoul, South Korea.
- 2011 Amir Hossein Keivanpour, **Mohammadreza Yazdchi**, Reyhaneh Sadat, Scientist, Omid Khoshtiyat Aram, "Introduction of soft processing for the analysis and analysis of electrical heart signals," 5th Electronic Health Conference and ICT applications in Iranian medicine, June 2011, IRAN, Tabriz.
- 2012 Elnaz Il Beigi, **Mohammadreza Yazdchi**, Majid Mohammadbigu, "Recognizing Different Emotional Conditions Using the EEG Signal", May 2012, Twentieth Conference on Electrical Engineering, Tehran, IRAN.

2011. Arezoo Karimizadeh, Payman Moallem, **Mohammadreza Yazdchi**, "Automatic Recognition and Separation of Touching and Overlapping Chromosomes", 18th Iranian Conference on Biomedical Engineering, 14-16 December 2011, Tehran, IRAN, 264-267.
2011. Mohsen Safdari, Alireza Karimain, **Mohammadreza Yazdchi**, "Metal Artifact Correction in CT Images by a New Algorithm", The 1st MEFOMP International Conference of Medical Physics, Nov. 2-4, 2011, Shiraz, IRAN.
2011. Mohsen Safdari, Alireza Karimain, **Mohammadreza Yazdchi**, "Metal Artifact Reduction in CT Images of the Head by Image Processing Techniques", Volume 22, 2011, Pages 209-211. 2011 International Conference on Physics Science and Technology (ICPST 2011), December 12-13, 2011 in Hong Kong.
2011. Anahita Fathi, **Mohammadreza Yazdchi**, Mohsen Rabbani, "Simulation of the Effects of Electrical and Magnetic Loadings on Internal Bone Remodeling", 5th International Conference on Biomedical Engineering and 8th Asian-Pacific Conference on Medical and Biological Engineering, 20-23 June 2011, Kuala Lumpur, Malaysia.
2011. Sina Mehdi-Zadeh, **Mohammadreza Yazdchi**, Mehdi Nirmand, "Removal of Noise Signal Signal in Partial Discharge in Power Transformers Based on Wavelet Conversion Techniques", 2nd National Conference on Electrical Power Consumption Modification, March 2011, IRAN, Ahvaz.
2011. Behrooz Mojadar Shafiei, **Mohammadreza Yazdchi**, Majid Mohammadbigi, "Comparison of Feature Reduction Methods and Classification for Automatic Recognition of the Emotional Basis Based on Physiological Changes", Fourth Electronic Health Conference and ICT Applications in Medical Medicine, Feb. 2011, IRAN, Mashhad.
2011. 35. Reyhane Sadat Daneshmand, **Mohammadreza Yazdchi**, Amir Hossein Keyvanpur, "Providing a Wireless Network for Remote Patient Detection and Real-Time Diagnosis of Cardiovascular Events Using the ARM Processor", Fourth Electronic Health Conference and ICT Applications in Iranian Medicine, February, 2011, IRAN, Mashhad.

- 2010 • Monir Torabian, Alireza Karimian, **Mohammadreza Yazdchi**, Sepideh Yazdani, "Identification of Wound Area Defects in Industrial Radiography Films Using Image Processing and Neural Networks", 6th Conference on Image Processing and Visual Machine, November 2010, IRAN, Esfahan.
- 2010 • Shahed Mohammadi, **Mohammadreza Yazdchi**, Alireza Karimian, Hajar Mohammadi, "Diagnosis of plaque in IVUS images using tissue-based analysis", 17th Iranian Medical Engineering Conference (ICBME2010), Nov. 2010, IRAN, Esfahan.
- 2010 • **Mohammadreza Yazdchi**, Amir Hossein Keyvanpour, Reyhaneh Sadat Daneshmand, Omid Khoshniat Aram, "Detecting the Critical Points of the Real-Time Electronic Signal and Implementing the ARM Processor", 17th Iranian Conference on Medical Engineering, ICBME 2010, Nov. 2010, IRAN, Esfahan.
- 2010 • Behrooz Mojarrad Shafiei, **Mohammadreza Yazdchi**, "Digitization and Recognition of Physiological Changes Based on Emotions", 17th Iranian Conference on Medical Engineering (ICBME2010), Nov. 2010, IRAN, Esfahan.
- 2010 • Shahed Mohammadi, **Mohammadreza Yazdchi**, Alireza Karimian, Hajar Mohammadi, "Automatic Luminal Border Detection in IVUS Images: A Textural Approach", The 6th Iranian Machine Vision & Image Processing Conference, University of Isfahan, IRAN, Oct. 2010.
- 2010 • Mozhddeh Islamic, **Mohammadreza Yazdchi**, Alireza Karimian, "Detecting cold rolled steel sheet imperfections using Gray Level Co-Occurrence Matrix (GLCM)", 2nd National Electrical Engineering Conference of IRAN, March 2010, IRAN, Esfahan.
- 2009 • Anahita Fathi, **Mohammadreza Yazdchi**, Mohsen Rabbani, "Simulation of the Effects of Electrical Loadings on Bone Surface Remodelling", World Congress 2009, Medical Physics and Biomedical Engineering, September 2009, Munich, Germany.
- 2009 • **Mohammadreza Yazdchi**, Mehran Yazdi, Arash Golibagh Mahyari, "Steel Surface Defect Detection Using Texture Segmentation Based on Multifractal Dimension", Proceedings of the 1st International Conference on Digital Image Processing (ICDIP 2009), p.p. 346-350, March 2009, Thailand, Bangkok.
- 2008 • **Mohammadreza Yazdchi**, Arash Golibagh Mahyari, Ali Nazeri, "Detection and Classification of Surface Defects of Cold Rolling Mill Using Morphology and Neural Network", Proceedings of the International Conference on Computational Intelligence for Modeling, Control and Automation (CIMCA 08), p.p. 1071-1076, December 2008, Austria, Vienna.
- 2008 • **Mohammadreza Yazdchi**, Arash Golibagh Mahiari, Ali Nazeri, "Detection and clustering of cold rolled steel sheet imperfections using process design and fuzzy inference systems", Second Joint Congress of Fuzzy and Intelligent Systems of IRAN, November 2008, IRAN, Tehran.

- 2008 Alireza Karimain, Monir Torabian, **Mohammadreza Yazdchi**, "Optimization of the Industrial Radiography Technique for Defect Detection of Oil and Gas Pipelines in Weld Regions by Image Processing Methods", International Conference on Recent Developments and Applications of Nuclear Technologies, Bialowieza, Poland, 15 -17 September 2008.
- 2008 Monir Torabian, Alireza Karimain, **Mohammadreza Yazdchi**, "Optimization of Interpretation of Industrial Radiographs for Defect Detection in Oil and Gas Pipeline Welds", The 2nd International Conference on Technical Inspection and NDT (TNDT), 21-22 October 2008, Tehran, IRAN.
- 2008 Leyla Kiani, MohammadrezaAhmadzadeh, **MohammadrezaYazdchi**, Mohammad Hashemi, "Coronary Artery Ducus Detection in angiographic Detection Using Fuzzy Mean Classification Algorithm", 14th Annual National Computer Conference of IRAN Computer Society, Tehran, Tehran, IRAN, Tehran, IRAN, March 2008.
- 2005 Reza Zafarani, **Mohammadreza Yazdchi**, Seyyedali seyyedsalehi, "An ANFIS Based Method of Agent Behavior in Simulated Soccer Agents Proceedings of the IEEE ICTAI 2005", Hong Kong 2005, 1-18.
- 2005 Reza Zafarani, **Mohammadreza Yazdchi**, "Accurate Neuro-Fuzzy Action Selection in Multi-Agent Systems," Proceedings of the Eighth Pacific Rim International Workshop on Multi-Agents (PRIMA 2005), Malaysia 2005, 39-53.
- 2005 Reza Zafarani, **Mohammadreza Yazdchi**, "A Neuro-Fuzzy Method of Agent Behavior and Action Selection Based on Priority / Probability Modeling", Proceedings of the Indian International Conference on Artificial Intelligence, Pune, India 2005, 2336-2348.
- 2006 **Mohammadreza Yazdchi**, Seyyedali seyyedsalehi, Reza Zafarani, "A New Bidirectional Neural Network for Lexical Modeling and Speech Recognition Improvement", 11th International Computer Society of IRAN Computer Conference (CSICC2006), Tehran, IRAN, 220-226.
- 2005 **Mohammadreza Yazdchi**, Seyed Ali Seyed Salehi, Farshad Almasgang, "Improving the Speech Recognition Based on Comparative Lexicographic Modeling by Neural Network Invertebrate", IKT2005, IRAN, Tehran.
- Mohammadreza Yazdchi**, Seyyed Ali Seyyed Salehi, Farshad Almasgang, "Combining vocabulary knowledge with audio information to improve the recognition of distinct words using new connective methods", The second workshop of Persian language and computer science, IRAN, Tehran, 391-404.
- 2008 Saeid Akhavan Bitaghsir, Hamid Reza Hasani, Arefeh Kazemi, Hoda Safaeipour, Mohammad Sheykholeslam, Hedayat Vatankhah, **Mohammadreza Yazdchi**, Zahra Zojaji and Zainab Zolaktaf, UI-AI3D 2008 Team Description, In the proceedings CD, RoboCup 2008, Suzhon, China, July 2008.

- 2008 • Saeid Akhavan Bitaghshir, Hamid Reza Hasani, Arefeh Kazemi, Hoda Safaeipour, Mohammad Sheykholeslam, Hedayat Vatankhah, **Mohammadreza Yazdchi**, Zahra Zojaji, and Zainab Zolaktaf, UI-AI3D Development 2008 Team Description, In the proceedings CD, RoboCup 2008, Suzhou, China, July 2008.
- 2007 • Saeid Akhavan Bitaghshir, Mohammad Babaeizadeh, Hamid Reza Hasani, Arefeh Kazemi, Hoda Safaeipour, Mohammad Sheykholeslam, Hedayat Vatankhah, **Mohammadreza Yazdchi**, Zahra Zojaji, and Zainab Zolaktaf, UI-AI3D 2007 Team Description, In the proceedings CD, RoboCup 2007, Atlanta, USA, July 2007.
- 2007 • Saeid Akhavan Bitaghshir, Mohammad Babaeizadeh, Hamid Reza Hasani, Arefeh Kazemi, Hoda Safaeipour, Mohammad Sheykholeslam, Hedayat Vatankhah, **Mohammadreza Yazdchi**, Zahra Zojaji and Zainab Zolaktaf, UI-AI3D Development Team Presentation, In the proceedings CD, RoboCup 2007, Atlanta, USA, July 2007.
- 2002 • **Mohammadreza Yazdchi**, "Artificial Neural Networks and their Application", Fifth Week of the University of Isfahan, Dec 2002.

RESEARCH PROJECTS (OUTSIDE UNIVERSITY)

- 2009 • Kamal Jamshidi, **Mohammadreza Yazdchi**, "The study and study of different parts of the apparatus for detecting the surface imperfections of a hot rolling unit sheet", Mobarakeh Steel Complex, 2007-2009.
- 2009 • **Mohammadreza Yazdchi**, "Automatic identification of some of the defects of the sheath sheet in the sheet correction line based on computer image and visual processing methods", Mobarakeh Steel Complex, 2007-2009.
- 2013 • **Mohammadreza Yazdchi**, "Design and construction of a portable wide-band portable broadband analyzer sample for troubleshooting power transformers", Mobarakeh Steel Complex, 2010-2013.

RESEARCH PROJECTS (INSIDE UNIVERSITY)

- **Mohammadreza Yazdchi**, "Design and construction of a hospital operating room lamp with the use of power LEDs", 2009-2012.

RESEARCH PROJECTS

- 2015 • Design and manufacture of a hospital sample of the recording and maintenance device and ECG Holter Monitor (ECG Holter Monitor).

- Implementation of Speech Independent Speech Recognition Software Persian Speaking Single Speaker (Joint Program between IRAN Telecommunication Research Center and Amirkabir University of Technology, 2005).
- Implementation of signature-recognition software (Amirkabir University of Technology, 1999).
- Design and construction of long distance radio receiver and transmitter (Isfahan University of Technology, 1997).

COMMERICALIZATION PROJECTS

- Designing and manufacturing of 200 electroshocks (Defibrillator) with the ability to work in ECG monitoring, synchronous (cardioversion), paced (synchronous and asynchronous), automatic external defibrillator (AED), and manual biphasic defibrillator (360 Joules) modes.

SUPERVISORY PROJECTS

- Study of Water Disinfection Solutions and Tools - Production of Digital Chlorine Cycle (Isfahan Scientific and Research Campus, 2004-2006).
- Production of Ionian Mobility Laboratory Spectrometry (Isfahan Scientific and Research Campus, 2007).
- Research in the semiconductor production phase of ionized laboratory spectrometer (Isfahan Scientific and Research Town, 2007).
- Construction of H2S Gas Analysis Sensor in Natural Gas (Isfahan Scientific and Research Town, 2012).
- Automatic disinfection device and installation of this system on patient bed (Isfahan Scientific and Research Town, 2012).
- Design and manufacture of oxygen blender (Isfahan Scientific and Research Town, 2012).

HOLDING WORKSHOPS AND CONFERENCES

- 2005 • Neural Networks, December 2nd, 2005, The AI Games 2005 Workshop.
- 2011 • Executive Secretary of the Workshop "Medical Imaging Systems and Radiation Surgery", August 2011 - University of Isfahan, Faculty of Engineering and Engineering, Medical Engineering Department.

- 2010 ▪ Executive Secretary of the Sixth Conference of IRAN's Machine Vision, November 2010 - University of Isfahan-Isfahan-IRAN.

HOLDING WORKSHOPS AND CONFERENCES

- 2007 ▪ "Methods for producing electronic content in e-learning", September 2007.
- 2009 ▪ "Knowledge of POWERLAB Signal acquisition Systems", July 2009.

HOBBIES

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