

**CURRICULUM VITAE
ALIREZA
MEHRIDEHNAVI**



CONTACT INFORMATION

Phone:+313 792 3855
Email:mehri@med.mui.ac.ir
P.O.Box: 8174673461

[Address]
School of Advanced in Medical Technology
Isfahan University of Medical Sciences,
Isfahan,
Iran,

CURRENT STATUS
Professor of Medical Engineering (Bioelectric)

EDUCATIONAL BACKGROUND

1992 - 1996	PhD in Electrical Engineering: Medical Engineering Liverpool University
1990 - 1992	ME(Master of Engineering) in Electrical Engineering: Measurement and Instrumentation(M&I) IIT Rookee India
1984 - 1988	BSc in Electrical Engineering: Electronics Isfahan university of technology

PUBLICATIONS

A) JOURNAL PAPERS

A Novel Approach for Fast Circlet Transform: Dynamic Analysis of Coefficients for Circular Shapes Quantification

Journal: Pattern recognition, January 2026, 113098.

Authors: H Mir, A Mehridehnavi

Multivariate Gaussian Bayes classifier with limited data for segmentation of clean and contaminated regions in the small bowel capsule endoscopy images

Journal: PloS one 20 (3), e0315638

Authors: V Sadeghi, A Mehridehnavi, M Behdad, A Vard, M Omrani, M Sharifi, ...

Objective Evaluation of Small Bowel Visualization Quality in Wireless Capsule Endoscopy Images Using Generative Adversarial Network

Journal: Advanced Biomedical Research 14 (1), 1-9

Authors: Vahid Sadeghi1, Maryam Behdad, Ramin Afrah1, Alireza Vard1, Seyed Amir Seyed, Mohsen Sharifi, Alireza Mehridehnavi

Pixel-wise annotation for clear and contaminated regions segmentation in wireless capsule endoscopy images: A multicentre database

Journal: Data in Brief 57, 110927

Authors: Vahid Sadeghi, Yasaman Sanahmadi, Maryam Behdad, Alireza Vard, Mohsen

Deep attention network for identifying ligand-protein binding sites

Journal: Journal of Computational Science 81, 102368

Authors: F Nazem, R Rasti, A Fassihi, AM Dehnavi, F Ghasemi

Real-Time Small Bowel Visualization Quality Assessment in Wireless Capsule Endoscopy Images Using Different Lightweight Embeddable Models

Journal: International Journal of Imaging Systems and Technology 34 (3)

Authors: Vahid Sadeghi, Alireza Mehridehnavi, Yasaman Sanahmadi, Sajed Rakhshani ...

Unsupervised Neural Manifold Alignment for Stable Decoding of Movement from Cortical Signals

Journal: International journal of neural systems 34 (01), 2450006

Authors: M Ganjali, A Mehridehnavi, S Rakhshani, A Khorasani

Identification of circular patterns in capsule endoscopy bubble frames

Journal: Journal of Medical Signals & Sensors 14 (5), 1-11

Authors: H Mir, V Sadeghi, A Vard, A Mehridehnavi

Segmentation and region quantification of bubbles in small bowel capsule endoscopy images using wavelet transform

Journal: Informatics in Medicine Unlocked 42, 101364

Authors: V Sadeghi, A Vard, M Sharifi, H Mir, A Mehridehnavi

A GU-Net-Based Architecture Predicting Ligand–Protein-Binding Atoms

Journal: Journal of Medical Signals & Sensors 13 (1), 1-10

Authors: F Nazem, F Ghasemi, A Fassihi, R Rasti, AM Dehnavi

Accelerating Big Data Analysis through LASSO-Random Forest Algorithm in QSAR Studies

Journal: Bioinformatics 38 (2), 469-475

Authors: F Motamed, H Pérez-Sánchez, A Mehridehnavi, A Fassihi, F Ghasemi

Identification of myocardial infarction using morphological features of electrocardiogram and vectorcardiogram

Journal: IET Signal Processing 15 (9), 674-685

Authors: NJ Hafshejani, A Mehridehnavi, R Hajian, S Boudagh, M Behjati

3D U-Net: A voxel-based method in binding site prediction of protein structure

Journal: Journal of Bioinformatics and Computational Biology 19 (02), 2150006

Authors: F Nazem, F Ghasemi, A Fassihi, AM Dehnavi

Journal: Journal of Medical Signals & Sensors 11 (1), 12-23

Authors: T Mahmudi, R Kafieh, H Rabbani, A Mehri, MR Akhlaghi

Reconstruction of Optical Coherence Tomography Images Using Mixed Low Rank Approximation and Second Order Tensor Based Total Variation Method

Journal: IEEE Transactions on Medical Imaging

Authors: Parisa Ghaderi Daneshmand, Alireza Mehridehnavi, Hossein Rabbani

Protein kinase inhibitors' classification using K-Nearest neighbor algorithm

Journal: Computational biology and chemistry 86, 107269

Authors: Arian, R., Hariri, A., Mehridehnavi, A., Fassihi, A., Ghasemi, F.

Super-Resolution of Optical Coherence Tomography Images by Scale Mixture Models

Journal: IEEE Transactions on Image Processing 29, 5662-5676

Authors: PG Daneshmand, H Rabbani, A Mehridehnavi

Forming optimal projection images from intra-retinal layers using curvelet-based image fusion method

Journal: Journal of Medical Signals & Sensors 10 (2), 76-85

Authors: Jalili, J., Rabbani, H., Dehnavi, A.M., Kafieh, R., Akhlaghi, M.

Circlet transform in cell and tissue microscopy

Journal: Optics & Laser Technology 124, 106000

Authors: O Sarrafzadeh, H Rabbani, AM Dehnavi, A Talebi

Three-dimensional curvelet-based dictionary learning for speckle noise removal of optical coherence tomography

Journal: Biomedical Optics Express 11 (2), 586-608

Authors: M Esmaeili, AM Dehnavi, F Hajizadeh, H Rabbani

Improving the biological activity prediction Kinase using artificial Neural network and partial least square method.

Journal: Journal of Health and Biomedical Informatics 7 (1), 30-39

Authors: R Arian, DA MEHRI, F Ghasemi

The ellipselet transform

Journal: Journal of Medical Signals and Sensors (J Med Signals sens) 9 (4), 274

Authors: Z Khodabandeh, H Rabbani, AM Dehnavi, O Sarrafzadeh

Local comparison of cup to disc ratio in right and left eyes based on fusion of color fundus images and OCT B-scans

Journal: Information Fussion, Volume 51, November 2019, Pages 30-41

Authors: Marzieh Mokhtari, HosseinRabbani, AlirezaMehri-Dehnavi, RahelehKafieh, Mohammad-RezaAkhlaghi, MohsenPourazizi, FangLeyuan.

Study of CXCR4 Chemokine Receptor Inhibitors Using QSPR and Molecular Docking Methodologies

Journal: Journal of Theoretical and Computational Chemistry, 2019/5/6

Authors: Tahereh Mostashari-Rad, Roya Arian, Houri Sadri, Alireza Mehridehnavi, Fahimeh Ghasemi, Afshin Fassihi

Convolutional Mixture of Experts Model: A Comparative Study on Automatic Macular Diagnosis in Retinal Optical Coherence Tomography Imaging

Journal: J Med Signals Sens. 2019 Jan-Mar; 9(1): 1-14

Authors: Reza Rasti, Alireza Mehridehnavi, Hossein Rabbani, and Fedra Hajizadeh

Neural network and deep-learning algorithms used in QSAR studies: merits and drawbacks

Journal: Drug Discovery today 2018

Authors: Fahimeh Ghasemi, Alireza Mehridehnavi, Alfonso Pérez-Garrido and Horacio Pérez-Sánchez

Macular OCT Classification Using a Multi-Scale Convolutional Neural Network Ensemble

Journal: IEEE transactions on medical imaging 2018

Authors: Reza Rasti, Hossein Rabbani, Alireza Mehridehnavi, Fedra Hajizadeh

Automatic diagnostic of abnormal macula in retinal optical coherence tomography images using wavelet-based convolutional neural network features and random forests classifier

Journal: Journal of biomedical optics 2018

Authors: Reza Rasti, Alireza Mehridehnavi, Hossein Rabbani, Fedra Hajizadeh

A Quantitative Investigation on the Effect of Edge Enhancement for Improving Visual Acuity at Different Levels of Contrast

Journal: Journal of Biomedical Physics and Engineering 2018

Authors: S Nabavi, A Mehri Dehnavi, A Vard, S Mohammad Pour

Deep neural network in QSAR studies using deep belief network

Journal: Applied Soft Computing 2018

Authors: Fahimeh Ghasemi, Alireza Mehridehnavi, Afshin Fassihi, Horacio Pérez-Sánchez

Computer-aided diagnosis software for vulvovaginal candidiasis detection from Pap smear images

Journal: Microscopy research and technique 2018

Authors: Mohammadreza Momenzadeh, Alireza Vard, Ardesir Talebi, Alireza Mehri Dehnavi, Hossein Rabbani

The role of different sampling methods in improving biological activity prediction using deep belief network

Journal: Journal of computational chemistry. 2017, Vol. 38 (4), 195-203

Authors: F Ghasemi, A Fassihi, H Pérez-Sánchez, A Mehri Dehnavi

3D Curvelet-Based Segmentation and Quantification of Drusen in Optical Coherence Tomography Images

Journal: Journal of Electrical and Computer Engineering. Vol 2017, (2017)

Authors: Mahdad Esmaeli, Alireza Mehridehnavi, Hossein Rabbani

The Best Texture Features for Leukocytes Recognition

Journal: Journal of Medical Signals and Sensors (2017)

Authors: Alireza Mehri Dehnavi, Hossein Yousefi Banaem, Ardesir Talebi, Arshin Gharibi

Speckle Noise Reduction in Optical Coherence Tomography Using Two-dimensional Curvelet-based Dictionary Learning

Journal: Journal of Medical Signal and Sensors. 2017 Apr-Jun; 7(2): 86-91

Authors: Mahdad Esmaeli, Alireza Mehridehnavi, Hossein Rabbani, and Fedra Hajizadeh

The best texture features for leukocytes recognition

Journal: Journal of Medical Signal and Sensors. 2017

Authors: Omid sarrafzade, Alireza Mehri Dehnavi, Hossein Yousefi Banaem, Ardesir Talebi, Arshin Gharibi

Computer-aided diagnosis software for vulvovaginal candidiasis detection from Pap smear images

Journal: Microscopy Research and Technique. 2017, October 7.

Authors: Mohammadreza Momenzadeh, Alireza Vard, Ardesir Talebi, Alireza Mehri Dehnavi, Hossein Rabbani

Automatic diagnosis of vulvovaginal candidiasis from Pap smear images

Journal: Journal of microscopy, Volume 267, Issue 3 September 2017 Pages 299–308

Authors: M. Momenzadeh, M. Sehhati, A. Mehridehnavi, A. Talebi, H. Rabbani

Three-dimensional Segmentation of Retinal Cysts from Spectral-domain Optical Coherence Tomography Images by the Use of Three-dimensional Curvelet Based K-SVD

Journal: Journal of Medical Signal and Sensors. 2016 Jul-Sep; 6(3): 166–171

Authors: Mahdad Esmaeili, Alireza Mehridehnavi, Hossein Rabbani, and Fedra Hajizadeh

Analyzing features by SWLDA for the classification of HEp-2 cell images using GMM

Journal: Pattern Recognition Letters Volume 82, Part 1, 15 October 2016, Pages 44-55

Authors: OmidSarrafzadeh, HosseinRabbani, Alireza Mehri Dehnavi, ArdesirTalebi

Detection and classification of Breast Cancer in Wavelet Sub-bands of Fractal Segmented Cancerous Zones

Journal: Journal of Medical Signal and Sensors. 2015 Jul-Sep; 5(3): 162–170

Authors: Alireza Shirazinodeh, Hossein Ahmadi Noubari,¹ Hossein Rabbani, and Alireza Mehri Dehnavi

Obtaining Thickness Maps of Corneal Layers Using the Optimal Algorithm for Intracorneal Layer Segmentation

Journal: International Journal of Biomedical Imaging Volume 2016 (2016)

Authors: Hossein Rabbani,¹ Rahele Kafieh,¹ Mahdi Kazemian Jahromi,¹ Sahar Jorjandi,² Alireza Mehri Dehnavi,¹ Fedra Hajizadeh,³ and Alireza Peyman

Automatic recognition of myeloma cells in microscopic images using bottleneck algorithm, modified watershed and SVM classifier

Journal: Journal of microscopy 2016, vol. 261 (1), 46-56

Authors: Z Saeedizadeh, Alireza Mehridehnavi, A Talebi, H Rabbani, O Sarrafzadeh and A. Vard.

Ensemble Supervised Classification Method Using the Regions of Interest and Grey Level Co-Occurrence Matrices Features for Mammograms Data

Authors: HY Banaem, AM Dehnavi, and M Shahnazi

Journal: Iranian Journal of Radiology. 2015 Jul; 12(3).

Nucleus and cytoplasm segmentation in microscopic images using K-means clustering and region growing

Journal: Advanced in Biomedical Research, 2015 Aug 31

Authors: Omid Sarrafzadeh and Alireza Mehridehnavi

Stable Gene Signature Selection for Prediction of Breast Cancer Recurrence Using Joint Mutual Information

Journal: IEEE transactions on computational biology and bioinformatics. 2015 Vol. 12 (6)

Authors: M Sehhati, A Mehridehnavi, H Rabbani, M Pourhossein

The role of different subject material on the admission of PhD candidates of Epidemiology, Bacteriology and Parasitology branches at year 2006-2007

Journal: Journal of Education and Health Promotion. 2015; 4: 21.

Authors: Alireza Mehridehnavi and Hossein Mehridehnavi

An Automatic Algorithm for Segmentation of the Boundaries of Corneal Layers in Optical Coherence Tomography Images using Gaussian Mixture Model

Journal: Journal of Medical Signal and Sensors. 2014 Jul-Sep; 4(3): 171-180

Authors: Mahdi Kazemian Jahromi, Raheleh Kafieh, Hossein Rabbani, Alireza Mehri Dehnavi, Alireza Peyman, Fedra Hajizadeh, and Mohammadreza Ommani.

Detection and Segmentation of Erythrocytes in Blood Smear Images Using a Line Operator and Watershed Algorithm

Journal: Journal of Medical Signal and Sensors. 2013 Jul-Sep; 3(3): 164-171

Authors: Hassan Khajehpour, Alireza Mehri Dehnavi, Hossein Taghizad, Esmat hajehpour,¹ and Mohammadreza Naeemabadi.

Minimal gene selection for classification and diagnosis prediction based on gene expression profile

Journal: Advanced in Biomedical Research, 2013 mar 6

Authors: Alireza Mehridehnavi and Lia Ziae

A Comprehensive Comparison of Different Clustering Methods for Reliability Analysis of Microarray Data

Journal: Journal of Medical Signal and Sensors. 2013 Jan-Mar; 3(1): 22-30..

Authors: Rahelh Kafieh and Alireza Mehridehnavi

The impact of teaching experience on interview performance of different candidates of basic medical sciences in PhD admission

Journal: Future of Medical Education Journal, Volume 3, Issue 1, March 2013, Page 21-25
Authors: Alireza Mehridehnavi

Using Protein Interaction Database and Support Vector Machines to Improve Gene Signatures for Prediction of Breast Cancer Recurrence

Journal: Journal of Medical Signal and Sensors 2013 Apr-Jun; 3(2): 87–93
Authors: Alireza Mehri Dehnavi, Mohammad Reza Sehhati, Hossein Rabbani and SH Javanmard

Hybrid Method for Prediction of Metastasis in Breast Cancer Patients Using Gene Expression Signals

Journal: Journal of Medical Signal and Sensors 2013 Apr-Jun; 3(2): 79–86
Authors: Alireza Mehri Dehnavi, Mohammad Reza Sehhati, and Hossein Rabbani

The Role of Different Subject Materials on the Admission of PhD Candidates of Epidemiology, Bacteriology and Parasitology during 2006-2007

Journal: Future of Medical Education Journal 2013, 3 (1), 21-25
Authors: Alireza Mehridehnavi, and H. Mehridehnavi.

Analysis of foveal avascular zone for grading of diabetic retinopathy severity based on curvelet transform

Journal: Graefe's Archive for Clinical and Experimental Ophthalmology, Online First™, 4 July 2012
Authors: Shirin Hajeb Mohammad Alipour, Hossein Rabbani, Mohammadreza Akhlaghi, Alireza Mehri Dehnavi and Shaghayegh Haghjooy Javanmard

Automatic optic disk boundary extraction by the use of curvelet transform and deformable variational level set model

Journal: Pattern Recognitin, Volume 45, Issue 7, July 2012, pages 2832-2842
Authors: Mahdad Esmaeili, Hossein Rabbani, Alireza Mehri Dehnavi

Investigation of the BNP Level Changes in Blood Stream in Different Modes and Lead Locations after Pacemaker Implementation

Journal: Journal of Medical Signal and Sensors Jan-Mar 2012: Vol 2, Issue 1
Authors: Ali Reza Mehri Dehnavi,, Afshin Fakhrpour, Mohamad Bagher Tavakoli, Mohamad Hossein Nikoo

Biclustering of Coherent Time Series in Microarray Data

Journal: Journal of Isfahan Medical School, Vol 30, No 208, 2nd week of Dec. 2012
Authors: Hossein Taghizad, Alireza Mehridehnavi, Majid Mohammadbeigi

Registration of MRI and CT Scan Images with the Use of Mutual Information

Journal: Journal of Isfahan Medical School, Vol 30, No 191, 1st week of August 2012
Authors: Alireza Mehridehnavi and Ramezanali Hatefvahid

Using Principal Component Analysis to Recognize Farsi Alphabetic Characters in Printed Scripts

Journal: Journal of Isfahan Medical School, Vol 29, No 174: Special Issue (Biomedical Engineering) 2012

Authors: Shahrouz Gashmard, Alireza Mehri Dehnavi, Hossein Rabbani

Ischemia detection by electrocardiogram in wavelet domain using entropy measure

Journal: Journal of research in Medical Sciences, November 2011; Vol 16, No 11

Authors: Hossein Rabbani, Mohammad Parsa Mahjoob, Eiman Farahabadi, Amin Farahabadi, Alireza Mehri Dehnavi

Arrhythmia detection based on Morphological and time-frequency Features of t-wave in Electrocardiogram

Journal: Journal of Medical Signal and Sensors May-Aug 2011: Vol 1, Issue 2

Authors: Elham Zeraatkar, Saeed Kermani, Alireza Mehridehnavi, A. Aminzadeh, E. Zeraatkar, Hamid Sanei

Detection and classification of cardiac ischemia using vectorcardiogram signal via neural network

Journal: Journal of research in Medical Sciences, December 2011: VOL 16, No 2

Authors: Ali Reza Mehri Dehnavi, Iman Farahabadi, Hossain Rabbani, Amin Farahabadi, Mohamad Parsa Mahjoob, Nasser Rajabi Dehnavi

The Association between Interview and Written Exam in Graduate Student Admission of Medical Education and Rehabilitation Management

Journal: Iranian Journal of Medical Education. 2009;8(2)

Authors: Alireza Mehridehnavi

Automatic Detection of Cephalometric Landmarks on Cephalograms of Patients Referring to Isfahan University of Medical Sciences

Journal: Iranian Journal of Biomedical Engineering. 2008;2(3)

Authors: Rahele Kafieh1, Alireza Mehri2*, Saeed Sadri3 and Hamid Raji4

Relationship between consciousness and electrical activity of brain neurons in patients undergoing aortic valve replacement surgery

Journal: Journal of gorgan university. 2008;10(2):1-6

Authors: Mehri Dehnavi AR, Amirfattahi R, Mansoori M, Negahbani E, Ahmadi B

Classification of the different cancerous animal tissues on the basis of their ^1H NMR spectra data using different types of Artificial Neural Networks

Journal: RPS Research in Pharmaceutical Sciences. 2007;2(2)

Authors: A.R. Mehridehnavi

Comparison of Different Invasive type of Refractive Anomalies Operation

Journal: Asian journal of Experimental Sciences. 2007;21(2):415-428

Authors: Saeed Shnehsazzadeh, Ali Salehi, and Alireza Mehri.

Gene Finding Using HMM In Prokaryotic Genomes

Journal: Modern Genetics Journal. 2007;1(1):47-54

Authors: Malekshahi R, Mehridehnavi A.R, Beigi M, Poorhosein M.

Investigation and comparison of recording time of steady state evoked potentials using three methods of Kalman, Ziarani and adaptive

Journal: Audiology, Tehran University of Medical Sciences. 2007;16(1)

Authors: Ali Reza Mehri, Dariush ShahbaziGahrouei, and Leila Ghaedi

Application of Artificial Neural Networks in Cancer Classification and Diagnosis Prediction of a Subtype of Lymphoma Based on Gene Expression Profile

Journal: Journal of Research in Medical Sciences. 2006;11(1):13-17

Authors: L Ziae, AR Mehri, M Salehi

B) CONFERENCES

Wavelet-based Convolutional Mixture of Experts model: An application to automatic diagnosis of abnormal macula in retinal optical coherence tomography images

Conference: Machine Vision and Image Processing (MVIP), 2017 10th Iranian Conference on

Authors: Reza Rasti, Alireza Mehridehnavi, Hossein Rabbani, Fedra Hajizadeh

Alignment of optic nerve head optical coherence tomography B-scans in right and left eyes

Conference: Image Processing (ICIP), 2017 IEEE International Conference on

Authors: Marzieh Mokhtari, Hossein Rabbani, Alireza Mehri-Dehnavi

Circlet based framework for optic disk detection

Conference: Image Processing (ICIP), 2017 IEEE International Conference on

Authors: Omid Sarrafzadeh, Hossein Rabbani, Alireza Mehri Dehnavi

Exact localization of breakpoints of Retinal pigment epithelium in Optical Coherence Tomography of Optic Nerve Head

Conference: Engineering in Medicine and Biology Society (EMBC), 2017 39th Annual International Conference of the IEEE

Authors: M Mokhtari, H Rabbani, A Mehri-Dehnavi, R Kafieh

A simple and accurate method for white blood cells segmentation using K-means algorithm

Conference: Signal Processing Systems (SiPS), 2015 IEEE Workshop

Authors: Omid Sarrafzadeh, Alireza Mehri Dehnavi, Hossein Rabbani, Ardesir Talebi

Posterior ECG: Producing a New Electrocardiogram Signal from Vectorcardiogram Using Partial Linear Transformation.

Conference: BIBE 2012, Larnaca, Cyprus, November 11-13, 2012.

Authors: AR Mehridehnavi, N. Salehpour, H. Rabbani, M. Behjati

Partial linear transformation between Frank XYZ leads vectorcardiogram and 15 lead electrocardiogram signals.

Conference: BIBE 2012, Larnaca, Cyprus, November 11-13, 2012.
Authors: AR Mehridehnavi, N. Salehpour, H. Rabbani, M. Behjati

A Pre-Compensation Algorithm for Different Optical Aberrations Using an Enhanced Wiener Filter and Edge Tapering

Conference: ISSPA 2012

Authors: Soheil Mohammadpour, Alireza Mehridehnavi, Hossein Rabbani, and Vasudevan Lakshminarayanan

Forming Projection Images From Each Layer of Retina Using Diffusion Map Based OCT Segmentation

Conference: ISSPA 2012

Authors: Jalil Jalili, Hossein Rabbani, Mohammadreza Akhlaghi, Raheleh Kafieh, Alireza Mehridehnavi

Improved pre compensation method to Enhance computer interaction in visually impaired patients with higher order ocular aberrations

Conference: RIO 2012, Tehran, Iran

Authors: Soheil Mohammadpour, Alireza Mehridehnavi, Hossein Rabbani

Ischemia detection via dynamic time warping and fuzzy rules

Conference: BHI 2012: 166-169

Authors: Amin Farahabadi, Eiman Farahabadi, Hossein Rabbani, Mohammad Parsa Mahjoub, Alireza Mehri Dehnavi

Clustering Microarray Gene Expression Data Using Fuzzy C-means and DTW Distance

Conference: International Conference on Computer Technology and Development, 3rd (ICCTD 2011)

Authors: H. Taghizad, A. Mehridehnavi

Portable device for real-time ECG recording and telemetry

Conference: 24th Canadian Conference on Electrical and Computer Engineering (CCECE), 2011

Authors: Naeemabadi, M.R.; Chomachar, N.A.; Khalilzadeh, M.A.; Dehnavi, A.M

An Automatic Solution for Unwanted Black Area Elimination in Photocopy Machines

Conference: 7th Iranian conference on Machine vision and Image Processing (MVIP2011) Tehran, Iran, 2011.

Authors: Mohammad Reza Nain Abadi, Parissa Rabbani, Alireza Mehri, Rahele Kafieh

Brain Tumor Boundary Detection in MRI Image Using Active Contours and Morphology Filters

Conference: ICSAP 2011(3rd International Conference on Signal aquisition and Processing) Singapore

Authors: Rasool Baghbani Khezerloo, Masoomeh Ashoori Rad and Alireza Mehridehnavi

Ischemia Detection via Dynamic Time Warping and Fuzzy Rules

Conference: The World Congress on Engineering and Technology (CET)2011, China.

Authors: E. Farahabadi, A Farahabadi, A. Mehri Dehnavi, H. Rabbani, M Parsa Mahjoub.

Application of wavelet and fractal-based methods for detection of microcalssification in mammograms: a comparative analysis using neural network

Confrence: International Conference on Graphic and Image Processing (ICGIP 2011)

Authors: Noubari, Hossein Ahmadi; Dehnavi, Alireza Mehri;Rabbani, Hossein

The impact of the fulfillment of ration factor on interview score to the admission of basic medical sciences PhD students of different ration categories in the year 86-87

Conference: Medical Education, 2011,Mashad

Author: Alireza Mehridehnavi

A Comparative Study of the Output Correlations between Wavelet Transform, Neural and Neuro Fuzzy Networks and BIS Index for Depth of Anesthesia

Conference: IEEE Symposium on Industrial Electronics and Applications 2010.

Authors: M. Ghanatbari, A. Mehri Dehnavi, H. Rabbani, A. Mahuri

A new curvelet transform based method for extraction of red lesions in digital color retinal images

Conference: IEEE International Conference on Image Processing (ICIP)

Authors: M. Esmaili, H. Rabbani, A.R. MehriDehnavi, A. Dehghani

An entropy-based method for ischemia diagnosis using ECG signal in wavelet domain

Conference: ICIP 2010 (IEEE 10th International Conference on Signal Processing)

Authors: Farahabadi, E. Farahabadi, A. Rabbani, H. Dehnavi, A.M. Mahjoob, M.P.

Detection of Cancerous Zones in Mammograms using Fractal Modeling and Classification by Probabilistic Neural Network

Conference: 17th Iranian Conference of Biomedical Engineering (ICBME2010)

Authors: Alireza Shirazi Noodeh, Hossein Rabbani, Alireza Mehri Dehnavi, Hossein Ahmadi Noubari

Improving ORS Detection for Artifacts Reduction

Conference: 17th Iranian Conference of Biomedical Engineering (ICBME2010)

Authors: Elham Zeraatkar, Saeed Kermani, Alireza Mehridehnavi and Arash Aminzadeh

A NOVEL METHOD FOR GENE PREDICTION IN PROKARYOTIC GENOMES

Conference: 4-TH MOSCOW CONFERENCE ON COMPUTATIONAL MOLECULAR BIOLOGY(MCCMB'09). 2009)

Authors: RAHIM MALEKSHAH1, ALIREZA MEHRIDEHNAVI2, HEDAYATOLAH HOSSEINI1,MAJID BEIGI2

Automatic Optic Disk Detection by the Use of Curvelet Transform

Conference: ITAB' 2009. 2009

Authors: Mahdad Esmaeili1, Hossein Rabbani1, Alireza Mehri Dehnavi1 and Alireza Dehghani2

Estimating the Depth of Anesthesia by Applying Sub Parameters to an Artificial Neural Network during General Anesthesia

Conference: ITAB' 2009. 2009

Authors: Mehrab Ghanatbari1, Alireza Mehri Dehnavi1, Hossein Rabbani1 and A. R. Mahoori

Extraction of Retinal Blood Vessels by Curvelet Transform

Conference: IICPIP-2009 IEEE International Conference on Image Processing. 2009;

Authors: Mahdad Esmaili, Hossein Rabbani, Alireza Mehri, Alireza Dehghani

Noise Removal from Electrocardiogram Signal Employing an Artificial Neural Network in Wavelet Domain

Conference: ITAB' 2009. 2009;

Authors: Eiman Farahabdi1, Amin Farahabadi1, Hossein Rabbani1, M. Parsa Mahjoob2 and Alireza Mehri Dehnavi

Discrimination of Bony Structures in Cephalograms for Automatic Landmark Detection

Conference: 13th International CSI Computer Science. 2008;

Authors: rahele kafieh - saeed sadri - alireza mehri - hamid raji

Electroencephalogram Fractal Dimension as a Measure of Depth of Anesthesia

Conference: Ictta2008. 2008;

Authors: Ehsan Negahbani, Rasool Amirkatahi, Alireza Mehridehnavi, Mohammad Rouzbeh

Improving the Results of Automatic Landmark Detection in Cephalometry with Extraction of Bony Structures.

Conference: ICEE2008: 16th Iranian Conference on Electrical Engineering. 2008;

Authors: Rahele Kafieh, Saeed Sadri and Alireza Mehri.

Analysis of electroencephlogram, revealing the processing algorithm of depth of anesthesia monitor

Conference: IDMC'07 20-21 Nov.2007. 2007;

Authors: E. Negahbani, R. Amirkattahi, B. Ahmadi, A.R. MehriDehnavi, and M. Rouzbeh

Automatic Landmark Detection in Cephalometry Using a Modified Active Shape Model with Sub Image Matching

Conference: International Conference on Machine Vision ICMV 2007. 2007

Authors: Rahele kafieh, Alireza Mehri and Saeed Sadri.

Complications of pacemakers

Conference: International Congress of the Iranian society of Cardiac Surgeons in collaboration with German society of Cardiac Surgeons. 2007;

Authors: A. Fakhrpour, A.R. Mehridehnavi

Detection of Ventricular Arrhythmias Using Root Location in A.R-Modeling.

Conference: ICICS 2007. 2007;

Authors: R. Kafieh, R. Amirfattahi, A.R. Mehri

Using a Combination of Model Based and Intelligent methods in Automatic Landmark Detection in Cephalometry

Conference: The 4th International Conference on Innovations in Information Technology. 2007;

Authors: R.Kafieh, S. Sadri, A.R. Mehri, H. Raji and M.R. Feizi

An algorithm that obtains data for self-training algorithms to find genes in prokaryotic genome

Conference: ICEE-2006. 2006;

Authors: Rahim Malekshahi1, Majid Beigi2, Alireza Mehri Dehnavi3

Comparison of artificial neural networks with statistical classifiers on classification of 1H NMR spectra

Conference: International Conference on Computer Applications in Electrical Engineering Recent Advances. 2002;

Authors: A.R. Mehridehnavi

Data dimentionality reduction using F-Statistics of the IH NMR Spectra of the animal tissue

Conference: The Fifth Iranian Congress of Medical Physics. 2002;

Authors: A.R. Mehridehnavi

Heat Distribution Modeling Of CO2 Laser Effects On Tissue by Finite Element Method

Conference: (FICR 2000). 2000;

Authors: AR Mehridehnavi, F Soltani

Tumor detection with NMR spectroscopy: current state and future prospects for the application of neural networks

Conference: ICNN97 Pattern Recognition & Image Processing. 1997;

Authors: P. J. G. Lisboa, W. El-Deredy, N. M. Branston and A.R. Mehri-Dehnavi

Variable selection using the Wald test in MLP for classification of 1H NMR spectra

Conference: Proc. of ICEE - 97. 1997;

Authors: A.R. Mehridehnavi and P.J.G. Lisboa

Can the P-value test Extended to the MLP?

Conference: Proceedings of the 1996 World Congress on Neural Networks: World Congress on Neural Networks. 1996;

Authors: P.J.G. Lisboa A.R. Mehri-Dehnavi

Sensitivity methods for variable selection using the MLP

Conference: Proc. of the International Conference on Neural Networks for Identification, Control, Robotics and Signal processing. 1996;
Authors: P.J.G. Lisboa and A.R. Mehridehnavi

Tumor detection from Nuclear Magnetic Resonance spectra using neural networks

Conference: Proc. of the International Conference on neural networks and expert systems in medicine and Health care, NNESMED-96. 1996;
Authors: P.J.G. Lisboa, W. El-Deredy, N.M. Branston and A.R. Mehridehnavi

Application of artificial neural networks to the interpretation of NMRS of animal tissue

Conference: Proc. of ICEE-95. 1995;
Authors: A.R. Mehridehnavi, P.J.G. Lisboa and P.A. Martin

Opening Pandora's box: A logarithmic sensitivity matrix for the interpretation of neural networks

Conference: Proc. of The International Conference on Neural Networks and Expert Systems In Medicine and Health care. 1994;
Authors: P.J.G. Lisboa , A.R. Mehridehnavi and P.A. Martin

The classification of NMR spectra of cancer tissue using Neural Networks

Conference: Proc. of ICEE_94 May 17-20, 1994 pp20-28. 1994. 1994;
Authors: A.R. Mehridehnavi, P.J.G. Lisboa and P.A. Martin

The interpretation of supervised neural networks

Conference: Proc. of workshop on Neural Network Application and tools by IEEE COMPUTER SOCIETY PRESS. 1993;
Authors: P.J.G. Lisboa, A.R. Mehridehnavi and P.A. Martin

C) BOOKS

Artificial Neural Networks - Methodological Advances and Biomedical Applications

Chapter 15, title "Estimation the Depth of Anesthesia by the Use of Artificial Neural Network"
Publisher: InTech, Publishing date: April 2011
Authors: Hossein Rabbani, Alireza Mehri Dehnavi and Mehrab Ghanatbari

Discrimination of Bony Structures in Cephalograms for Automatic Landmark Detection

Publisher: Springer 2009, book chapter part of Springer Series, communications in Computer and Information Sciences.
Authors: Rahele Kafieh, Saeed sadri, Alireza mehri, Hamid raji

Visual Optics(in Persian)

Publisher: Isfahan University of Medical Sciences. 2007; (in Farsi)
Author: Alireza Mehridehnavi

THESES SUPERVISION**PHD THESES**

2014 - 2017

Proposing HIV-1 growth inhibitor compounds using Nonlinear Deep Learning Modeling and Ligand-Protein Interaction
Supervisors: A.R. Mehridehnavi, A. Fasshi
Place: Isfahan University of Medical Sciences

2014 - 2016

Classification of Hep-2 Cells in Fluorescence Microscopic Images Using Dictionary Learning
Supervisors: A.R. Mehridehnavi, A. Talebi
Place: Isfahan University of Medical Sciences

2013 - 2016

Automatic Drusen Detection from OCT images for Age Related Maculopathy Diagnosis Using 3D Curvelet Transform
Supervisors: A.R. Mehridehnavi, H. Rabbani
Place: Isfahan University of Medical Sciences

2012 - 2015

Seeking an appropriate feature extraction method for breast cancer recurrence prediction based on microarray gene expression data.
Supervisors: A.R. Mehridehnavi, H. Rabbani
Place: Isfahan University of Medical Sciences

MSC. THESES

2015 - 2016

A model of Binocular Rivalry Based On Neural Network
Supervisors: A.R. Mehridehnavi
Place: Isfahan University of Medical Sciences

2015 - 2016

Evaluation the asymmetry of cup to disk ratio in left and right eyes of normal subjects
Supervisors: Hossein Rabbani, Alireza Mehridehnavi
Place: Isfahan University of Medical Sciences

2014 - 2015

Evaluation of Rivalry Etiology by different diagnostic methods.
Supervisors: A.R. Mehridehnavi, M.R. Sehati, A. Vard
Place: Isfahan University of Medical Sciences

2014 - 2015

Automation of Defect detection by plasmid DNA image methods. multiple myeloma in Microscopic bone marrow aspiration images
Place: Isfahan University of Medical Sciences
Supervisors: A.R. Mehridehnavi, A. Talebi
Place: Isfahan University of Medical Sciences

2014 - 2015

Dimensionalization of Rivalry in the prediction by different display methods. recurrence by using topological features of the gene network constrained Isfahan University data
Place: Isfahan University of Medical Sciences
Supervisors: A.R. Mehridehnavi, M.R. Sehati(Advisor)

	<i>Place:</i> Isfahan University of Medical Sciences
2013 - 2014	Automatic segmentation of corneal layer boundaries in OCT images and obtaining a 3D map of entire thickness of cornea and inner layers <i>Supervisors:</i> H. Rabbani, A.R. Mehridehnavi <i>Place:</i> Isfahan University of Medical Sciences
2012 - 2013	Comparison of Serpent, Twofish and Rijndael encryption methods in order to retinal images encryption <i>Supervisors:</i> A.R. Mehridehnavi, H. Rabbani <i>Place:</i> Isfahan University of Medical Sciences
2012 - 2013	Evaluation of Retinopathy in fundus images for subjects in detection of Diabetes Retinopathy fundus images <i>Supervisors: Hossein Rabbani, Alireza Mehridehnavi (me as Supervisor)</i> <i>Place:</i> Medical school
2011 - 2012	Pre-compensation method based on total variation deconvolution and winer deconvolution improving higher order aberration vision <i>Supervisors: A.R. Mehridehnavi, H. Rabbani</i> <i>Place:</i> Isfahan University of Medical Sciences
2011 - 2012	Clustering Microarray Gene Expression Data Using Fuzzy C-means and DTW Distance <i>Supervisors: Alireza Mehridehnavi, M. Beigi</i> <i>Place:</i> Isfahan University of Medical Sciences
2011 - 2012	Formatation and fusion of projection images from 11 layers of retina using statistical indicators to obtain an image with appropriate contrast ... <i>Supervisors: Hossein Rabbani, Alireza Mehridehnavi.</i> <i>Place:</i> Isfahan University of Medical Sciences
2010 - 2011	Extraction Of Retinal Image Features In Curvelet Domain For Automatic Detection Of Diabetic Retinopathy <i>Supervisors: Alireza Mehridehnavi, Hossein Rabbani</i> <i>Place:</i> Isfahan University of Medical Sciences
2008 - 2009	Design and Implementation of a CMRI-Compatible Moving Left Ventricle Phantom For the Evaluation of the Image Analysis Algorithms <i>Supervisors: A.R. Mehridehnavi, S. Kermani (me as Supervisor)</i> <i>Place:</i> Isfahan university of Medical Sciences
2008 - 2008	Determining the relationship between cardiac pacemaker pacing percentage with the increase of BNP level in the blood of

patients who are under medical treatment with cardiac pacemaker

Supervisors: Alireza Mehri Dehnavi, Mohammad Bagher Tavakoli, Mohammad Hossein Nikoo (me as Supervisor)

Place: Isfahan

2007 - 2008 **Estimating Depth of Anesthesia Based on Nonlinear Analysis**
Supervisors: A.R. Mehridehnavi, H. Rabbani
Place: Isfahan University of Medical Sciences

2007 - 2008 **Evaluation and analysis of cephalogram images for automatic landmark detection**
Supervisors: A.R. Mehridehnavi, H. Raji
Place: Isfahan university of Medical Sciences

2006 - 2006 **Design and development an algorithm for the detection of genes from prokaryotic genome**
Supervisors: A.R. Mehridehnavi and M. Pourhossein (me as Supervisor)

2005 - 2006 **Design and Development of Automatic Lensometer**
Supervisors: A.R. Mehridehnavi

2005 - 2006 **Evaluation of the adaptive methods on hearing assessment of newborns on the base of the SSAEP**
Supervisors: A.R. Mehridehnavi and D. Shahbazi

2004 - 2005 **Application of Artificial Neural Networks in Cancer Classification and Diagnosis Prediction of a Subtype of Lymphoma Based on Gene Expression**
Supervisors: AR Mehridehnavi, M Salehi

2002 - 2002 **Registration of CT-MR Images of the Brain by Mutual Information**
Supervisors: AR Mehridehnavi.

RESEARCH INTERESTS

Biomedical instrumentation, Bioinformatics, and Medical Optics

TACHING EXPERIENCE

Course name	Level	Years
Biomedical Instrumentation	MSC (Medical Engg)	From 2002 to 2011(x9)
Optics in Bioengineering	MSC (Medical Engg)	2009, 2010 and 2011
General Electronics	MSC (Medical Phys)	2009

Bioinformatics	PhD(Medical Engg)	2010 and 2011
Bioinformatics	MSC(Medical Engg)	2009, 2010 and 2011
Essential Physics of Medical Imaging	MSC (Medical Phys)	2002, 2003 and 2004
Diagnostic Ultrasounds	MSC (Medical Phys)	1998, 1999 and 2001
Machine Vision	MSC (Medical Engg)	From 2002 to 2007 every year(x6)
Bioelectricity and Diathermy	MSC (Medical Phys)	1998, 1999, 2001 and 2002
Digital Image Processing	MSC (Medical Engg)	2005 and 2006
Medical Imaging	PhD (Medical Phys)	2008
Medical Imaging systems	MSC (Medical Engg)	2004, 2005 and 2006
Medical physics	Medical Students	1999, 2008 to 2011(x5)
Dental Physics	Dental Students	1999, 2009,2010 and 2011
Special Issues in Medical Engg.	MSC (Medical Engg)	2007 and 2008
Medical Equipments Basics	PhD (Medical Phys)	2007
Biological System Modeling	MSC (Medical Engg)	2003
Light Application in Medicine	MSC (Medical Phys)	From1998 to 2010 (x10)
Equipments for Diagnostic Radiology	BSC (Radiology)	From1999 to 2011 (x18)
General Physics	Different branches	From 1997 to 2011 (x26)
Special Physics for Health	Health Physics	From 1997 to 2005 (x6)
Diagnostic Radiation physics	Radiology	From 2002 to 2004 (x4)
Medical Equipment Safety Management	MSC (Medical Engg)	2008
Elementary physics	Different branches	From 1998 to 2001
Technical Drawing	Rehabilitation	1997 and 1998
Programming in C++	BSC Computer	1996 and 1997

HONORS, PRIZES AND AWARDS

1994 **Award of ORS scholarship (OVERSEAS RESEARCH STUDENT AWARD SCHEME)**
 From 5157 pound per year

PROFESSIONAL EXPERIENCES

- 1- Head of Medical Engineering(Bioelectric) Dept. 2013-2017
- 2- Head of Medical Physics and Engineering Dept. 1998-2006
- 3- The member of the Board of the M.Sc. and Ph.D. Exam of Medical Engineering in Ministry of Health and Medical Sciences Of Iran since 1998
- 4- Member of the Curriculum Committee of medical Engineering of the Ministry of the Health and Medical Sciences since 2000.
- 5- Member of Chancellor Committee of Sepahan University of Engineering since 2006
- 6- Chairman of the Journal of Medical Signals and Sensors since 2011