# Reza Aghaizadeh Zoroofi, .

School of Electrical and Computer Engineering

University of Tehran

Tel (Direct): +98 (21)02182084302

email: zoroofi@ut.ac.ir

Website:

**EDUCATION**

 **In Medical Image Processing**Osaka University, JAPAN 1998-null-yesr-char
**Ph.D In Medical Image Processing**Osaka University, JAPAN 1994-1998
**M.Sc In Electrical Engineering - Telecommunication**Khajeh Nasireddin Toosi University of Technology 1989-1991
**B.Sc In Electrical Engineering - Electronic**Amirkabir University of Technology 1984-1989

**PUBLICATIONS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1622** | **25** | **35** | **44** | **0** |
| Citations | h-Index | Article | Conference | Book |

***Articles***

**1.** Automatic Musculoskeletal Segmentation in Medical Images. مولایی ملیحه, MohammadNejad Eisa, Aghaizadeh Zoroofi Reza (2021)., Journal of Police Medicine, 10(3).

**2.** Thigh muscle segmentation using a hybrid FRFCM‐based multi‐atlas method and morphology‐based interpolation algorithm. Molaie Malihe, Aghaizadeh Zoroofi Reza (2021)., IET Image Processing, 15(11), 2572-2579.

**3.** A comprehensive review of endoscopic image processing: methods, applications Clinical, advantages and disadvantages. Biniaz Abbas, Aghaizadeh Zoroofi Reza (2020)., Journal of Machine Vision and Image Processing, هفتم(دوم).

**4.** HCA: Hierarchical Compare Aggregate model for question retrieval in community question answering. Zahedi Mohammad Sadegh, Rahgozar Maseud, Aghaizadeh Zoroofi Reza (2020)., INFORMATION PROCESSING & MANAGEMENT, 57(6), 102318.

**5.** A Knowledge-Based Modality-Independent Technique for Concurrent Thigh Muscle Segmentation: Applicable to CT and MR Images. مولایی ملیحه, Aghaizadeh Zoroofi Reza (2020)., JOURNAL OF DIGITAL IMAGING, 33(5), 1122-1135.

**6.** Automatic reduction of wireless capsule endoscopy reviewing time based on factorization analysis. Biniaz Abbas, Aghaizadeh Zoroofi Reza, Masud Reza Sohrabi (2020)., Biomedical Signal Processing and Control, 59(101897), 101897.

**7.** Fully automatic estimation of pelvic sagittal inclination from anterior-posterior radiography image using deep learning framework. Jodeiri Sheikhzadeh Ata Ollah, Aghaizadeh Zoroofi Reza, Hiasa Yuta, Takao Masaki, Sugano Nobuhiku, Sato Yoshinobu, Otake Yoshito (2020)., COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, 184(105282), 105282.

**8.** Integrated system for automatic detection of representative video frames in wireless capsule endoscopy using adaptive sliding window singular value decomposition. Biniaz Abbas, Abdolali Fatemeh, Aghaizadeh Zoroofi Reza (2019)., IET Image Processing, 2019(1), 1-7.

**9.** Automatic Detection of Salient Video Frames from Wireless Capsule Endoscopy using Adaptive Singular Value Decomposition. Biniaz Abbas, [] [], Aghaizadeh Zoroofi Reza, HajiMaghsoudi Omid, Sato Yoshinobu (2019)., Biomedical Engineering, 12(4), 1-14.

**10.** A novel image-based retrieval system for characterization of maxillofacial lesions in cone beam CT images. [] [], Aghaizadeh Zoroofi Reza, Otake Yoshito, Sato Yoshinobu (2019)., International Journal of Computer Assisted Radiology and Surgery, 14(5), 785-796.

**11.** Automated classification of maxillofacial cysts in cone beam CT images using contourlet transformation and Spherical Harmonics. [] [], Aghaizadeh Zoroofi Reza, Otake Yoshito, Sato Yoshinobu (2017)., COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, 139(2017), 197-207.

**12.** Automatic segmentation of mandibular canal in cone beam CT images using conditional statistical shape model and fast marching. [] [], Aghaizadeh Zoroofi Reza, Abdolali Maryam, Yokota Futoshi, Otake Yoshito, Sato Yoshinobu (2016)., International Journal of Computer Assisted Radiology and Surgery, 12(4), 581-593.

**13.** Automatic segmentation of maxillofacial cysts in cone beam CT images. [] [], Aghaizadeh Zoroofi Reza, Otake Yoshito, Sato Yoshinobu (2016)., COMPUTERS IN BIOLOGY AND MEDICINE, 72(2016), 108-119.

**14.** Shape-based acetabular cartilage segmentation: application to CT and MRI datasets. Roshanitabrizi Pooneh, Aghaizadeh Zoroofi Reza, Yokota Futoshi, Sato Yoshinobu, nishi Takashi (2015)., International Journal of Computer Assisted Radiology and Surgery, 11(7), 1247-1265.

**15.** Hybrid artificial bee colony algorithem and image processing-based approach for fracture identification in image logs. Javid Mostafa, Memarian Hossein, Mazhari Seyed Mahdi, Aghaizadeh Zoroofi Reza, Tokhmchi Behzad, Khoshbakht Farhad (2015)., Geosciences Scientific Quarterly Journal, 24(96), 141-150.

**16.** Acetabular cartilage segmentation in CT arthrography based on a bone-normalized probabilistic atlas. Roshani Tabrizi Pooneh, Aghaizadeh Zoroofi Reza, Yokota Futoshi, Tamura Satoru, Nishii Takashi, Yoshinobu Sato (2014)., International Journal of Computer Assisted Radiology and Surgery, 1(ُُ1), 1-14.

**17.** Classification of Normal and Diseased Liver Shapes based on Spherical Harmonics Coefficients. باباپور فرشید, Aghaizadeh Zoroofi Reza, عباسپور تهرانی علی, Akhlaghpour Shahram, Yoshinobo Sato (2014)., JOURNAL OF MEDICAL SYSTEMS, 38(5), 1-9.

**18.** Quantification of Schooling Behavioral Responses of Rosy Barb (Puntius barbus) to Acute Decrease Temperature Fluctuations Using Computer Vision. Babaei Naiij Mahboobeh, Nematollahi Mohammad Ali, Layeqi Mohammad, Aghaizadeh Zoroofi Reza, Shahdoost Ghasem (2012)., Journal of Fisheries(Iranian Journal Of Natural Recources), 65(1), 1-13.

**19.** . محمدحسن طلب, Aghaizadeh Zoroofi Reza, علی عباسپور تهرانی فر, غلامرضا شیرانی (2009).

**20.** Fully Automatic Extraction of Panoramic Dental Images from CT - Scan Volumetric Data of the Head. Hossein Akhoondali, Aghaizadeh Zoroofi Reza, Gholamreza Shirani (2009)., JOURNAL OF APPLIED SCIENCES, 9(11), 2106-2114.

**21.** A Knowledge Based Technique for Liver Segmentation in CT data. Amir Hossein Foruzan, Aghaizadeh Zoroofi Reza, Masatooshi Hori, Yoshinobo Sato (2009)., COMPUTERIZED MEDICAL IMAGING AND GRAPHICS, 33(8), 567-587.

**22.** Sequential clustering - based facial feature extraction method for automatic creation of facial models from orthogonal views. Alireza Ghahari, Aghaizadeh Zoroofi Reza (2009)., International Journal of Information and Computer Security, 6(2), 43-47.

**23.** Classification of pomegranate fruit using texture analysis of MR images. Alireza Khoshroo, Keyhani Alireza, Aghaizadeh Zoroofi Reza, Rafiei Shahin, Zamani Zabihollah, Mohamad R Alsharif (2009)., International Agricultural Engineering Journal, 6(---), -.

**24.** A Hybrid Segmentation Framework for Computer-Assisted Dental Procedures. Mohammad Hosntalab, Aghaizadeh Zoroofi Reza, Ali Abbaspour Tehrani Fard, Gholamreza Shirani, Mohammad Reza Asharif, Mohammad Hosntalab, Abbaspour Tehrani Fard Ali, Gholamreza Shirani, Mohammad Reza Asharif (2009)., IEICE TRANSACTIONS ON INFORMATION AND SYSTEMS, E92-D(10), 2253-2263.

**25.** Rapid Automatic Segmentation and Visualization of Teeth in CT - Scan Data. Hossein Akhoondali, Aghaizadeh Zoroofi Reza, Gholamreza Shirani (2009)., JOURNAL OF APPLIED SCIENCES, 9(11), 2031-2044.

**26.** A hybrid technique for thickness - Map visualization of the hip cartilage in MRI. Mahdieh Khanmohammadi, Aghaizadeh Zoroofi Reza, Takashi Nishii, Hisashi Tanaka, Yoshinobu Sato (2009)., IEICE TRANSACTIONS ON ELECTRONICS, 92-D(---), 2253-2263.

**27.** Automated Dental Recognition By Wavelet Descriptors in CT Multi - Slices Data. Maryam Momeni, Aghaizadeh Zoroofi Reza (2008)., International Journal of Computer Assisted Radiology and Surgery, 3(6), 533-542.

**28.** . پونه روشنی تبریزی, Aghaizadeh Zoroofi Reza (2008)., Biomedical Engineering, 2(3), 247-266.

**29.** Segmentation of teeth in CT volumetric dataset by panoramic projection and variational level set. Mohammad Hosntalab, Aghaizadeh Zoroofi Reza, Ali Abbaspour Tehrani Fard, Gholamreza Shirani (2008)., International Journal of Computer Applications in Engineering Sciences, 3(3-4), 257-265.

**30.** . سیده شهربانو فلاحیه حمید پور, علیرضا احمدیان, Aghaizadeh Zoroofi Reza, محمدعلی شعبانی صمغ آبادی (2007).

**31.** . پریسا درویس زاده ورچه ای, Aghaizadeh Zoroofi Reza, Nili Ahmad Abadi Majid (2006).

**32.** Liver segmentation by intensity analysis and anatomical information in multi - slice CT images. Foruzan Ah, Aghaizadeh Zoroofi Reza, Masatoshi Hori, Yoshinobu Sato (2006)., International Journal of Computer Assisted Radiology and Surgery, 4(3), 287-297.

**33.** 3 - D quantification and visualization of vascular structures from confocal microscopic images using skeletonization and voxel - coding. H Soltanian Zadeh, A Shahrokni, Mm Khalighi, Zg Zhang, Aghaizadeh Zoroofi Reza, M Maddah, M Chopp (2005)., COMPUTERS IN BIOLOGY AND MEDICINE, 35(9), 791-813.

**34.** Wavelet Based Determination of Malignancy of the Pathological Images of the Prostate. Reza Farjam, Hamid Soltanian Zadeh, Aghaizadeh Zoroofi Reza (2004)., WSEAS Transactions on Electronics, -(---), -.

**35.** Automated segmentation of necrotic femoral head from 3D MR data. Aghaizadeh Zoroofi Reza, Y Sato, T Nishii, N Sugano, H Yoshikawa, S Tamura (2004)., COMPUTERIZED MEDICAL IMAGING AND GRAPHICS, 28(5), 267-278.

***Books***

***Conferences***

**1.** Automatic semantic segmentation based on Segunet architecture of MR images of the lumbar spine. Ansarifard Mohammad, Aghaizadeh Zoroofi Reza (2021)., 28th National Conference and 6th International Conference on Biomedical Engineering of Iran, 1400, 25-26 November, Tehran, Iran.

**2.** A new method to evaluate the nasal base view based on color coding. Ashoori Maryam, Aghaizadeh Zoroofi Reza, Sadeghi Mohmmad (2021)., 28th National Conference and 6th International Conference on Biomedical Engineering of Iran, 1400, 25-26 November, Tehran, Iran.

**3.** Heightmap Reconstruction of Macula on Color Fundus Images Using Conditional Generative Adversarial Networks. Tahghighi Peyman, Aghaizadeh Zoroofi Reza, Safi Sare, Ramezani Alireza, Ahmadieh Hamid (2021)., 2021 26th International Computer Conference, Computer Society of Iran (CSICC), Tehran, Iran, 3-4 March, Tehran, Iran.

**4.** Automatic segmentation of tooth using deep convolutional neural network in cone-beam CT images. Ghozatlou Omid, Aghaizadeh Zoroofi Reza (2020)., 1st Scientific Resaerch Conference Mechanics, Electrical, Computer and Engineering Sciences, 1-3 September, Baku, AZERBAIJAN.

**5.** A Rapid Technique for 3D Visulazation of Medical Images. مولایی ملیحه, Aghaizadeh Zoroofi Reza (2019)., Iranian Conference of Biomedical Engineering, 16-21 December, Tehran, Iran.

**6.** Fully automated detection of the mandibular canal in cone beam CT images using Lie group based statistical shape models. [] [], Aghaizadeh Zoroofi Reza, Biniaz Abbas (2018)., 2018 25th national and 3rd International Iranian Conference on Biomedical Engineering (ICBME), 20-22 November, Tehran, Iran.

**7.** Concurrent and Anatomical Knowledge Based Segmentation of Thigh Muscles using Level Sets in CT Images. Molaie Malihe, Aghaizadeh Zoroofi Reza (2018)., 25th Iranian Conference of Biomedical Engineering, 7-9 October, Qom, Iran.

**8.** Thigh Muscle Segmentation in CT Images. Fazli besheli Behrang, Aghaizadeh Zoroofi Reza (2018)., 25th Iranian Conference of Biomedical Engineering, 7-9 October, Qom, Iran.

**9.** Fully automated segmentation of maxillofacial lesions based on 3D feature descriptors and symmetry analysis. [] [], Aghaizadeh Zoroofi Reza (2018)., 26th Iranian Conference on Electrical Engineering (ICEE2018), 10-12 May, Tehran, Iran.

**10.** A Novel Technique Based on Cloud Picture Archiving and Communication for Trauma Application. Keshavarzi Ashkan, Aghaizadeh Zoroofi Reza, Khonsari Ahmad (2016)., International Conference on Iran Information Technology, 22-24 September, Tehran, Iran.

**11.** Segmentation of Mandibular Channel using Fuzzy Contentedness in CBCT images. Shakeri Saeid, Hasani Meisam, [] [], Aghaizadeh Zoroofi Reza (2016)., 22nd Iranian Conference on Biomedical Engineering(ICBME 2015), 30 January-1 February, Tehran, Iran.

**12.** Symmetry-based analysis of maxillofacial disorders in cone beam computed tomography. Hasani Meysam, Shakeri Saeid, [] [], Jahanifar Mostafa, Aghaizadeh Zoroofi Reza (2015)., 22nd Iranian Conference on Biomedical Engineering(ICBME 2015), 25-27 November, Tehran, Iran.

**13.** 3D Segmentation and Volumetric of Growth Plate of Radius Bone for Legal Age Determination in MRI Data Set. [] [], Fatehi Mansour, Aghaizadeh Zoroofi Reza (2015)., 22nd Iranian Conference on Biomedical Engineering(ICBME 2015), 25-27 November, Tehran, Iran.

**14.** Vectorization of Line Segments Based on Path Segmentation for 2D Animation. Khezri Emad, Aghaizadeh Zoroofi Reza (2015)., 1st International Conference of Information Technology, 19-20 November, Tehran, Iran.

**15.** Content based image retrieval for maxillofacial lesions. Abdolali Fatemeh, Fathi mansor, Aghaizadeh Zoroofi Reza (2015)., 9th Iranian Conference of Machine Vision and Image Processing, 1-3 November, Tehran, Iran.

**16.** Cage Based data Simulation: Application in Statistical Shape Based Atlas. [] [], Aghaizadeh Zoroofi Reza (2015)., Seventh National Iranian Conference of Electrical and Electronic Engineering, 19-20 August, Gonabad, Iran.

**17.** 3D Statistical Shape Models of Radius Bone for Segmentation in Multi Resolution MRI Data Sets. [] [], Fatehi Mansour, Bahrami Mohsen, Aghaizadeh Zoroofi Reza (2014)., 21st Iranian Conference on Biomedical Engineering (ICBME 2014), 26-28 November, Tehran, Iran.

**18.** Mandibular canal segmentation using 3D Active Appearance Models and shape context registration. Abdolali Fatemeh, Aghaizadeh Zoroofi Reza (2014)., Iranian Conference on Bio medical Engineering, 26-28 November, Tehran, Iran.

**19.** General multivariate linear modeling of mandible surface using SurfStat. Abdolali Fatemeh, Aghaizadeh Zoroofi Reza (2014)., Iranian Conference on Bio medical Engineering, 26-28 November, Tehran, Iran.

**20.** shape based 3D modeling of CT images based on spherical harmonics. Abdolali Fatemeh, Aghaizadeh Zoroofi Reza (2014)., 19 Annual Conference of Computer Society of Iran, 4-6 March, Tehran, Iran.

**21.** Single Image Ground Plane Estimation. Rahimi Mohammad, Moradisabzevar Manouchehr, Aghaizadeh Zoroofi Reza (2013)., IEEE International Conference on Image Processing, 15-18 September, Melbourne, Australia.

**22.** On the Performance of Model-View-Controller-Based Privacy Preservation Architecture for Personal Health Record Systems.. Farhangi Negin, Aghaizadeh Zoroofi Reza, Taghiyareh Fattaneh (2013)., The Annual International Conference on Science and Engineering in Biology, Medical and Public Health, 16-18 August, Jakarta, Indonesia.

**23.** Pomegranate Quality Evaluation Using Machine Vision. خشرو علیرضا, Keyhani Alireza, Aghaizadeh Zoroofi Reza, Zamani Zabihollah, Rafiei Shahin (2009)., Proc. Ist IS on Pomegranate, 4 October, Adama, Turky.

**24.** A New Approach to White Blood Cell Nucleus Segmentation Based on Gram-Schmidt Orthogonalization. Rezatofighi Sh., Soltanian Zadeh Hamid, SHARIFIAN R, Aghaizadeh Zoroofi Reza (2009)., ICDIP’2009, 7-9 March, Bangkok, Thailand.

**25.** Automatic Recognition of Basophils in Hematological Images. Rezatofighi Sh., Aghaizadeh Zoroofi Reza, Lucas Caro, SHARIFIAN R, Soltanian Zadeh Hamid (2008)., MVIP2008, 4-6 November, Tabriz, Iran.

**26.** Automatic Detection of Red Blood Cells in Hematological Images Using Polar8Transformation and Run-length Matrix. Rezatofighi Sh., Roodaki Alireza, Aghaizadeh Zoroofi Reza, SHARIFIAN R, Soltanian Zadeh Hamid (2008)., ICSP 2008, 25-28 October, Beijing, China.

**27.** Segmentation of Nucleus and Cytoplasm of White Blood Cells Using8Gram-Schmidt Orthogonalization and Deformable Models. Rezatofighi Sh., Aghaizadeh Zoroofi Reza, SHARIFIAN R, Soltanian Zadeh Hamid (2008)., ICSP 2008, 25-28 October, Beijing, China.

**28.** A New Automatic Border Detection Method for Lumen and Media-Adventitia boundaries in IVUS Images. Najafi Zahra, آرش تاکی, Setarehdan ُSeyed Kamaledin, Aghaizadeh Zoroofi Reza, نواب نصیر (2007)., Computer Assisted Radiology and Surgery (CARS2007), 27-30 June, Berlin, Germany.

**29.** Automatic Segmentation of Teeth in Multi-slice CT Images. کیهانی نژاد شیوا, Aghaizadeh Zoroofi Reza, Setarehdan ُSeyed Kamaledin, شیرانی ق (2006)., Proceedings of the 3rd Visual Information Engineering Conference, 26-28 September, Bangalore, India.

**30.** Design and Implementation of a Standard Radiology Information Management System Expandable to Other Clinical Information Systems. Sehati Mr., Aghaizadeh Zoroofi Reza, Soltanian Zadeh Hamid (2006)., 11th Annual Conference of Iran Computer Society, 1-3 February, Tehran, Iran.

**31.** MRI-SPECT data fusion for temporal lobe epilepsy surgery candidate selection. Ghannad-rezaie M., Soltanian Zadeh Hamid, Jafari-Khozani K, Siadat MR, Aghaizadeh Zoroofi Reza, Elisevich K.v. (2005)., SIP 2005, 15-17 August, Honolulu, United States Of America.

**32.** MRI-SPECT DATA FUSION FOR TEMPORAL LOBE EPILEPSY SURGERYCANDIDATE SELECTION. Ghannad-rezaie M., Soltanian Zadeh Hamid, جعفری کورش, سیادت محمدرضا, Aghaizadeh Zoroofi Reza, Elisevich Kost (2005)., 17th IASTED, 15-17 August, Hawaii, United States Of America.

**33.** Colonoscopy Image Processing. Faghih Roohi Shahrooz, Aghaizadeh Zoroofi Reza, Akhlaghpoor Sh, Soltanian Zadeh Hamid (2005)., International Conference on Information and Knowledge Technology, 1-3 June, Tehran, Iran.

**34.** New Method for Designing Object-Oriented Software Basis for Hospital Information Systems. Sehati Mr., Aghaizadeh Zoroofi Reza, Soltanian Zadeh Hamid (2005)., International Conference on Information and Knowledge Technology, 24-26 May, Tehran, Iran.

**35.** Automatic Grading of Pathological Images of Prostate Using Texture Analysis. Farjam R., Soltanian Zadeh Hamid, Aghaizadeh Zoroofi Reza (2005)., MVIP 2005, 24-25 February, Tehran, Iran.

**36.** Segmentation of Brian Tissue in MRI using Guassian Mixture Modeling. Zeydabadinezhad M., Aghaizadeh Zoroofi Reza, Soltanian Zadeh Hamid (2005)., MVIP 2005, 24-25 February, Tehran, Iran.

**37.** Tree-Structured Grading of Pathological Images of Prostate. Farjam R., Soltanian Zadeh Hamid, Aghaizadeh Zoroofi Reza, Jafari-Khozani K (2005)., SPIE Medical Imaging 2005: Image Processing, 12-17 February, San Diego, United States Of America.

**38.** Comparing Wavelet and Wavelet Packet Feature Spaces in MRSI Brain Tumor Characterization. Yazdanshahmorad Azadeh, Soltanian Zadeh Hamid, Aghaizadeh Zoroofi Reza (2004)., 2nd IEEE GCC Conference, 23-25 November, Bahrain.

**39.** Unsupervised Texture Segmentation Using Roughness in Wavelet Domain. Farjam R., Aghaizadeh Zoroofi Reza, Soltanian Zadeh Hamid (2004)., 2nd IEEE-GCC, 23-26 November, Bahrain, Bahrain.

**40.** Brian MR Image Segmentation by Guassian Mixture Modeling. Zeydabadinezhad M., Soltanian Zadeh Hamid, Aghaizadeh Zoroofi Reza (2004)., 2nd IEEE GCC Conference, 23-25 November, Bahrain.

**41.** Comparison of Three Gaussian Mixture Modeling and Spatial Encoding Methods for Segmenting Human Brain MRI. Zeydabadinezhad M., Aghaizadeh Zoroofi Reza, Soltanian Zadeh Hamid (2004)., ICOSSIP 2004, 14-16 September, Izmir, Turkey.

**42.** Wavelet-Based Determination of Malignancy of Pathological Images of Prostate. Farjam R., Soltanian Zadeh Hamid, Aghaizadeh Zoroofi Reza (2004)., ICOSSIP 2004, 14-16 September, Izmir, Turkey.

**43.** MRSI Brain Tumor Characterization Using Wavelet and Wavelet Packets Feature Spaces and Artificial Neural Networks. Yazdanshahmorad Azadeh, Soltanian Zadeh Hamid, Aghaizadeh Zoroofi Reza (2004)., 26th Annual International Conference of the IEEE, 1-6 September, San Francisco, United States Of America.

**44.** Multi-Resolution Automatic Segmentation of T1-Weighted Brain MR Images. Zeydabadinezhad M., Aghaizadeh Zoroofi Reza, Soltanian Zadeh Hamid (2004)., IEEE ISBI, 16-19 May, Arlington, United States Of America.

**HONORS and AWARDS**

**ACADEMIC POSITIONS**

**COURSES OFFERED**

**Computer Graphics

Machine Vision

Digital Image Processing

Medical Information Management

Computer Graphics

Machine Vision

Digital Image Processing

Medical Information Management

Computer Graphics

Machine Vision

Digital Image Processing

Medical Information Management

Digital Image Processing

Medical Information Management

Machine Vision

Digital Image Processing

Industrial Training

Digital Image Processing

Medical Information Management

Advanced Computer Graphics

Computer Graphics

Medical Information Management

Seminar 2

Computer Graphics

Seminar 1

Medical Information Management**

**LABORATORIES**

**Image Processing**