

2012 19th Iranian Conference of Biomedical Engineering

(ICBME 2012)

**Tehran, Iran
20 – 21 December 2012**



IEEE Catalog Number: CFP1218K-PRT
ISBN: 978-1-4673-3128-9

Program

Opening Ceremony

خوش آمدگویی و گزارش و سخنرانی مسئولین در حوزه مرتبط با مهندسی زیست پزشکی کشور

B1: Break

ISBME: 12th Annual Meeting of Iranian Society for BioMedical Engineering

سخنرانی علمی: نگرش سیبرنتیکی در مهندسی زیست پزشکی Cybernetic Approaches in BioMedical Engineering

L1: Lunch

ICBME 2012: BMECH1

Biomechanics of the Head

A New Approach to Model Subarachnoid Trabeculae Resistance in CSF Flow

Mahsa Ghaffari (Student at Amirkabir University of Technology, Iran); Mohammad Zoghi (The State University of New York (SUNY), USA); Mostafa Rostami (Faculty of Biomedical Engineering, Amirkabir University of Technology, Iran); Nabiollah Abolfathi (Advisor, Iran)
pp. 1-5

Numerical and 1-D modeling of systemic circulation along with cerebral vasculature

Bahar Firoozabadi (Sharif University of Technology, Iran); Mohammad Said Saidi (Department of Mechanical Engineering, Sharif University of Technology, Iran); Seyedeh Sarah Salehi (Sharif University of Technology, Iran)
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Design and Implementation of a System for Measurement and Control of Blood Pressure with Charge Balanced Current Pulses to Stimulate the Carotid Sinus Nerve

Sajedeh Ramezanzpour (Amirkabir University of Technology & Pasteur Institute of Iran, Iran); Jalal Izadi Mobarakeh (Pasteur Institute, Iran); Vahid Reza Nafisi (Research Organization for Science and Technology, Iran); Mehرداد Mokhtari (Pasteur Institute, Iran); Milad Amani (University of Amirkabir, Iran); Zhamak Akhlaghi (Pasteur Institute, Iran)
pp. 16-19

Estimation of Time-varying Human Arm Stiffness Using Electromyogram Signal

Mohammad Ali Ahmadi-Pajouh (Amirkabir University of Technology & KNTOosi University of Technology, Iran); Farzad Towhidkxah (Amirkabir University of Technology, Iran); Mh Moradi (Amirkabir University of Tech, Iran)
pp. 20-24

ICBME2012: BIP1

Image Processing

Combination Shape and Texture Features in Diagnosis Skin Cancer

Hamed Aghapanah (Tarbiat Modares University, Iran); Hassan Ghassemian (Tarbiat Modares University, Iran)
B#5

A Novel Automated Three-Dimensional Framework for Evaluating Alpha Angle in Femur

Mina Gharenazifam (Amirkabir University of Technology, Iran); Ehsan Arbabi (University of Tehran, Iran)
pp. 25-29

ICBME 2012: BMAT1

Biomaterials

Effect of Adding Nano-Silicon Carbide on Mechanical Properties and Hydroxyapatite Formation in Calcium Phosphate Cements

Maryam Mohammadi (Materials and Energy Research Center, Iran); Saeed Hesaraki (MATERIALS AND ENERGY RESEARCH CENTER, Iran); Masoud Hafezi (Materials and Energy Research Centre, Iran)
pp. 30-35

Nanostructured Magnesium-Substituted Fluorapatite Coating on 316L Stainless Steel Human Body Implant

Ali Sharifnabi ("Iran University of Science and Technology", Iran); Bijan Eftekhari ("Iran University of Science and Technology", Iran); Mohammad Hossainalipour ("Iran University of Science and Technology", Iran); Mohammad Hossein Fathi (Isfahan University of Technology, Iran)
pp. 36-41

ICBME 2012: BNRE1

Rehabilitation

Control of Pathfinder Robot Movement Using Combination of Brain Rhythmic Waves and Evoked Potential Features in Virtual Environment

Saeid Ghazanfari (Azad University Science and Research Branch, Iran); S. Mohammad P. Firoozabadi (Tarbiat Modares University, Iran); Ali Motie Nasrabadi (Shahed University, Iran)
pp. 42-47

Simultaneous Triple Joint Movement Fuzzy Control in FES-assisted Rowing Exercise

Mohammad Zarei (Sharif University of Technology, Iran); Mehran Jahed (Sharif University of Technology, Iran); Mohammad Mehravar (Jundishapur University of Medical Sciences, Iran)
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Evaluation of EMG Features of Trunk Muscles During Flexed Postures

Mohsen Naji (Dezful Branch, Islamic Azad University, Iran); S. Mohammad P. Firoozabadi (Tarbiat Modares University, Iran); Sedighe Kahrizi (Tarbiat Modares University, Iran)
pp. 53-56

B2: Break

ICBME 2012: BMECH2

Rehabilitation and Robotic Surgery

A Low Cost Hands-Free Typing System for Disabled People

Attieh Arab (University of Tehran, Iran); Maral Fakoor (University of Tehran, Iran); Ehsan Arbabi (University of Tehran, Iran); Reihaneh Daneshmand (University of Tehran, Iran)
pp. 57-60

An EMG-driven Musculoskeletal Model to Predict Muscle Forces During Performing a Weight Training Exercise with a Dumbbell

Fatemeh Moosavi (Islamic Azad University, Science and Research Branch, Iran); Hossein Ehsani (Amirkabir University of Technology, Iran); Arefeh Pasdar (Islamic Azad University, Science and Research Branch, Iran); Mostafa Rostami (Faculty of Biomedical Engineering, Amirkabir University of Technology, Iran)
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A Comparison Between Computed Muscle Control Method and Static Optimization Technique to Determine Muscle Forces During a Weight Training Exercise with a Dumbbell

Arefeh Pasdar (Islamic Azad University, Science and Research Branch, Iran); Hossein Ehsani (Amirkabir University of Technology, Iran); Fatemeh Moosavi (Islamic Azad University, Science and Research Branch, Iran); Mostafa Rostami (Faculty of Biomedical Engineering, Amirkabir University of Technology, Iran)
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Investigation in Fibula Effects on Stress Distribution in Tibiofemoral Joint

Maryam Mohtajeb (IUST, Iran); Seyed Mohammad Tabatabaei (IUST, Iran); Mohammadreza Mallakzadeh (Iran University of Science and Technology, Iran); Hamidreza Yazdi (TUMS, Iran)
pp. 73-78

Design of SMA Micro-Gripper for Minimally Invasive Surgery

Hamed Adldoost (Sharif University of Technology, Iran); Behnoush Rezaeian (Sharif University of Tech, Int'l Campus, Iran); Abolghassem Zabihollah (Sharif University of Technology, Iran)
pp. 79-82

Bilateral Nonlinear Teleoperation for Flexible Link Surgical Robot with Vibration Control

Mohadeseh Yaryan (Amirkabir University of Technology, Iran); Mahyar Naraghi (Amirkabir University of Technology, Iran); Seyed Mehdi Rezaei (Amirkabir University of Technology, Iran); Mohammad Zarei nejad (Amirkabir University Iran, Iran); Hamed Ghafarirad (Amirkabir University of Technology, Iran)
pp. 83-88

ICBME2012: BIP2

Imaging and Image Processing

Sparse MEG Source Localization on Parameterized Cortical Medial Surface

Hamid Khosravi (University of Tehran, Iran); Mahsa Mohammadkhani (University of Alberta, Canada); Hamid Soltanian-Zadeh (University of Tehran, Iran)
pp. 89-94

GPU-Based Adaptive Beamformer for Medical Ultrasound Imaging

Yaser Fathi (Tarbiat Modares University, Iran); Ali Mahloojifar (Tarbiat Modares University, Iran); Babak Mohammadzadeh Asl (Tarbiat Modares University, Iran)
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ICBME 2012: BMAT2

Biomaterials

Effects of Reaction Condition and Feed Composition on Thermo-Gelling Behavior of PLGA-PEG-PLGA

Layla Hosayni (Tarbiat Modares University, Iran); Fariba Ganji (Tarbiat Modares University, Iran); Elham Khodaverdi (Mashhad University of Medical Sciences, Iran)
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Fabrication of Magnesium Fluoridated Hydroxyapatite Nanoparticle-Polycaprolactone Nanocomposite Via Electrospinning

Zeinab Fereshteh (Biomaterials Research Group, Department of Materials Engineering, Isfahan University of Technology, Iran); Mohammad Hossein Fathi (Isfahan University of Technology, Iran); Reza Mozaffarinia (Department of Materials Engineering, Malek Ashtar University of Technology, Iran)
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Effect of Hydrostatic Pressure Amplitude on Chondrogenic Differentiation of Human Adipose Derived Mesenchymal Stem Cells

Farzaneh Safshekan (Amirkabir University of Technology, Iran); Alireza Hemmati (Amirkabir University of Technology, Iran); Mohammad Tafazzoli-Shadpour (Amirkabir University of Technology, Iran); Mohammad Ali Shokrgozar (Anstipasteur, Iran); Nooshin Haghhighipour (Anstipasteur, Iran); Reza Mahdian (Molecular Medicine, Biotechnology Research Center, Pasteur Institute of Iran, Iran)
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ICBME 2012: BINS

Bioinstruments

Effect of Deep Breath on the Correlation Between the Wrist and Finger Photoplethysmograms

Adib Keikhosravi (Sharif University of Technology, Iran); Edmond Zahedi (SHARIF University of Technology, Iran)
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Analysis of Impedance Stabilization of Natural and Metallic DNA Molecules

Roya Mohajeri (Superconductor Electronic Research Laboratory, Sharif University of Technology & National Elit Foundation of Iran, Iran); Ali Sobhani (Rice University, USA); Mohammad Saeid Hejazi (Tabriz University of Medical Science, Iran); Mehdi Fardmanesh (Superconductor Electronics Research Laboratory, Sharif University of Technology, Iran)
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Sharif-Human Movement Instrumentation System (SHARIF-HMIS) for Daily Activities

Mohammad Iman Mokhlespour (Sharif University of Technology, Iran); Omid Zobeiri (Sharif University of Technology, Iran); Ali Akbari (Sharif University of Technology, Iran); Yahya Milani (Sharif University of Technology, Iran); Roya Narimani (Sharif university, Iran); Behzad Moshiri (University of Tehran, Iran); Mohamad Parnianpour (Hanyang University, Ansan, South Korea, Iran)
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Detection Means of the Effects of Electromagnetic Field on Membrane Nano-pore Forming Proteins

Nilofar Ketabi (University of Tehran, Iran); Hamid Mobasheri (University of Tehran, Iran)
pp. 127-131

ICBME2012: Poster

Fuzzy C-Means Clustering Based on Gaussian Spatial Information for Brain MR Image Segmentation

Abbas Biniiaz (Sahand University of Technology, Iran); Ataollah Abbasi (Sahand University of Technology, Iran); Mousa Shamsi (Sahand University of Technology, Iran); Afshin Ebrahimi (Sahand University of Technology, Iran)
pp. 132-136

Comparison of Different Electrocardiogram Signal Power Line Denoising Methods Based on SNR Improvement

Mina Amiri (Sharif University of Technology, Iran); Maryam Afzali (Sharif University of Technology, Iran); Bijan Vosoughi Vahdat (Sharif University of Technology & Bisipl Laboratory : Biological Signal Processing Lab, Iran)
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The Effects of Hertz's Model Parameters on Analysis of Atomic Force Microscopy (AFM) Data for Cardiac Cell

Anahita Ahmadi Soufivand (Iran University of Science and Technology & MANA, Iran); Mehdi Navidbakhsh (Iran University of Science and Technology, Iran)
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KS1: Keynote Speaker 1

The cost of time in control of movements

Reza Shadmehr graduated at the top of his class in high school, and again at the top of the School of Engineering graduating class in college. As an undergraduate, he worked on cryptography algorithms that mimicked biological organisms. This work won the IEEE/Bendix international student competition. In 1985, he started his scientific training with Michael Arbib, a mathematician and brain theorist at University of Southern California. He was an IBM Fellow during graduate school. For his master degree, he used mathematical models of biological learning to improve making of silicon chips. This research led to a Sigma Xi National Student Research Award. For his PhD, he used the mathematical framework of robotics to consider the problem of how a nervous system evolves to control a multi-degree of freedom limb. After completion of his dissertation, he was awarded a McDonnell-Pew postdoctoral fellowship and began post-graduate training in biological motor control at MIT. During his postdoctoral training, Dr. Shadmehr performed one of the key experiments that were instrumental in starting a new field of scientific inquiry called computational motor control. In December of 1994, he became an Assistant Professor of Biomedical Engineering and Neuroscience at Johns Hopkins University, where he now holds the rank of Professor and Director of the PhD program in Biomedical Engineering. He has co-authored text books entitled: "The Computational Neurobiology of Reaching and Pointing" and "Biological learning and control" published by MIT Press in 2003 and 2012, respectively. His work on motor control has been continuously supported by the National Institutes of Health since 1988. Professor Shadmehr is an

Associate Editor of the Journal of Neuroscience, and an Editor of Experimental Brain Research. He has co-authored about eighty scientific papers. However, he views the students that he has trained as his greatest accomplishment.

He will give a speech on the cost of time in control of movements at ICBME 2012. The abstract of Prof. Shadmehr's speech is as follows:

There is consistency in how health people move their eyes, arms, and legs. What is good about this way of moving, and why has our brain settled on this pattern? Here, I focus on the control of eye movements and suggest that the purpose of any movement is to acquire a more rewarding state. I suggest that the way the brain discounts reward in time, i.e., temporal discounting, accounts for differences between individuals in how they move. This framework has the potential to explain why disorders that affect processing of reward in the brain, like Parkinson's disease, depression, and Schizophrenia, result in changes in control of movements.

KS2: KeyNote Speaker 2

Challenges in medical measurements

Professor Webster is actually the most familiar face in the field of medical instrumentation. He is known as one of the founding pioneers in the field and his textbook Medical Instrumentation: Application and Design has been taught worldwide for many years. He is now a professor emeritus of biomedical engineering at the University of Wisconsin-Madison.

Professor Webster will give a speech about Challenges in medical measurement.

Abstract:

Important historical developments in medical measurements will include X ray, ECG, MRI, signal averaging, disposable blood pressure sensor, body plethysmography, IR ear thermometer, Coulter counter, Receiver Operating Curve, and Pulse oximeter. Should we have continuous monitoring of ECG, pulse oximetry, blood pressure from the home? Can we develop an implantable glucose sensor or an implantable intracranial pressure monitor?

B3: Break

ICBME 2012: BMECH3

Tissue and Cell Biomechanics

Autoregressive Modeling of the Photoplethysmogram AC Signal Amplitude Changes After Flow-Mediated Dilation in Healthy and Diabetic Subjects

Mina Amiri (Sharif University of Technology, Iran); Edmond Zahedi (SHARIF University of Technology, Iran); Ferydon Behnia (Sharif University of Technology, Iran)
pp. 145-148

Modeling of Photoplethysmography Signal for Quantitative Analysis of Endothelial Cells During Reactive Hyperemia

Farhad Shiri (Department of Mechanical Engineering Sharif University of Technology, Iran); Bahar Firoozabadi (Sharif University of Technology, Iran); Mohammad Said Saidi (Department of Mechanical Engineering, Sharif University of Technology, Iran)
pp. 149-153

Panel 1: میزگرد: کمیته مهندسی زیست پزشکی (مهندسی پزشکی) شورای عالی برنامه ریزی وزارت علوم، تحقیقات و فناوری

1- معرفی کمیته مهندسی زیست پزشکی و فعالیت های آن -
2- باز تعریف مهندسی زیست پزشکی و شاخه های آن
3- شرح فعالیت کار گروههای کمیته
4- پرسش و پاسخ

L 2: Lunch

ICBME 2012: BMECH5

Biomechanics

Finite Element Analysis of Stress Distribution in Immediately Loaded Dental Implant

Babak Bahrami (Sahand University of Technology, Iran); Farzan Ghalichi (Sahand University of Technology, Iran); Behnam Mirzakouchaki (Tabriz University of Medical Sciences, Iran); Mohammed Ashtiani (Sahand University of Technology, Iran); Arsalan Marghoub (Sahand University of Technology, Iran)
pp. 154-157

Investigation of the Effect of Dental Implant Screw Pitch on the Stress and Strain Distribution in the Mandibular Bone

Hashem Zamanian (Sharif University of Technology & Center of Excellence in Design, Robotics and Automation, Iran); Bahador Marzban (Sharif University of Technology, Iran); Mohammad Gudarzi (Amirkabir University of Technology, Iran); Shahram Amoozegar (Wayne State University, USA)
B#5

Investigation of the Stress Distribution in a Bone Due to Screws Pretensions of the Bone Plate

Mohammad Gudarzi (Amirkabir University of Technology, Iran); Hashem Zamanian (Sharif University of Technology & Center of Excellence in Design, Robotics and Automation, Iran); Bahador Marzban (Sharif University of Technology, Iran); Shahram Amoozegar (Wayne State University, USA)
B#5

Nonlinear Dynamics of an Encapsulated Microbubble Contrast Agent

Farshad Mottaghi (Sahand University of Technology, Iran); Farzan Ghalichi (Sahand University of Technology, Iran); Sohrab Behnia (UUT, Iran)
B#5

ICBME 2012: BIP3

Image Processing

Feature-Based Approach to Fuse fMRI and DTI in Epilepsy Using Joint Independent Component Analysis

Amir Hosein Riazi (University of Tehran, Iran); Hamid Soltanian-Zadeh (University of Tehran, Iran); Gholam Ali Hossein-Zadeh (University of Tehran, Iran)
pp. 158-161

Interpolation of Orientation Distribution Functions (ODFs) in Q-ball Imaging

Maryam Afzali (Sharif University of Technology, Iran); Emad Fatemizadeh (Sharif University of Technology, Iran); Hamid Soltanian-Zadeh (University of Tehran, Iran)
pp. 162-166

Automatic Crown Surface Reconstruction Using Tooth Statistical Model for Dental Prosthesis Planning

Mohammad Reza Soltaninejad (University of Tehran & Control and Intelligent Processing Center of Excellence, Iran); Reza A. Zoroofi (University of Tehran, Iran); Gholamreza Shirani (Tehran University of Medical Science, Iran)
pp. 167-171

Directed Transform Function Approach for Functional Network Analysis in Resting State fMRI Data of Parkinson Disease

Mahdieh Ghasemi (Tarbiat Modares, Iran); Ali Mahloojifar (Tarbiat Modares University, Iran)
pp. 172-177

Impaired Resting State Networks in Temporal Lobe Epilepsy: A Resting State fMRI Study

Marzie Fereidouni (University of Tehran, Iran); Hamid Soltanian-Zadeh (University of Tehran, Iran); Quan Jiang (Henry Ford Hospital, Detroit, Michigan, USA); Kost Elisevich (Spectrum Health System, Grand Rapids, Michigan, USA)
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ICBME 2012: BSP1

Speech Processing

Using Linear Models of Speech Trajectory in the Reconstructed Phase Space to Extract Useful Features for Speech Recognition System

Yasser Shekofteh (Amirkabir University of Technology, Iran); Farshad Almasganj (Amirkabir University of Technology, Iran)
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Detection of Hypernasal Speech in Children with Cleft Palate

Ehsan Akafi (Shahed University, Iran); Mansour Vali (Shahed university, Iran); Negin Moradi (Speech Therapy Department, Ahvaz Jondishapour University of Medical Sciences, Iran)
pp. 186-190

Identifying Depressed From Healthy Cases Using Speech Processing

Robabeh Shankayi (Shahed University, Iran); Mansour Vali (Shahed university, Iran); Morjan Salimi (Counseling Center Alzahra University, Iran); Majid Malekshahi (Azad University, Iran)
pp. 191-194

Study of VTLN Method to Recognize Common Speech Disorders in Speech Therapy of Persian Children

Shahla Azizi (Amirkabir University, Iran); Farzad Towhidkhan (Amirkabir University of Technology, Iran); Farshad Almasganj (Amirkabir University of Technology, Iran)
pp. 195-198

A Predictive Human-inspired Path Planning Method Based on the Dynamic Wave Expansion Neural Network (DWENN)

Yeganeh M. Marghi (Amirkabir University of Technology, Iran); Bahareh Taghizadeh (Amirkabir University of Technology, Iran); Farzad Towhidkhan (Amirkabir University of Technology, Iran)
pp. 199-203

ICBME2012: BMECH4

Mechanics of Biological Fluid

Numerical Simulation of Intraluminal Thrombus Compliance Effects in an Abdominal Aortic Aneurysm Using FSI Method

Saeed Tiari (Amirkabir University of Technology, Iran); Nasser Fatourae (Amirkabir University of Technology, Iran); Farzad Forouzandeh (Amirkabir University of Technology, Iran); Mahboobe Mahdavi (Amirkabir University of Technology, Iran)
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Modeling Internal Carotid Aneurysm Utilizing Lumped Method to Assess the Effect of Anatomical Variation on Efferent Arteries Pressures

Mohsen Abdi (Iran University of Science and Technology, Iran); Mehdi Navidbakhsh (Iran University of Science and Technology, Iran)
pp. 210-215

Effect of Lateral Position on RBC Deformation Using Immersed Boundary- Lattice Boltzmann Method

Mehdi Navidbakhsh (Iran University of Science and Technology, Iran); Marzie Rezazadeh (Iran University of Science and Technology, Iran); Shahrokh Rahmani (Iran University of Science and Technology, Iran); Hanie Monshizade (Iran University of Science and Technology, Iran)
pp. 216-219

A Simple Model of Intimal Thickening- Effects of Hypertension

Seyed Amir Mirbagheri (Sharif University of Technology, Iran); Mohammad Said Saidi (Department of Mechanical Engineering, Sharif University of Technology, Iran); Bahar Firoozabadi (Sharif University of Technology, Iran)
pp. 220-225

B4: Break

ICBME2012: BMECH6

Gait and movement

Stability and Control of Human Body Motion During Performing Balance Motion in Wushu

Afsaneh Yavari (Science and Research Azad University, Iran); Mostafa Rostami (Faculty of Biomedical Engineering, Amirkabir University of Technology, Iran); Ali Esteki (Shahid Beheshti University, Iran); Ali Tanbakoosaz (Islamic Azad University of Abhar, Iran); Mahdi Yousefi Azar Khanian (Faculty of Biomedical Engineering, Amirkabir University of Technology, Iran)
pp. 226-231

A Novel Prosthesis Design to Improve Partial Foot Amputees Gait Using a Carbon Composite AFO

Hassan Sarailoo (Iran University of Science and Technology, Iran); Mohammadreza Mallakzadeh (Iran University of Science and Technology, Iran); Ahmad Toyoorparvaz (Kousar Center for Orthotics and Prosthetics, Iran)
pp. 232-236

The Femoroacetabular Impingement May Be Affected By Changing the Centre Of Rotation

Mahshid Yazdifar (Brunel, United Kingdom); Nikolaos Bardakos (Epsom Hospital, United Kingdom); Richard Field (Epsom Hospital, United Kingdom); Mohammadreza Yazdifar (Brunel University, United Kingdom); Ibrahim Esat (Brunel University London, United Kingdom); Mahmoud Chizari (Brunel University, United Kingdom)
pp. 237-242

ICBME2012: BIP4

Image Processing

Polyp Detection in Wireless Capsule Endoscopy Images by Using Region-Based Active Contour Model

Hoda Eskandari (Shahid Beheshti University, Iran); Mahdi Alizadeh (Shahid Beheshti University, Iran); Alireza Talebpour (Shahid Beheshti university, Iran); Hamid Soltanian-Zadeh (University of Tehran, Iran)
pp. 243-246

Cardiovascular Segmentation Based on Hough Transform and Heuristic Knowledge

Zahra Turani (University of Tehran, Iran); Reza A. Zoroofi (University of Tehran, Iran); Shapoor Shirani (Radiology Department, School of Medicine, Tehran University of Medical Science, Iran); Sara Abkhofte (University of Tehran, Iran)
pp. 247-250

Development of a Fast Algorithm for Automatic Delineation of Prostate Gland on 2D Ultrasound Images

Hoda Eskandari (Shahid Beheshti University, Iran); Sanaz Hariri Tabrizi (Shahid Beheshti University, Iran); Alireza Talebpour (Shahid Beheshti university, Iran); Mohammad Reza Nowroozi (Uro Oncology Research Center, Iran)
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ICBME2012: BSP2

HMI and BCI

A Two Stage Single Trial P300 Detection Algorithm Based on Independent Component Analysis and Wavelet Transform

Neda Haghghatpanah (Isfahan University of Technology, Iran); Rassoul Amirfattahi (Isfahan University of Technology, Iran); Vahid Abootalebi (Yazd University, Iran); Behzad Nazari (Isfahan University of Technology, Iran)
pp. 256-261

DFA- and DWT- Based Features of HRV Signal for Automatic Sleep Staging

Farideh Ebrahimi (University of Tehran, Iran); Seyed Kamaledin Setarehdan (University of Tehran, Iran); Homayoun Nazeran (University of Texas at El Paso, USA)
pp. 262-265

Neural Correlates of Attention Differ From Consciousness During a Novel Psychophysical Task

Raheleh Davoodi (Amir kabir University of Tech, Iran); Mh Moradi (Amirkabir University of Tech, Iran); Ali Yoonessi (Tehran University of Medical Science, School of Advanced Medical Technologies, Iran)
pp. 269-273

ICBME 2012: BCLIN1

Clinical Engineering

Optical Spectroscopy Combined with Neural Network Classification Improves Diagnosis of Cervical Precancerous Lesions

Sanaz Hariri Tabrizi (Shahid Beheshti University, Iran); Sayed Mahmood Reza Aghamiri (Shahid Beheshti University, Iran); Farah Farzaneh (Shahid Beheshti University of Medical Sciences, Iran); Arjen Amelink (Erasmus Medical Center, The Netherlands); Henricus J.C.M. Sterenberg (Erasmus Medical Center, The Netherlands)
pp. 274-277

Effect of Applicator Changes on Light Propagation and Heat Generation in Biological Tissue During Laser Irradiation in LITT

Mohammad Ehsan Salavati (Tarbiat Modares University, Iran); Mohammad Hossein Miran Baygi (Tarbiat Modares University, Iran)
pp. 278-283

Proposing a New Set of Features Based on Frieze Pattern to Discriminate Normal and Abnormal Gait

Ziba Gandomkar (University of Tehran, Iran); Fariba Bahrami (University of Tehran & ISBME, Iran)
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Evaluation of Time Delay Estimation in the Detection of Pleural Effusion in a Phantom Model of the Lungs

Hamed Minaei Zaeim (University of Stellenbosch, South Africa); Cornie Scheffer (University of Stellenbosch, South Africa); Mike Blanckenberg (University of Stellenbosch, South Africa)
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A Neural Model of Multisensory Integration Including Proprioceptive Attention Under Visual Uncertainty

Maryam Saidi (Amir kabir University, Iran); Farzad Towhidkhah (Amirkabir University of Technology, Iran); Fereshteh Lagzi (Amirkabir University, Iran); Shahriar Gharibzadeh (Amirkabir University of Technology, Iran)
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Closing Program