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10th International Conference on Information
Technology and Applications in Biomedicine



10th IEEE International Conference on Information Technology and Applications in Biomedicine

2 – 5 November 2010

Corfu, Greece

Conference Program



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Tuesday, 2 November 2010

14:00-18:00

18:00-18:30

18:30-18:45

**Registration
Opening - Welcome
Award Presentation**

18:45-19:15

**Keynote speech - Prof. Metin Akay
Advances (Innovations) in Neural Informatics**

	Tu.1.1: Biomedical Signal and Image Processing Analysis I <i>Kerkyra Ballroom</i> <i>Chair: Nizamettin Aydin</i> <i>Co-Chair: Lenka Lhotska</i>	Tu.1.2: Bioinformatics, Computational Biology I <i>Ithaca</i> <i>Chair: Dimitrios I. Fotiadis</i> <i>Co-Chair: Themistoklis Exarchos</i>	Tu.1.3: Biomedical Signal and Image Processing Analysis II <i>Lefkas</i> <i>Chair: Konstantina S. Nikita</i> <i>Co-Chair: Andreas Ionnides</i>
19:15 - 20:45	64 - Parametric Representation of the Retinal Temporal Arcade Faraz Oloumi , Rangaraj Rangayyan, Anna Ells	154 - An extensible platform for variome data integration Pedro Lopes , José Luís Oliveira	169 - Lossless Compression of High-Throughput RNAi Images Nader Karimi , Shadrokh Samavi, Shahram Shirani
	84 - Classification of the EEG feature components Michal Vavrecka , Jakub Kuzilek, Lenka Lhotska	155 - A tagging system for bioinformatics resources Pedro Lopes , David Campos, José Luís Oliveira	268 - Rhythmogram as a tool for continuous electrographic data analysis Andreas Ioannides , Armen Sargsyan
	172 - Symbolic Representation of Optic Nerve Head cup presents difference in patients with Primary Open Angle Glaucoma Vassilis Kilintzis , Ioanna Chouvarda, Fotis Topouzis, Nicos Maglaveras	265 - Detection and Normalization of Medical Terms Using Domain-specific Term Frequency and Adaptive Ranking Mi-Young Kim , Randy Goebel	30 - Super Resolution Reconstruction of Cardiac MR Images: Combination of Two vs. Three Orthogonal Views Sami ur Rahman, Stefan Wesarg
	234 - A Real-time Automatic Instrument Tracking System on Cataract Surgery Videos for Dexterity Assessment Vassilis Baldas , Lilian Tang, Panagiotis Bountris, George Saleh, Dimitrios Koutsouris	291 - dAUTObase: Mining Gems on Autoimmune Diseases Utilizing Web Visualization Technologies Dimitris I. Antoniou, Marianthi A. Georgitsi, Vassiliki A. Gkantouna, George P. Patrinos, Konstantinos A. Poulas, Athanasios K. Tsakalidis, Giannis E. Tzimas, Emmanouil S. Viennas	57 - A simulating software of fetal phonocardiographic signals M. Ruffo, M. Cesarelli , M. Romano, P. Bifulco, A. Fratini
	239 - Denoising Performance of Modified Dual Tree Complex Wavelet Transform Gorkem Serbes , Nizamettin Aydin	292 - Compressing Biological Sequences using Self Adjusting Data Structures Dimitris Antoniou , Evangelos Theodoridis, Athanasios Tsakalidis	58 - Application Of Denoising Techniques To Micro-Tomographic M. Matrecano, M. Poderico, G. Poggi, M. Romano, M. Cesarelli
	240 - Dynamic Time Warping Fusion for the Retrieval of Similar Patient Cases Represented by Multimodal Time-Series Medical Data Spyros Tsevas, Dimitris Iakovidis		

21:00-22:30

Welcome cocktail

08:30-09:00

Keynote speech - Prof. Yuan-Ting Zhang
Cardiovascular Health Informatics: Opportunities and Challenges

	We.1.1: ARTreat Workshop I <i>Kerkyra Ballroom</i> <i>Chair: Nenad Filipovic</i> <i>Co-Chair: Oberdan Parodi</i>	We.1.2: Virtual Reality in Medicine and Surgery (Special Session) <i>Ithaca</i> <i>Chair: Lucio Tommaso De Paolis</i> <i>Co-Chair: Giovanni Aloisio</i>	We.1.3: Biomedical Signal and Image Processing Analysis III <i>Lefkas</i> <i>Chair: Ilias Maglogiannis</i> <i>Co-Chair: Spyretta Golemati</i>
09:00 - 10:30	235 - The Investigation of Flow – Structural Interaction in an Arterial Branching by Numerical Simulation <u>Alin Dobre</u> , Alexandru Morega, Mihaela Morega	90 - Segmentation of MRI Brain Data using a Haptic Device <u>Alexei Sourin</u> , Shamima Yasmin, Vitali Zagorodnov	103 - A Modified Fuzzy C-Means Algorithm for Breast Tissue Density Segmentation in Mammograms <u>Zhili Chen</u> , Reyer Zwiggelaar
	231 - Cost-sensitive Decision Tree Model for Optimal Identification of Need for Right Ventricular Support <u>Yajuan Wang</u> , Pramod Bonde, Bronwyn Uber, Jeffrey J. Teuteberg, Robert L. Kormos, James F. Antaki	80 - Computer-aided preoperative planning and surgical templates in implant dentistry for the cases involving metal artifacts <u>Chen Xiaojun</u> , Yuan Jianbing, Lin Yanping, Wang Chengtao, Huang Yuanliang	153 - Mammographic Parenchymal Pattern Segmentation: A Clinical Evaluation <u>Wenda He</u> , Erika Denton, Reyer Zwiggelaar
	263 - Non Newtonian flow study in an axisymmetric tube stenosis Jason Zissis, <u>Demetri Mathioulakis</u>	208 - Advanced Platform for Visualization and Interaction with the 3D Patient Model in Pediatric Laparoscopy <u>Lucio Tommaso De Paolis</u> , Marco Pulimeno, Giovanni Aloisio	227 - Mammographic Risk Assessment and Local Greylevel Appearance Histograms Reyer Zwiggelaar, <u>Erika Denton</u>
	270 - Atherosclerotic Plaque Characterization Using Geometrical Features from Virtual Histology Intravascular Ultrasound Images <u>Lambros Athanasiou</u> , Petros Karvelis, Vassilios Tsakanikas, Kostantinos Stefanou, Katerina Naka, Lampros Michalis, George Rigas, Dimitrios I. Fotiadis	255 - Towards A New Cyber-Physical System for MRI-Guided and Robot-Assisted Cardiac Procedures Erol Yeniaras, Johann Lamaury, Zhigang Deng, <u>Nikolaos V. Tsekos</u> ,	217 - Multiscale Geometric Texture Analysis of Ultrasound Images of Carotid Atherosclerosis <u>Nikolaos Tsiaparas</u> , Spyretta Golemati, Ioannis Andreadis, John Stoitsis, Konstantina S. Nikita
	271 - Atherosclerosis progression in human coronary arteries assessed by ARTreat modeling: pathophysiologic insights by a patient-specific approach <u>Oberdan Parodi</u> , Paolo Maraccini, Vasilis Tsakanikas, Dimitrios Fotiadis, Nenad Filipovic	254 - Design and Analysis of a Haptic Device for Minimally Invasive Cardiac Surgery <u>Atilla Kilicarslan</u> , Javad Mohammadpour, Karolos Grigoriadis, Nikolaos Tsekos	82 - Improving the BCCT.core model with lateral information Hélder P. Oliveira, André Magalhães, Maria J. Cardoso, <u>Jaime S. Cardoso</u>
	277 - ARTreat project: Three-dimensional Numerical Simulation of Plaque Formation and Development in the Arteries <u>Nenad Filipovic</u> , Nicolas Meunier, Zarko Milosevic, Nebojsa Zdravkovic, Milos Kojic, Dimitrios I. Fotiadis, Oberdan Parodi	296 - Orthodontic patient - Growth of somatic structures including implants insertion - 3D longitudinal reconstruction Tatjana Dostalova, <u>Magdalena Kasparova</u> , Michaela Seydlova, Pavel Kriz, Helena Patockova	205 - Skin Lesion Diagnosis from Images Using Novel Ensemble Classification Techniques <u>Manolis Maragoudakis</u> , Ilias Maglogiannis

11:00 - 12:30	<p>We.2.1: ARTreat Workshop II <i>Kerkyra Ballroom</i> <i>Chair: Nenad Filipovic</i> <i>Co-Chair: Oberdan Parodi</i></p>	<p>We.2.2: Biomedical Signal and Image Processing Analysis IV <i>Ithaca</i> <i>Chair: Michalis Zervakis</i> <i>Co-Chair: Evanthia Tripoliti</i></p>	<p>We.2.3: Personal Health Systems I <i>Lefkas</i> <i>Chair: Chris Nugent</i> <i>Co-Chair: Alexandros Tzallas</i></p>
	<p>272 - Quantification of the Effect of Percutaneous Coronary Angioplasty on a Stenosed Right Coronary Artery</p> <p>Panagiotis Siogkas, Antonis Sakellarios, Kostas Stefanou, Vasilis Tsakanikas, Themis Exarchos, Lambros Michalis, Katerina Naka, Catrin Bludszuweit-Philipp, Dimitrios I. Fotiadis</p>	<p>47 - Complex Wavelet Transform Variants and Scale Invariance in Magnification-Endoscopy Image Classification</p> <p>Michael Häfner, Andreas Uhl, Andreas Vecsei, Georg Wimmer, Friedrich Wrba</p>	<p>114 - Neighbourhood Counting for Activity Detection from Time Series Sensor Data</p> <p>Xin Hong, Chris Nugent</p>
	<p>278 - Efficiency of IVUS Guided Procedures in Center without Previous Experience</p> <p>Nevena Tasic, Mladen Tasic, Nikola Jagic, Vladimir Miloradovic, Miodrag Sreckovic, Dusan Nikolic</p>	<p>48 - Experimental Study on the Impact of Endoscope Distortion Correction on Computer-assisted Celiac Disease Diagnosis</p> <p>Michael Gschwandtner, Michael Liedlgruber, Andreas Uhl, Andreas Vécsei</p>	<p>119 - Automatic Feature Selection and Classification of Physical and Mental Load using Data from Wearable Sensors</p> <p>Juha Parkka, Miikka Ermes, Mark van Gils</p>
	<p>279 - Numerical Modeling of Fluid-Structure Interaction of the Carotid Artery Based of Experimental Stress-Stretch Curves</p> <p>Nebojsa Zdravkovic, Milos Kojic, Mirko Rosic, Nenad Filipovic</p>	<p>127 - The Use of Cartesian k-Space Sampling Techniques for High Quality 3D Time-Resolved Imaging of the Cardiovascular System</p> <p>Stephen Riederer, Casey Johnson, Petrice Mostardi</p>	<p>251 - ECG Sensor Signal Analysis to Represent Cases in a Case-based Stress Diagnosis System</p> <p>Shahina Begum, Mobyen Uddin Ahmed, Peter Funk</p>
	<p>283 - Mining Data from Hemodynamic Simulations for Generating Prediction and Explanation Models</p> <p>Miloš Radović, Nenad Filipović, Zoran Bosnić, Petar Vračar, Igor Kononenko</p>	<p>141 - An Open Source and Free GUI Based Tool for Annotating 3-D Medical Images</p> <p>Edgard Nyssen, Wolfgang Jacquet</p>	<p>258 - Fitness Monitoring System Based on Heart Rate and Oxygen Saturation Level</p> <p>Lakshmanan Sornanathan, Ibrahim Khalil</p>
	<p>285 - Computer Model and Clinical Relevance of Abdominal Aorta Aneurism with Compliant Nonlinear Material Wall</p> <p>Velibor Isailovic, Igor Koncar, Dejan Veljkovic, Danko Milasinovic, Dalibor Nikolic, M. Markovic, L. Davidovic, M. Kojic, N. D. Filipovic</p>	<p>147 - Single-Cell Detection and Classification in Phase Contrast Images</p> <p>Maria Athelougou, Markus Eblenkamp, Günter Schmidt Schmidt, Felicitas Novotny, Erich Wintermantel, Gerd Binnig</p>	<p>214 - An initial experience in Wearable Monitoring Sport Systems</p> <p>Antonio Salazar, Ana Silva, Carla Borges, Miguel Correia</p>
	<p>289 - Atherosclerotic Carotid Wall Segmentation in Ultrasound Images Using Markov Random Fields</p> <p>Styliani Petroudi, Christos Loizou, Constantinos Pattichis</p>	<p>252 - Level set method based on a statistical shape constraint for MRI brain segmentation</p> <p>Said Ettaieb, Kamel Hamrouni, Nawres Khelifa, Su Ruan</p>	
		<p>125 - A new approach for echocardiogram compression based on display modes</p> <p>Eva María Caveró, Álvaro Alesanco, José García</p>	

16:30-17:30

Poster Session

17:30-18:00

Keynote Speech - Prof. Jose Principe
Cognitive Integration of Prosthetic Devices: Is it Feasible?

	We.3.1: Biomedical Signal and Image Processing Analysis V <i>Kerkyra Ballroom</i> Chair: <i>Christophoros Nikou</i> Co-Chair: <i>Petros Karvelis</i>	We.3.2: e-Health Systems, m-Health Systems, and Telemedicine Systems I <i>Ithaca</i> Chair: <i>Dimitrios Koutsouris</i> Co-Chair: <i>Ibrahim Khalil</i>	We.3.3: Systems Biology and Modeling Methodologies I <i>Lefkas</i> Chair: <i>Aristotelis Chatziioannou</i> Co-Chair: <i>Michalis Zervakis</i>
18:00 - 19:30	122 - Fast Graph-based Medical Image Segmentation with Expert Guided Statistical Information Yu-Chi Hu , Michael Grossberg, Gig Mageras	29 - Assessing the Accessibility of a Domestic Brain Computer Interface and the Implications for Future Design Choices Melanie Ware , Gaye Lightbody, Paul McCullagh, Maurice Mulvenna, Suzanne Martin, Eileen Thomson	246 - Integration of Biological Knowledge in the Mixture-of-Gaussians Analysis of Genomic Clustering Stelios Sfakianakis , Michalis Zervakis, Manolis Tsiknakis, Dimitris Kafetzopoulos
	99 - Watershed-based segmentation of cell nuclei boundaries in Pap smear images Marina Plissiti , Christophoros Nikou, Antonia Charchanti	186 - Telemonitoring in AMICA: a design based on and for COPD patient Luis Felipe Crespo , Daniel Sánchez Morillo, Mario Crespo, Antonio Leon, Sonia Astorga, K. Giokas, I. Kouris	135 - A novel embedded pre-miRNA classification approach for the prediction of microRNA genes Konstantinos Theofilatos, Dimitrios Kleftogiannis , Maria Anna Rapsomaniki, Vasileios Haidinis, Spiridon Likothanassis, Athanasios Tsakalidis, Seferina Mavroudi
	247 - Hierarchical Medical Image Annotation Using SVM-based Approaches Igor Amaral, Filipe Coelho, Joaquim Costa, Jaime Cardoso	150 - Evaluation of 802.15.4 WPAN for Patient Monitoring Angeliki Kritsotaki , Konstantinos Perakis, Dimitris Koutsouris	156 - An Epidemiological Population Study reveals a sex-related differential effect of PAH exposure and Gene Polymorphisms on Bulky DNA Adducts Formation Efthymios Ladoukakis , Panagiotis Georgiadiis, Aristotelis Chatziioannou
	226 - Wavelet Use for Reduction of Watershed Transform Over-Segmentation in Biomedical Images Processing Ales Prochazka , Oldrich Vysata, Eva Jerhotova	204 - A Novel Architecture and Process for Ambient Assisted Living – The HERA approach Nikolaos Spanoudakis , Boris Grabner, Christina Kotsiopolou, Olga Lymeropoulou, Verena Moser-Siegmeth, Stylianos Pantelopoulou, Paraskevi Sakka, Pavlos Moraitis	173 - Multiway Spectral Clustering Link Prediction in Protein-Protein Interaction Networks Nantia Iakovidou , Panagiotis Symeonidis, Yiannis Manolopoulos
	213 - Texture Characterization in Ultrasonograms of the Thyroid Gland Maria Lyra, Nefeli Lagopati , Paraskevi Charalabatou, Efrosini Vasoura, Aristides Antoniou, Costas Georgosopoulos, Katerina Skouroliakou	221 - H@H: A telemedicine suite for de-hospitalization of chronic disease patients Lucio Colizzi, Nicola Savino , Paola Rametta, Luca Rizzi, Giuseppe Fiorino, Giovanni Piccinno, Massimo Piccinno, Giuseppe Rana, Fabio Petrosillo, Michele Natrella, Luigi Laneve	176 - A New Hybrid Method for Predicting Protein Interactions Using Genetic Algorithms and Extended Kalman Filters Konstantinos Theofilatos, Christos Dimitrakopoulos , Athanasios Tsakalidis, Spyridon Likothanassis, Stergios Papadimitriou, Seferina Mavroudi
	148 - Fractal-based Approach in Analysis of Intracranial Pressure (ICP) in Severe Head Injury Olga Sourina , Beng-Ti Ang, Minh Khoa Nguyen	290 - Packet Size Optimization for Congestion Control in Pervasive Healthcare Monitoring Naimah Yaakob , Ibrahim Khalil	249 - Analysis of pediatric obstructive nephropathy using protein antibody arrays and computational techniques Ioannis Valavanis, Cécile Caubet, Ilias Maglogiannis , Julie Klein, Joost-Peter Schanstra, Aristotelis Chatziioannou

Keynote speech - Prof. Sergio Cerutti
08:30-09:00 Cardiovascular variability signals: towards a quantitative assessment of the complexity of autonomic nervous system

09:00 - 10:30	Th.1.1: Personal Health Systems II <i>Kerkyra Ballroom</i> <i>Chair: Konstantina S. Nikita</i> <i>Co-Chair: George Manis</i>	Th.1.2: Biomedical Signal and Image Processing Analysis VI <i>Ithaca</i> <i>Chair: Constantinos S. Pattichis</i> <i>Co-Chair: Spyretta Golemati</i>	Th.1.3: Integrated ICT and Post-genomic Approaches in Neurological Disorders (Special Session) <i>Lefkas</i> <i>Chair: Dimitris Kafetzopoulos</i> <i>Co-Chair: Vasiliki Danilatou, Michalis Tsiknakis</i>
	168 - Development and Clinical Evaluation of a Home Healthcare System Measuring in Toilet, Bathtub and Bed without Attachment of Any Biological Sensors <u>Kosuke Motoj</u> , Mitsuhiro Ogawa, Hiroshi Ueno, Seiji Fukunaga, Tadahiko Yuji, Yuji Higashi, Shinobu Tanaka, Toshiro Fujimoto, Hidetsugu Asanoi, Ken-ichi Yamakoshi	130 - Segmentation of MR Brain Images Using FCM improved by Artificial Bee Colony (ABC) Algorithm <u>Mohammad Taherdangkoo</u> , Mehran Yazdi, Mohammad Hossein Rezvaki Nasab	71 - A Theoretical Artificial Approach on Reducing Mitochondrial Abnormalities in Alzheimer's Disease Athanasios Alexiou, <u>Panayiotis Vlamos</u> , Kimon Volikas
	202 - Lessons Learned Implementing the ISO/IEEE11073 Standard into Wearable Personal Devices <u>Miguel Martínez-Espronceda</u> , Ignacio Martínez, Luis Serrano, Santiago Led, Jesús Daniel Trigo, Asier Marzo, Javier Escayola, Héctor Gilberto Barrón Gonzalez, José García	165 - Quantitative evaluation of Compressed Sensing in MRI: application to 7T time-of-flight angiography Julien Milles, Maarten J. Versluis, <u>Andrew G. Webb</u> , J. Hans C. Reiber	83 - Vision-Based Human Motion Analysis in Epilepsy - Methods and Challenges <u>Matthaeus Pediaditis</u> , Manolis Tsiknakis, Pelagia Vorgia, Dimitris Kafetzopoulos, Vasiliki Danilatou, Dimitrios I. Fotiadis
	139 - Developing smartphone applications for people with Alzheimer's disease <u>Nicola Armstrong</u> , Christopher Nugent, George Moore, Dewar Finlay	182 - Three-Dimensional Semi-Automatic Segmentation of Intracranial Aneurysms in CTA <u>Alireza Nikravanshalmani</u> , Salah D. Qanadli, Tim J. Ellis, Matthew Crocker, Yousef Ebrahimdoost, Mojdeh Karamimohammadi, Jamshid Dehmeshki	110 - Discovery and Assessment of Gene-Disease Associations by Integrated Analysis of Scientific Literature and Microarray Data Alberto Faro, <u>Daniela Giordano</u> , Concetto Spampinato
	145 - Optimal placement of accelerometers within the constraints of a smart garment system <u>Ian Cleland</u> , Chris Nugent, Dewar Finlay, Roger Armitage	220 - Assessment of Automated Brain Structures Segmentation based on the Mean-shift Algorithm: Application in Brain Tumor Cristina Farmaki, Kostas Mavrigiannakis, Kostas Marias, Michalis Zervakis, <u>Vangelis Sakkalis</u>	207 - The emerging concept of blood genomic profiling in childhood epilepsy <u>Vasiliki Danilatou</u> , Pelagia Vorgia, Matthaeus Pediaditis, Manolis Tsiknakis, Dimitrios Fotiadis, Dimitris Kafetzopoulos
	192 - Temporal Logic Bounded Model-Checking for Recognition of Activities of Daily Living Tommaso Magherini, Guido Parente, <u>Christopher D. Nugent</u> , Mark P. Donnelly, Enrico Vicario, Federico Cruciani,	224 - Automated Initialization and Region of Interest Detection for Automated Head Registration of Truncated CT/MR Head & Neck Images <u>Sebastian Steger</u> , Matthias Keil	

	Cristiano Paggetti	288 - Texture Image Analysis of Normal Appearing White Matter Areas in Clinically Isolated Syndrome that Evolved in Demyelinating Lesions in Subsequent MRI scans: Multiple Sclerosis Disease Evolution	
		Christos Loizou , Ioannis Seimenis, Marios Pantziaris, Takis Kasparis, Efthivoulos Kyriakou, Constandinos S. Pattichis	

10:30-11:00

Coffee Break

11:00-12:00

Poster Session

12:00-12:30

Keynote speech - Prof. Paolo Dario
Frontiers of Biomedical Robotics

12:30-14:00

Lunch

	<p>Th.2.1: Diagnostic and Therapeutic Systems <i>Kerkyra Ballroom</i> Chair: Katarzyna Blinowska Co-Chair: Ilias Maglogiannis</p>	<p>Th.2.2: Biomedical Signal and Image Processing Analysis VII <i>Ithaca</i> Chair: Ibrahim Khalil Co-Chair: Christophoros Nikou</p>	<p>Th.2.3: Bridging Public Health Informatics With Personal Health Records: Opportunities for Wellness and Disease Prevention (Special Session) I <i>Lefkas</i> Chair: Luis Kun Co-Chair: Dimitrios Lymberopoulos</p>
14:00 - 15:30	<p>243 - Development of a diagnostic system that predicts the remaining period of pre-emergent eruption of second molars using a panoramic radiograph</p> <p>Masakazu Yagi, Yoshihiko Hamada, Ryuzo Kanomi, Kenji Takada</p>	<p>95 - Assessment and Visualization of Parkinson's Disease Tremor</p> <p>Jonathan Synnott, Liming Chen, Chris Nugent, George Moore</p>	<p>39 - Ubiquitous Access to Cloud Emergency Medical Services</p> <p>Vassiliki Koufi, Flora Malamateniou, George Vassilacopoulos</p>
	<p>86 - A New Approach to Model Based Active Contours in Lung Tumor Segmentation in 3D CT Image Data</p> <p>Ioana Cristina Plajer, Detlef Richter</p>	<p>108 - Soft Textile Electrodes for EEG Monitoring</p> <p>Johan Löfhede, Fernando Seoane, Magnus Thordstein</p>	<p>54 - The BIOTELEKINESY home care service: a holistic concept to prevent fall among the elderly based on ICT and computer vision</p> <p>Caroline Barelle, Elfetheria Vellidou, Dimitris Koutsouris</p>
	<p>211 - Micromachined Acoustic Device for Diagnostic Applications</p> <p>Alexandros Pantazis, Electra Gizeli, Georgios Konstantinidis</p>	<p>171 - Finger Tapping feature extraction in Parkinson's disease using low-cost accelerometers</p> <p>Julien Stamatakis, Julien Crémers, Benoit Macq, Gaëtan Garraux</p>	<p>62 - Privacy-Preserving Publication of Diagnosis Codes for Effective Biomedical Analysis</p> <p>Grigorios Loukides, Aris Gkoulalas-Divanis, Bradley Malin</p>
	<p>131 - Prediction of collapse of the osteonecrosis of the hip by determining location and size of the lesion. A 2 to 17 years study</p> <p>Stelios Koumpoyiannis, Nikolaos Aravas,</p>	<p>167 - Sequential Error Rate Evaluation of SSVEP Classification Problem with Bayesian Sequential Learning</p> <p>Hideyuki Hara, Atsushi Takemoto, Yumi Dobashi, Katsuki Nakamura, Takashi</p>	<p>87 - A New Telemedicine Framework Handling the Emergency Room Overload</p> <p>Maria-Anna Fengou, Theodor Panagiotakopoulos, Spyros Fengos, Nikolaos Lazarou, Dimitrios</p>

	Elias Houstis, Theofanis Moraitis, Socrates Varitimidis, Konstantinos Malizos	Matsumoto	Lymberopoulos
	157 - A Generalized-Space Expansion of Support Vector Machines for diagnostic systems Ioannis Dimou, <u>Michalis Zervakis</u>	194 - Application of Fuzzy ARTMAP Neural Networks for Epileptic spike detection Using Wavelet Feature Extraction <u>Fatemeh Safari</u> , Ali Farrokhi, Nemat Talebi	133 - Neural Networks for prediction of Trauma victims' outcome. Comparison with the TRISS and Revised Trauma Score <u>Eleni-Maria Theodoraki</u> , Christos Koukouvinos, Christina Parpoula
	198 - Wavelet and Physical Parametric Analysis of the Acetowhitening Optical Effect: Comparative Evaluation of Performances in non-invasive Diagnosis of Cervical Neoplasia Vanessa Margariti, Michalis Zervakis, <u>Costas Balas</u>	138 - A decision support tool for optimal Levodopa administration in Parkinson's Disease George Rigas, Panagiota Bougia, Dina Baga, Markos Tsipouras, <u>Alexandros Tzallas</u> , Evanthia Tripoliti, Sofia Tsouli, Maria Chondrogiorgi, Spiros Konitsiotis, Dimitrios I. Fotiadis	299 - Security and privacy architectures for biomedical cloud computing Vasiliki Danilaitou, <u>Sotiris Ioannidis</u>

15:30-16:00

Keynote speech - Prof. Bruce Wheeler
Brain on a Chip: Can We Build One?

	Th.3.1: Biomedical Signal and Image Processing Analysis VIII <i>Kerkyra Ballroom</i> Chair: Panagiotis Bamidis Co-Chair: Dimitrios I. Fotiadis	Th.3.2: Bridging Public Health Informatics With Personal Health Records: Opportunities for Wellness and Disease Prevention (Special Session) II <i>Ithaca</i> Chair: Luis Kun Co-Chair: Ricardo Armentano	Th.3.3: Biomedical Signal and Image Processing Analysis IX <i>Lefkas</i> Chair: Lena Costaridou Co-Chair: Ioanna Chouvarda
	67 - A Novel Thresholding Method For The Analysis Of Functional Connectivity Networks Of The Brain <u>Athanasios Anastasiou</u> , Emmanuel Ifeachor	Intersection of Public Health and Electronic Health Records <u>Luis Kun</u>	32 - Multi-Layer Deformable Models for Medical Image Segmentation <u>Marius Erdt</u> , Patrice Schlegel, Stefan Wesarg
16:00 - 17:30	115 - Small-world properties of Brain Functional Connectivity Networks are affected by emotional stimuli <u>Chrysa Lithari</u> , Christos Frantzidis, Christos Papadelis, Manoussos Klados, Costas Pappas, Panagiotis Bamidis	Integrative framework for Cardiovascular Disease detection and prevention <u>Ricardo Armentano</u>	107 - Medical Image Fusion for Color Visualization via 3D RDWT <u>Mario Ciampi</u>
	237 - Clustering Inter-Subject Correlation Matrices in Functional Magnetic Resonance Imaging <u>Jukka-Pekka Kauppi</u> , Iiro Jääskeläinen, Mikko Sams, Jussi Tohka	Geomedicine: Using Geographical Information Systems (GIS) to Link Environmental Data to Clinical Medicine <u>Bill Davenhall</u>	137 - DICOM Image compression using Bilinear Interpolation <u>Uma Vetri Selvi G</u> , Nadarajan R
	65 - Comparison of methods for estimation of time-varying transmission in multichannel data Maciej Kaminski, Pawel Szerling, <u>Katarzyna Blinowska</u>	Genomics Enabled Personalized Medicine Luis Kun, <u>Guenther Rau</u>	144 - In silico tomographic image generation using Monte Carlo and Computational Geometry <u>Konstantinos Eftaxias</u> , Vissarion Fisikopoulos, George Spyrou
	40 - An Electromagnetic System for Surgical Navigation with Registration of Fiducial Markers using the Iterative Closest Point Algorithm <u>Antonio Bosnjak</u> , Guillermo Montilla,	CyberHealth <u>Joseph Rosen</u> , Luis Kun	241 - Registration Accuracy Assessment on Noisy Neuroimages <u>Francesca Pizzorni Ferrarese</u> , Flavio Simonetti, Roberto Foroni, Gloria Menegaz

	Ricardo Villegas, Iván Jara 212 - Investigation of the spatial spectrum of cortical contours on cross-sections of the brain <u>Uwe Graichen</u> , Roland Eichardt, Daniel Güllmar, Jens Haueisen		281 - Intelligent Planning of Biomedical Image Mining Workflows <u>Charalampos Doukas</u> , Aristotle Chatziioannou, Ilias Maglogiannis
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17:30-18:00

Coffee Break

18:00 - 19:30	Th.4.1: e-Health Systems, m-Health Systems, and Telemedicine Systems II <i>Ithaca</i> Chair: Dimitrios I. Fotiadis Co-Chair: Manolis Tsiknakis	Th.4.2: Biomedical Signal and Image Processing Analysis X <i>Lefkas</i> Chair: Panagiotis Bamidis Co-Chair: Efthivoulos Kyriakou	Th.4.3: Systems Biology and Modeling Methodologies II <i>Pool room</i> Chair: Aristotelis Chatziioannou Co-Chair: Eleni Georga
	61 - Interoperability testing of integration profiles based on HL7 standard version 3 <u>Jean-Francois Pambrun</u> , Rita Noumeir	94 - Optimisation of an epileptiform activity detector for ambulatory use Eoin Thomas, <u>Daniel Kelleher</u> , Gordon Lightbody, Derek Nash, Brian McNamara, William Marnane	26 - Modeling of Compartment Reaction Delay and Glucose Travel Time through Interstitial Fluid in Reaction to a Change of Glucose Concentration <u>Tomas Koutny</u>
	66 - Similarity Searches of Medical Image Data in Peer-to-Peer Systems <u>Amalia Charisi</u> , Vasileios Megalooikonomou	28 - An Emotion Elicitation Metric for the Valence/Arousal and Six Basic Emotions Affective Models: A comparative Study <u>Panagiotis Petrantonakis</u> , Leontios Hadjileontiadis	149 - Oscillatory Flow in Human Arteries <u>Dimitrios Fytanidis</u> , Johannes Soulis, Vassilios Papaioannou, George Giannoglou
	109 - An XML Based Format for the Storage of Data Generated within Smart Home Environments <u>Heather McDonald</u> , Chris Nugent, George Moore, Dewar Finlay	201 - Lossless EEG Data Source Coding for Seizure Prone Activity <u>Richard Mc Sweeney</u> , Emanuel Popovici	174 - Studying the Nonlinearities of T-cell Leukemia Growth and the Underlying Metabolism Upon Glucocorticoid Treatment through the Application of Dynamic Mathematical Methodologies <u>George I. Lambrou</u> , Aristotelis Chatziioannou, Maria Adamaki, Maria Moschovi, Eleftheria Koulouki, Theodoros Karakonstantakis, George P. Chrousos and Spiros Vlahopoulos
	118 - An Ontology approach to manage individual patient profiles in home-based telemonitoring scenarios Nelia Lasierra Beamonte, <u>Álvaro Alesanco Iglesias</u> , José García Moros	232 - Synchronization analysis of short EEG data through time-evolving relative wavelet entropy and IAPS affective visual stimuli <u>Christos Frantzidis</u> , Chrysa Lithari, Manousos Klados, Costas Pappas, Panagiotis Bamidis	37 - Evaluating Human Visual Search Performance by Monte Carlo methods and Heuristic model <u>Giacomo Veneri</u> , Elena Pretegianni, Pamela Federighi, Francesca Rosini, Antonio Federico, Alessandra Rufa
	120 - Home-Based Telemonitoring Architecture To Manage Health Information Based on Ontology Solutions <u>Nelia Lasierra Beamonte</u> , Álvaro Alesanco Iglesias, José García Moros	242 - The Impact of Audio-Visual Stimulation on Alpha Brain Oscillations: an EEG Study <u>Christos N. Moridis</u> , Manousos A. Klados, Ioannis A. Kokkinakis, Vasileios Terzis, Anastasios A. Economides, Anna Karlovasitou, Panagiotis D. Bamidis, Vasileios E. Karabatakis	91 - Forecasting the State of Pulmonary Infection by the Application of Fuzzy Cognitive Maps Elpiniki Papageorgiou, <u>Wojtek Froelich</u>
	79 - Detecting Falls at Homes Using a Network of Low-Resolution Cameras <u>Sebastian Zambanini</u> , Jana Machajdik, Martin Kappel	261 - EEG Discrimination using Wavelet Packet Transform and a Reduced-dimensional Recurrent Neural Network <u>Nan Bu</u> , Keisuke Shima, Toshio Tsuji	193 - Vessel Segmentation in X-ray Angiographic Images Using Hessian Based Vesselness Filter and Wavelet Based Image Fusion <u>Seyed Mohammad jalal Rastegar Fatemi</u> , Seyed Mostafa Mirhassani, Bardia Yousefi

20:30-23:30

Gala Dinner

08:30-09:00

Keynote speech - Prof. Paolo Bonato
New Frontiers in Wearable Technology and its Medical Applications

	<p>Fr.1.1: Biomedical Signal and Image Processing Analysis XI <i>Kerkyra Ballroom</i> Chair: <i>S. Dandapat</i> Co-Chair: <i>Ioanna Chouvarda</i></p>	<p>Fr.1.2: Economic and Managerial Aspects of e-health (special session) <i>Ithaca</i> Chair: <i>Yorgos Goletsis</i> Co-Chair: <i>Michael Chletsos</i></p>	<p>Fr.1.3: Bioinformatics, Computational Biology II <i>Lefkas</i> Chair: <i>Huseyin Seker</i> Co-Chair: <i>Konstantinos Exarchos</i></p>
	<p>52 - FPGA-Implementation of Wavelet-based Denoising Technique to Remove Power-Line Interference from ECG Signal Mohammed Bahoura, Hassan Ezzaidi</p>	<p>300 - Towards a unified methodology for the evaluation of e-health applications Yorgos Goletsis, Michael Chletsos</p>	<p>69 - Towards Fast and Reliable Candidate Peptide Indexing for Tandem Mass Spectrometry Data Rostyslav Kuzyakiv, Markus Müller, Fokko Beekhof, Frederic Nikitin, Frederique Lisacek, Sviatoslav Voloshynovskiy</p>
	<p>81 - Efficient single-lead ECG Beat Classification using Matching Pursuit based Features and Artificial Neural Network Alexandros Pantelopoulos, Nikolaos Bourbakis</p>	<p>105 - Adoption of innovative eHealth services in prehospital emergency management: a case study Manolis Tsiknakis, Manolis Spanakis</p>	<p>72 - A Two-Stage Active Contour-based Scheme for Spot Detection in Proteomics Images Eleftheria Mylona, Michalis Savelonas, Dimitris Maroulis</p>
<p>09:00 - 10:30</p>	<p>163 - Multiscale entropy based multiscale principal component analysis for multichannel ECG data reduction L. N. Sharma, S. Dandapat, A. Mahanta</p>	<p>181 - Hospital Participatory Information System - An Innovative Electronic Participatory Platform For Improved Hospital Operation and Superior Hospital Health Services Provisioning Byron Bakaimis</p>	<p>151 - Bioinformatic Transcriptomic Analysis of ApoE Deficient Mice suggests Alterations in Atherosclerosis related Molecular Mechanisms Olga Papadodima, Aristotelis Chatzioannou, Allan Sirsjo, Fragiskos Kolisis</p>
	<p>222 - Optimising Arrhythmia Detection for Exercise Sessions of Cardiac Patients Dimitris Filos, Ioanna Chouvarda, Nicos Maglaveras</p>	<p>160 - Two Online Resources to Improve Healthcare Professionals' Health and Well-Being: Lessons Learned from a Comprehensive Evaluation Colla MacDonald, Hugh Kellam, Douglas Archibald, Derek Puddester, Rong Sun, Emma Stodel</p>	<p>188 - Similarity/Dissimilarity Analysis of COI Mitochondrial Gene of Chosen Bird Species Based on Nucleotide Density Denisa Maderankova, Ivo Provaznik</p>
	<p>215 - Comparison of Entropy Measures for Estimating Severity of Obstructive Sleep Apnea from Overnight Pulse Oximetry Data Spyretta Golemati, Veronika Zourou, Konstantina Nikita</p>		<p>190 - A Novel Pipeline Method for the Preprocessing of Mass Spectrometry Proteomics Data Maria Anna Rapsomaniki, Panagiotis Zerefos, Konstantinos Theofilatos, Spiridon Likothanassis, Athanasios Tsakalidis, Seferina Mavroudi</p>
	<p>228 - Adaptive Filtering for Baseline Wander Removal in ECG Vinod Pandey</p>		<p>210 - Complex Resonant Recognition Model in Analysing Influenza A Virus Subtype Protein Sequences Charalambos Chrysostomou, Huseyin Seker, Nizamettin Aydin, Parvez Haris</p>

10:30-11:00

Coffee Break

11:00 - 12:30	<p>Fr.2.1: e-Health Systems, m-Health Systems, and Telemedicine Systems III <i>Kerkyra Ballroom</i> Chair: <i>Dimitrios Lymberopoulos</i> Co-Chair: <i>Pantelis Angelidis</i></p>	<p>Fr.2.2: Bioinformatics, Computational Biology III <i>Ithaca</i> Chair: <i>Panagiotis Vlamos</i> Co-Chair: <i>Huseyin Seker</i></p>	<p>Fr.2.3: Biomedical Signal and Image Processing Analysis XII <i>Lefkas</i> Chair: <i>Lena Costaridou</i> Co-Chair: <i>Efthivoulos Kyriacou</i></p>
	<p>51 - Multi-sensors data fusion system for fall detection Damien Brulin, <u>Estelle Courtial</u></p>	<p>20 - An Advanced Hierarchical Algorithm for Protein Complex Prediction <u>Charalampos Moschopoulos</u>, Konstantinos Theofilatos, Dimitris Fotakis, Spiridon Likothanassis, Sophia Kossida</p>	<p>68 - Comparison of various fuzzy clustering algorithms in the detection of ROI in lung CT and a modified kernelized-spatial fuzzy c-means algorithm <u>Alfonso Castro</u>, Carmen Boveda, Bernardino Arcay</p>
	<p>166 - SEMPATH Ontology: Modeling multi-disciplinary treatment schemes utilizing semantics <u>Dimitrios Alexandrou</u>, Constantinos Pardalis, Athanasios Bouras, Gregoris Mentzas</p>	<p>146 - Mapping short reads to a genomic sequence with circular structure Costas S. Iliopoulos, <u>Tewogboye A. Okanlawon</u>, Solon P. Pissis and German Tischler</p>	<p>49 - Benefits and shortcomings of partial volume interpolation for MI based image registration <u>Wolfgang Jacquet</u>, Edgard Nyssen, Pieter de Groen, Jan Sijbers</p>
	<p>96 - Caregiving Social Networks. Are they adequate to support patients with anxiety disorders and how are they established? <u>Theodor Panagiotakopoulos</u>, Panagiotis Malliaris, Maria-Anna Fengou, Philippos Gourzis, Dimitrios Lymberopoulos</p>	<p>282 - Frequency-Domain Analysis for Intron Prediction <u>Alexandros Papaspiridis</u></p>	<p>106 - Volumetric Difference Evaluation of Registered Three-Dimensional Preoperative and Postoperative CT Volumes <u>Theodore Economopoulos</u>, Pantelis Asvestas, George Matsopoulos, Balint Molnar, Peter Windisch</p>
	<p>126 - A web-based hospital-acquired infection surveillance information system <u>Yi-Ju Tseng</u>, Yee-Chun Chen, Hui-Chi Lin, Jung-Hsuan Wu, Ming-Yuan Chen, Feipei Lai</p>	<p>206 - Investigating the uniqueness of peptides in Human signal and bioactive peptides Anastasia Alexandridou, George Tsangaris, Konstantina Nikita, <u>George Spyrou</u></p>	<p>216 - Comparison of Vesselness Functions for Multiscale Analysis of the Liver Vasculature <u>Klaus Drechsler</u>, Cristina Oyarzun Laura</p>
	<p>280 - Wireless Sensor Network Cluster Formation at the Presence of a Wireless Mesh Network <u>Pantelis Angelidis</u></p>	<p>209 - Similarity analysis of primary and secondary structures of metallothioneins <u>Helena Škutková</u>, Ivo Provazník, René Kizek</p>	<p>225 - Lymph Node Segmentation in CT Images Using a Size Invariant Mass Spring Model <u>Sebastian Steger</u>, Marius Erdt</p>
	<p>60 - A wearable patient monitoring device for recording of biopotentials and body movements by textile electrodes and MEMS accelerometers <u>P. Bifulco</u>, A. Fratini, G. Gargiulo, M. Ruffo</p>	<p>219 - Gene-disease prioritization through biomedical networks <u>Joel Arrais</u>, José Luís Oliveira</p>	

12:30-14:00

Lunch

14:00-14:30

Closing remarks

Poster Session*

<p>63 - Modeling and Computational Analysis of Nanoparticle Adhesion on the Inflamed Endothelium</p> <p>Moon Jun Kim, Kyeihan Rhee</p>	<p>136 - Site-Specific Dosimetry of metastatic lesions in 186Re Therapy</p> <p>Maria Andreou, George Papanikolos, Giannis Vamvakas, Nikolaos Kotsakis, Maria Lyrá</p>	<p>236 - Aramis: A “virtua-mechatronic” approach for neuro-rehabilitation purposes</p> <p>Lucio Colizzi, Luigi Laneve, Nicola Savino, Andrea Martini, Alessandra Potenza, P. Cirillo, Loris Pignolo, Giuliano Dolce</p>
<p>89 - PSGLab Matlab Toolbox for Polysomnographic Data Processing: Development and Practical Application</p> <p>Vaclav Gerla, Vladana Djordjevic, Lenka Lhotska, Vladimir Krajca</p>	<p>183 - A Computer-Based Platform for Digital Breast Tomosynthesis Simulation Studies</p> <p>Anthi Malliori, Kristina Bliznakova, Nikolaos Pallikarakis</p>	<p>238 - Virtual Reality System in conjunction with Neurorobotics and Neuroprosthetics for Rehabilitation in Cerebrovascular Accidents and Spinal Cord Injuries</p> <p>Alessandro De Mauro, E. Carrasco, D. Oyarzun, A. Ardanza, C. Paloc, A. Gil, J. Florez</p>
<p>121 - A Decision Support Tool in the Field of Electroencephalography</p> <p>Vladana Djordjevic, Vaclav Gerla, Lenka Lhotska, Vladimir Krajca</p>	<p>180 - Extraction and Analysis of features acquired by wearable sensors network</p> <p>Christos Bellos, Athanasios Papadopoulos, Roberto Rosso, Dimitrios Fotiadis</p>	<p>34 - Identification of Biphasic Property in Female Menstrual Cycle from Oral, Skin and Core Body Temperatures</p> <p>Wenxi Chen, Masumi Kitazawa, Tatsuo Togawa</p>
<p>123 - Development of a Vascular Endoscopic System for Observing Inner Wall of Large Arteries for the Use of Endovascular Intervention</p> <p>Shinobu Tanaka, Kazuya Tokugi, Mitsuhiro Ogawa, Kosuke Motoi, Masamichi Nogawa, Hiroshi Ohtake, Go Watanabe, Ken-ichi Yamakoshi</p>	<p>140 - Dynamic Construction of Random Forests: Evaluation using Biomedical Engineering Problems</p> <p>Evanthia Tripoliti, Dimitrios Fotiadis, George Manis</p>	<p>112 - A New Framework for Ubiquitous Context-Aware Healthcare Applications</p> <p>Georgios Mantas, Dimitrios Lymberopoulos, Nikos Komninos</p>
<p>244 - On the exploitation of cloud computing in Bioinformatics</p> <p>Joel Arrais, José Luís Oliveira</p>	<p>284 - Knowledge extraction in a population suffering from heart failure</p> <p>Dimitris Gatsios, John Garofalakis, Theodora Chrysanthakopoulou, Evanthia Tripoliti, Renata De Maria, Maria Grazia Franzosi, Boris Schmitz, Stefan-Martin Brand and Oberdan Parodi</p>	<p>132 - A Web 2.0 Telemedicine System integrating TV-centric Services and Personal Health Records</p> <p>Alberto Faro, Daniela Giordano, Isaak Kavasidis, Concetto Spampinato</p>
<p>230 - The Variability of the T-wave Shape can Discriminate Young and Elderly Subject</p> <p>Petros Arsenos, George Manis</p>	<p>269 - Semi unsupervised M-FISH chromosome image classification</p> <p>Petros Karvelis, Aristidis Likas, Dimitrios Fotiadis</p>	<p>187 - Is SOA a Solution to Healthcare Information Systems Interoperability?</p> <p>Vasiliki Mantzana, Konstantinos Koumaditis, Marinos Themistocleous</p>
<p>43 - An Innovative e-Health Network for collaboration on emergency cases</p> <p>Christos Ilioudis, Athanasios Feygas, Kyriaki Theodorou, Konstantinos Malizos, Zoe Dailiana</p>	<p>70 - Calculation of the Current and Temperature Distribution in the Human Torso during Defibrillation</p> <p>Stergios Stavropoulos, Panagiotis Bonovas, George Kyriacou</p>	<p>199 - Doctors Mobility covered by Traumastation</p> <p>Despina Rizou, Laura Sesma Sanchez, Luca Salvatore</p>
<p>46 - An Online System for the Support of Total Hip Arthroplasty and Rapid Implant Design and Manufacturing</p> <p>Dimitris Vartziotis, Kostas Vartziotis, Victor Faessler, Evaggelos Savvas, Iraklis Goudas, Maria Zavali</p>	<p>93 - Towards building a Dynamic Bayesian Network for monitoring oral cancer progression using time-course gene expression data</p> <p>Konstantinos Exarchos, George Rigas, Yorgos Goletsis, Dimitrios Fotiadis</p>	<p>223 - The Accuracy of Respiratory Rate Estimation Using Electrocardiography and Photoplethysmography</p> <p>Dan Wu, Guan-Zheng Liu, Mico Yee Man Wong, Yuan-Ting Zhang</p>
<p>50 - Hands-on Approach for Teaching HL7 version 3</p> <p>Rita Noumeir, Jean-Francois Pambrun</p>	<p>129 - A Pilot Study on Quantitative Analysis for Table Tennis Block using a 3D Accelerometer</p> <p>Yan-Wei Guo, Guan-Zheng Liu, Bang-Yu Huang, Guo-Ru Zhao, Zhan-Yong Mei, Lei Wang</p>	<p>170 - Perceptually Lossless Compression of Angiogram Sequences</p> <p>Zahra Saffar Yazdi, Nader Karimi, Shadrokh Samavi, Shahram Shirani</p>
<p>177 - Semantic Service-oriented Integration of Healthcare IT Systems</p>	<p>179 - Prediction of Glucose Concentration in Type 1 Diabetic Patients Using Support</p>	<p>77 - Analysis of PCR-RFLP Gel Electrophoresis Images for Accurate and Automated HPV</p>

	Vector Regression	Typing
<u>Thanassis Bouras</u> , Dimitris Alexandrou, Costas Pardalis, Panagiotis Gouvas	<u>Eleni I. Georga</u> , Vasilios C. Protopappas, Demosthenes Polyzos	<u>Christos Maramis</u> , Anastasios Delopoulos, Alexandros Lambropoulos
189 - Diaphragm Postural Function Analysis using Magnetic Resonance <u>Pavel Vostatek</u> , Daniel Novak, Tomas Rychnovsky, Jiri Wild	257 - A Scoring based Monitoring System for Best Performers in Cardiac Rehabilitation Fahim Sufi, <u>Ibrahim Khalill</u>	124 - An Artificial Intelligence Technique for the Prediction of Persistent Asthma in Children <u>Eleni Chatzimichail</u> , Alexandros Rigas, Emmanouil Paraskakis
191 - An approach to MR-guided interventions with a manually-operated manipulator <u>Eftychios G. Christoforou</u> , Christoforos Keroglou, Nikolaos V. Tsekos, Eleni Andreou, Constantinos Pitris, Eleni Eracleous, Ioannis Seimenis	229 - Respiratory and Cardiovascular Responsivity to Classical Turkish Music in Schizophrenia Saime Akdemir, <u>Sadik Kara</u> , Vedat Bilgic	267 - Diagnosing Health Problems from Gait Patterns of Elderly <u>Bogdan Pogorelc</u> , Matjaž Gams
195 - In-Vivo Polyethylene Wear and Knee Prosthesis Longevity Estimation <u>Deepak Gupta</u> , Shaban Almouahed, Cyril Lahuec, Matthieu Arzel, Michel Jezequel, Chafiaa Hamitouche	162 - Adaptive Radial Artery Pulse Rate Measurement using Piezo Film Sensor Based on Ensemble Empirical Mode Decomposition <u>Mohamed Kharrat</u> , Yuki Wakuda, Shinsuke Kobayashi, Noboru Koshizuka, Ken Sakamura	152 - Fractal Analysis of Knee-joint Vibroarthrographic Signals <u>Rangaraj M. Rangayyan</u> , Faraz Oloumi
286 - Parenchymal Breast Density Estimation with the Use of Statistical Characteristics and Textons <u>Sevastianos Chatzistergos</u> , John Stoitsis, Angeliki Papaevangelou, Georgios Zografos, Konstantina Nikita	287 - Mathematical Physiological Modeling of the relation between local field potentials and spikes recorded inside the Subthalamic Nucleus <u>Kostis Michmizos</u> , Vasilios Papavasileiou, Damianos Sakas, Konstantina Nikita	113 - Data analysis of Genome-Wide Association studies (GWAS) concerning rheumatoid arthritis and multiple sclerosis Konstantina Nikolaou, <u>Fanis Kalatzis</u> , Nikolaos Giannakeas, Themis Exarchos, Sofia Markoula, Ioannis Georgiou, Dimitrios I. Fotiadis
55 - Foveation time measure in Congenital Nystagmus through second order approximation of the slow phases Giulio Pasquariello, <u>Mario Cesarelli</u> , Paolo Bifulco, Maria Romano, Antonio Fratini, Antonio La Gatta	101 - Study of different Time Attenuation Curve processing in Liver CT Perfusion <u>M. D'Antò</u> , M. Cesarelli, P. Bifulco, M. Romano, V. Cerciello, F. Fiore, A. Vecchione	59 - Continuous remote telemonitoring of ICD may help in prevention of inappropriate defibrillator shock delivery L. Argenziano, P. Bifulco, <u>M. Cesarelli</u> , L. Chianese, S. Casella, D. Campobasso, L. Marullo
196 - An Italian simulation center as a teaching-learning strategy P. Lago , S. Perlini , I. ValloneI, C. Lombardi , M. Di Paolo	197 - From Laparoscopic Surgery to 3-D Double Console P. Lago, C. Lombardi and I. Vallone	178 - Optimizing Lung Volume Segmentation By Texture Classification Panayiotis Korfiatis, Alexandra Kazantzi, Christina Kalogeropoulou, Theodoros Petsas, <u>Lena Costaridou</u>

*Posters will be placed at the conference premises on Wednesday November 3rd and will remain there until 12:00 noon on Thursday 4th of November.

The poster should be placed on the poster board at least half an hour before the beginning of the poster session.

The author of the poster must be present at the poster session during the following hours:

14:00-15:00 Wednesday 3 November 2010

11:00-12:00 Thursday 4 November 2010