

Table of Contents

Biosignal Processing

Quantitative Analysis of Two-Dimensional Catch-Up Saccades Executed to the Target Jumps in the Time-Continuous Trajectory	1
<i>Vincas Laurutis, Raimondas Zemblys</i>	
Spike Sorting Based on Dominant-Sets Clustering	5
<i>D.A. Adamos, N.A. Laskaris, E.K. Kosmidis, G. Theophilidis</i>	
Differentiation of Human Bone Marrow Stromal Cells onto Gelatin Cryogel Scaffolds	9
<i>L. Fassina, E. Saino, L. Visai, M.A. Avanzini, M.G. Cusella De Angelis, F. Benazzo, S. Van Vlierberghe, P. Dubruel, G. Magenes</i>	
Simple Coherence vs. Multiple Coherence: A Somatosensory Evoked Response Detection Investigation.....	13
<i>D.B. Melges, A.M.F.L. Miranda de Sá, A.F.C. Infantosi</i>	
Measure of Similarity of ECG Cycles	17
<i>Á. Jobbágy, Á. Nagy</i>	
Wavelet Phase Synchronization between EHG's at different Uterine Sites: Comparison of Pregnancy and Labor Contractions	21
<i>M. Hassan, Á. Alexandersson, J. Terrien, B. Karlsson, C. Marque</i>	
Dynamic Generation of Physiological Model Systems	25
<i>J. Kretschmer, A. Wahl, K. Moeller</i>	
Random Forest-Based Classification of Heart Rate Variability Signals by Using Combinations of Linear and Nonlinear Features	29
<i>Alan Jovic, Nikola Bogunovic</i>	
Validation of MRS Metabolic Markers in the Classification of Brain Gliomas and Their Correlation to Energy Metabolism.....	33
<i>M.G. Kounelakis, M.E. Zervakis, G.J. Postma, L.M.C. Buydens, A. Heerschap, X. Kotsiakos</i>	
Event-Related Synchronization/Desynchronization for Evaluating Cortical Response Detection Induced by Dynamic Visual Stimuli	37
<i>P.J.G. Da-Silva, A.F.C. Infantosi, J. Nadal</i>	
Investigating the EEG Alpha Band during Kinesthetic and Visual Motor Imagery of the Spike Volleyball Movement	41
<i>M.V. Stecklow, M. Cagy, A.F.C. Infantosi</i>	
Principal Components Clustering through a Variance-Defined Metric	45
<i>J.C.G.D. Costa, D.B. Melges, R.M.V.R. Almeida, A.F.C. Infantosi</i>	

A Kurtosis-Based Automatic System Using Naïve Bayesian Classifier to Identify ICA Components Contaminated by EOG or ECG Artifacts	49
<i>M.A. Klados, C. Bratsas, C. Frantzidis, C.L. Papadelis, P.D. Bamidis</i>	
Correlation between Fractal Behavior of HRV and Neurohormonal and Functional Indexes in Chronic Heart Failure	53
<i>G. D'Addio, M. Cesarelli, M. Romano, A. Accardo, G. Corbi, R. Maestri, M.T. La Rovere, Paolo Bifulco, N. Ferrara, F. Rengo</i>	
On the Selection of Time Interval and Frequency Range of EEG Signal Preprocessing for P300 Brain-Computer Interfacing	57
<i>N.V. Manyakov, N. Chumerin, A. Combaz, M.M. Van Hulle</i>	
Development of a Simple and Cheap Device for Movement Analysis	61
<i>Csanád G. Erdős, Gergő Farkas, Béla Pataki</i>	
Signal Peptide Prediction in Single Transmembrane Proteins Using the Continuous Wavelet Transform	65
<i>I.A. Avramidou, I.K. Kitsas, L.J. Hadjileontiadis</i>	
Comparison of AM-FM Features with Standard Features for the Classification of Surface Electromyographic Signals	69
<i>C.I. Christodoulou, P.A. Kaplanis, V. Murray, M.S. Pattichis, C.S. Pattichis</i>	
Studying Brain Visuo-Tactile Integration through Cross-Spectral Analysis of Human MEG Recordings	73
<i>S. Erla, C. Papadelis, L. Faes, C. Braun, G. Nollo</i>	
Patient-Specific Seizure Prediction Using a Multi-feature and Multi-modal EEG-ECG Classification	77
<i>M. Valderrama, S. Nikolopoulos, C. Adam, Vincent Navarro, M. Le Van Quyen</i>	
Horizontal Directionality Characteristics of the Bat Head-Related Transfer Function	81
<i>S.Y. Kim, D. Nikolić, A.C. Meruelo, R. Allen</i>	
Assessment of Human Performance during High-Speed Marine Craft Transit	85
<i>D. Nikolić, R. Collier, R. Allen</i>	
Effects of Electrochemotherapy on Microcirculatory Vasomotion in Tumors	89
<i>T. Jarm, B. Cugmas, M. Cemazar</i>	
Non-linear Modeling of Cerebral Autoregulation Using Cascade Models	93
<i>N.C. Angarita-Jaimes, O.P. Dewhirst, D.M. Simpson</i>	
The Epsilon-Skew-Normal Dictionary for the Decomposition of Single- and Multichannel Biomedical Recordings Using Matching Pursuit Algorithms	97
<i>D. Strohmeier, A. Halbleib, M. Gratkowski, J. Haueisen</i>	
On the Empirical Mode Decomposition Performance in White Gaussian Noise Biomedical Signals	101
<i>A. Karagiannis, Ph. Constantinou</i>	

Table of Contents	XV
Simulation of Biomechanical Experiments in OpenSim	107
<i>I. Symeonidis, G. Kavadarli, E. Schuller, S. Peldschus</i>	
Comparing Sensorimotor Cortex Activation during Actual and Imaginary Movement	111
<i>A. Athanasiou, E. Chatzitheodorou, K. Kalogianni, C. Lithari, I. Moulos, P.D. Bamidis</i>	
Graph Analysis on Functional Connectivity Networks during an Emotional Paradigm	115
<i>C. Lithari, M.A. Klados, P.D. Bamidis</i>	
MORFEAS: A Non-Invasive System for Automated Sleep Apnea Detection Utilizing Snore Sound Analysis	119
<i>Charalampos Doukas, Theodoros Petsatodis, Ilias Maglogiannis</i>	
Improved Optical Method for Measuring Concentration of Uric Acid Removed during Dialysis	124
<i>J. Jerotskaja, F. Uhlin, M. Luman, K. Lauri, I. Fridolin</i>	
Correlations between Longitudinal Corneal Apex Displacement, Head Movements and Pulsatile Blood Flow	128
<i>M. Danielewska, H. Kasprzak, M. Kowalska</i>	
The Analog Processing and Digital Recording of Electrophysiological Signals	132
<i>F. Babarada, J. Arhip, C. Ravariu</i>	
Parameter Selection in Approximate and Sample Entropy-Complexity of Acute and Chronic Stress Response	136
<i>T. Loncar Turukalo, O. Sarenac, N. Japundzic-Zigon, D. Bajic</i>	
The Importance of Uterine Contractions Extraction in Evaluation of the Progress of Labour by Calculating the Values of Sample Entropy from Uterine Electromyogram	140
<i>J. Vrhovec, D. Rudel, A. Macek Lebar</i>	
Simultaneous Pnemo- and Photoplethysmographic Recording of Oscillometric Envelopes Applying a Local Pad-Type Cuff on the Radial Artery	144
<i>R. Raamat, K. Jagomägi, J. Talts, J. Kivastik</i>	
Estimation of Mean Radial Blood Pressure in Critically Ill Patients	148
<i>K. Jagomägi, J. Talts, P. Tähepöld, R. Raamat, J. Kivastik</i>	
Photoplethysmographic Assessment of the Pressure-Compliance Relationship for the Radial Artery	152
<i>J. Talts, R. Raamat, K. Jagomägi, J. Kivastik</i>	
High Frequency Acoustic Properties for Cutaneous Cell Carcinomas In Vitro	156
<i>L.I. Petrella, W.C.A. Pereira, P.R. Issa, H.A. Valle, C.J. Martins, J.C. Machado</i>	
Gender-Related Effects of Carbohydrate Ingestion and Hypoxia on Heart Rate Variability: Linear and Non-linear Analysis	160
<i>T. Princi, M. Klemenc, P. Golja, A. Accardo</i>	
On the Analysis of Dynamic Lung Mechanics Separately in Ins- and Expiration	164
<i>K. Möller, Z. Zhao, C.A. Stahl, J. Guttman</i>	

Clinical Validation of an Algorithm for Automatic Detection of Atrial Fibrillation from Single Lead ECG	168
<i>M. Triventi, G. Calcagnini, F. Censi, E. Mattei, F. Mele, P. Bartolini</i>	
Mental and Motor Task Classification by LDA	172
<i>N. Gursel Ozmen, L. Gumusel</i>	
The Human Subthalamic Nucleus – Knowledge for the Understanding of Parkinson’s Disease	176
<i>T. Heida, E. Marani</i>	
Dissociated Neurons from an Extended Rat Subthalamic Area - Spontaneous Activity and Acetylcholine Addition	180
<i>T. Heida, E. Marani</i>	
Nigro-Subthalamic and Nigro-Trigeminal Projections in the Rat	184
<i>E. Marani, N.E. Lazarov, T. Heida, K.G. Usunoff</i>	
Statistical Estimate on Indices Associated to Atherosclerosis Risk	188
<i>C.M. Ipate, A. Machedon, M. Morega</i>	
Study of Some EEG Signal Processing Methods for Detection of Epileptic Activity	192
<i>R. Matei, D. Matei</i>	
Continuous Wavelet Transformation of Pattern Electroretinogram (PERG) - A Tool Improving the Test Accuracy	196
<i>K. Penkala</i>	
An Interactive Tool for Customizing Clinical Transcranial Magnetic Stimulation (TMS) Experiments	200
<i>A. Faro, D. Giordano, I. Kavasidis, C. Pino, C. Spampinato, M.G. Cantone, G. Lanza, M. Pennisi</i>	
 Medical Imaging	
Measurement Methodology for Temporomandibular Joint Displacement Based on Focus Mutual Information Alignment of CBCT Images.....	204
<i>W. Jacquet, E. Nyssen, B. Vande Vannet</i>	
Computer Aided Diagnosis of Diffuse Lung Disease in Multi-detector CT – Selecting 3D Texture Features	208
<i>I. Mariolis, P. Korfiatis, C. Kalogeropoulou, D. Daoussis, T. Petsas, L. Costaridou</i>	
Statistical Pre-processing Method for Peripheral Quantitative Computed Tomography Images	212
<i>T. Cervinka, H. Sievanen, M. Hannula, J. Hyttinen</i>	
Security and Reliability of Data Transmissions in Biotelemetric System.....	216
<i>M. Stankus, M. Penhaker, V. Srovnal, M. Cerny, V. Kasik</i>	
A Novel Approach for Implementation of Dual Energy Mapping Technique in CT-Based Attenuation Correction Using Single kV_P Imaging: A Feasibility Study	220
<i>B. Teimourian, M.R. Ay, H. Ghadiri, M. Shamsaei Zafarghandi, H. Zaidi</i>	

Computational Visualization of Tumor Virotherapy	224
<i>X.F. Gao, M. Tangney, S. Tabirca</i>	
New Approaches for Continuous Non Invasive Blood Pressure Monitoring	228
<i>Petr Zurek, Martin Cerny, Michal Prauzek, Ondrej Krejcar, Marek Penhaker</i>	
Wireless Power and Data Transmission for Robotic Endoscopic Capsules	232
<i>R. Carta, J. Thoné, R. Puers</i>	
Ulcer Detection in Wireless Capsule Endoscopy Images Using Bidimensional Nonlinear Analysis	236
<i>Vasileios Charisis, Alexandra Tsiligiri, Leontios J. Hadjileontiadis, Christos N. Liatsos, Christos C. Mavrogiannis, George D. Sergiadis</i>	
Pre-clinical Physiological Data Acquisition and Testing of the IMAGE Sensing Device for Exercise Guidance and Real-Time Monitoring of Cardiovascular Disease Patients	240
<i>A. Astaras, A. Kokonozi, E. Michail, D. Filos, I. Chouvarda, O. Grossenbacher, J.-M. Koller, R. Leopoldo, J.-A. Porchet, M. Correvo, J. Luprano, A. Sipilä, N. Maglaveras</i>	
Thermal Images of Electrically Stimulated Breast: A Simulation Study	244
<i>H. Feza Carlak, Nevzat G. Gençer, Cengiz Beşikçi</i>	
Magnetic Resonance Current Density Imaging Using One Component of Magnetic Flux Density: An Experimental Study	248
<i>A. Ersöz, B.M. Eyüboğlu</i>	
Computer-Aided Detection of COPD Using Digital Chest Radiographs	252
<i>L. Nikhazy, G. Horváth, Á. Horváth, V. Müller</i>	
Localisation, Registration and Visualisation of MRS Volumes of Interest on MR Images	256
<i>Yu Sun, Nigel P. Davies, Kal Natarajan, Theodoros N. Arvanitis, Andrew C. Peet</i>	
Magnetic Marker Monitoring: A Novel Approach for Magnetic Marker Design	260
<i>S. Biller, D. Baumgarten, J. Hauelsen</i>	
Corneal Nerves Segmentation and Morphometric Parameters Quantification for Early Detection of Diabetic Neuropathy	264
<i>Ana Ferreira, António Miguel Morgado, José Silvestre Silva</i>	
Novel Catheters for In Vivo Research and Pharmaceutical Trials Providing Direct Access to Extracellular Space of Target Tissues	268
<i>M. Bodenlenz, C. Hoefflerer, F. Feichtner, C. Magnes, R. Schaller, J. Friedl, T. Birngruber, F. Sinner, L. Schaupp, S. Korsatko, T.R. Pieber</i>	
Statistical Texture Analysis of MRI Images to Classify Patients Affected by Multiple Sclerosis	272
<i>A. Faro, D. Giordano, C. Spampinato, M. Pennisi</i>	
WAEDA: A Wearable Affective Device with On-Chip Signal Processing Capabilities for Measuring ElectroDermal Activity	276
<i>E.I. Konstantinidis, C.A. Frantzidis, C. Papadelis, C. Pappas, P.D. Bamidis</i>	

A Modular Architecture of a Computer-Operated Olfactometer for Universal Use	280
<i>A. Komnidis, E. Konstantinidis, I. Stylianou, M.A. Klados, A. Kalfas, P.D. Bamidis</i>	
The Role of Geometry of the Human Carotid Bifurcation in the Formation and Development of Atherosclerotic Plaque	284
<i>P.G. Kalozoumis, A.I. Kalfas, A.D. Giannoukas</i>	
A Wearable Wireless ECG Sensor: A Design with a Minimal Number of Parts	288
<i>E.S. Valchinov, N.E. Pallikarakis</i>	
Active Contours without Edges Applied to Breast Lesions on Ultrasound	292
<i>W. Gómez, A.F.C. Infantosi, L. Leija, W.C.A. Pereira</i>	
Automatic Identification of Trabecular Bone Fracture	296
<i>S. Tassani, P.A. Asvestas, G.K. Matsopoulos, F. Baruffaldi</i>	
Visualization System to Improve Surgical Performance during a Laparoscopic Procedure	300
<i>L.T. De Paolis, M. Pulimeno, G. Aloisio</i>	
The Blood Perfusion Mapping in the Human Skin by Photoplethysmography Imaging	304
<i>U. Rubins, R. Ertz, V. Nikiforovs</i>	
Fingerprint Matching with Self Organizing Maps	307
<i>A.N. Ouzounoglou, T.L. Economopoulos, P.A. Asvestas, G.K. Matsopoulos</i>	
A Novel Model for Monte Carlo Simulation of Performance Parameters of the Rodent Research PET (RRPET) Camera Based on NEMA NU-4 Standards	311
<i>N. Zeraatkar, M.R. Ay, A.R. Kamali-Asl, H. Zaidi</i>	
Is the Average Gray-Level from Ultrasound B-Mode Images Able to Estimate Temperature Variations in Ex-Vivo Tissue?	315
<i>César A. Teixeira, A.V. Alvarenga, M.A. von Krüger, W.C.A. Pereira</i>	
CT2MCNP: An Integrated Package for Constructing Patient-Specific Voxel-Based Phantoms Dedicated for MCNP(X) Monte Carlo Code	319
<i>A. Mehranian, M.R. Ay, H. Zaidi</i>	
Noise Reduction in Fluoroscopic Image Sequences for Joint Kinematics Analysis	323
<i>T. Cerciello, P. Bifulco, M. Cesarelli, L. Paura, M. Romano, G. Pasquariello, R. Allen</i>	
The Influence of Patient Miscentering on Patient Dose and Image Noise in Two Commercial ct Scanners	327
<i>M.A. Habibzadeh, M.R. Ay, A.R. Kamali asl, H. Ghadiri, H. Zaidi</i>	
A Study on Performance of a Digital Image Acquisition System in Mammography Diagnostic	331
<i>D. Dimitric, G. Nisevic, Z. Boskovic, A. Vasic</i>	
An Efficient Video-Synopsis Technique for Optical Recordings with Application to the Analysis of Rat Barrel-Cortex Responses	335
<i>V. Tsitlakidis, N.A. Laskaris, G.C. Koudounis, E.K. Kosmidis</i>	

Table of Contents	XIX
Preoperative Planning Software for Hip Replacement	339
<i>M. Michalíková, L. Bednarčíková, T. Tóth, J. Živčák</i>	
Entropy: A Way to Quantify Complexity in Calcium Dynamics	343
<i>A. Fanelli, F. Esposti, J. Ion Titapiccolo, M.G. Signorini</i>	
A New Fluorescence Image-Processing Method to Visualize Ca²⁺ - Release and Uptake Endoplasmatic Reticulum Microdomains in Cultured Glia	347
<i>J. Ion Titapiccolo, F. Esposti, A. Fanelli, M.G. Signorini</i>	
Experimental Measurement of Modulation Transfer Function (MTF) in Five Commercial CT Scanners	351
<i>S.M. Akbari, M.R. Ay, A.R. Kamali asl, H. Ghadiri, H. Zaidi</i>	
Microcalcifications Segmentation Procedure Based on Morphological Operators and Histogram Filtering	355
<i>M.A. Duarte, A.V. Alvarenga, C.M. Azevedo, A.F.C. Infantosi, W.C.A. Pereira</i>	
Segmentation of Anatomical Structures on Chest Radiographs	359
<i>S. Juhász, Á. Horváth, L. Nikhazy, G. Horváth, Á. Horváth</i>	
Lung Nodule Detection on Rib Eliminated Radiographs	363
<i>G. Orbán, Á. Horváth, G. Horváth</i>	
An Improved Algorithm for Out-of-Plane Artifacts Removal in Digital Tomosynthesis Reconstructions	367
<i>K. Bliznakova, Z. Bliznakov, N. Pallikarakis</i>	
Magnetic Resonance Imaging of Irreversible Electroporation in Tubers	371
<i>Mohammad Hjouj and Boris Rubinsky</i>	
Superposition of Activations of SWI and fMRI Acquisitions of the Motor Cortex	376
<i>M. Matos, M. Forjaz Secca, M. Noseworthy</i>	
Medical Devices and Instrumentation	
A New Optical Method for Measuring Creatinine Concentration during Dialysis	379
<i>I. Fridolin, J. Jerotskaja, K. Lauri, F. Uhlin, M. Luman</i>	
The Role of Viscous Damping on Quality of Haptic Interaction in Upper Limb Rehabilitation Robot: A Simulation Study	383
<i>J. Oblak, I. Cikajlo, T. Keller, J.C. Perrry, J. Veneman, Z. Matjačić</i>	
A New Fibre Optic Pulse Oximeter Probe for Monitoring Splanchnic Organ Arterial Blood Oxygen Saturation	387
<i>M. Hickey, N. Samuels, N. Randive, R. Langford, P.A. Kyriacou</i>	
Electrical Properties of Teeth Regarding the Electric Vitality Testing	391
<i>T. Marjanović, Z. Stare, M. Ranilović</i>	
Stiffness of a Small Tissue Phantom Measured by a Tactile Resonance Sensor	395
<i>V. Jalkanen, B.M. Andersson, O.A. Lindahl</i>	

Vectorial Magnetoencephalographic Measurements for the Estimation of Radial Dipolar Activity in the Human Somatosensory System	399
<i>J. Haueisen, K. Fleissig, D. Strohmeier, R. Huonker, M. Liehr, O.W. Witte</i>	
Registration of Chest X-Rays	402
<i>J. Csorba, B. Kormanyos, B. Pataki</i>	
Arterial Pulse Transit Time Dependence on Applied Pressure	406
<i>K. Pilt, K. Meigas, M. Viigimaa, J. Kaik, R. Kattai, D. Karai</i>	
Influence of an Artificial Valve Type on the Flow in the Ventricular Assist Device	410
<i>D. Obidowski, P. Klosinski, P. Reorowicz, K. Jozwik</i>	
A New Stimulation Technique for Electrophysiological Color Vision Testing	414
<i>M. Zaleski, K. Penkala</i>	
Novel TiN-Based Dry EEG Electrodes: Influence of Electrode Shape and Number on Contact Impedance and Signal Quality	418
<i>P. Fiedler, S. Brodkorb, C. Fonseca, F. Vaz, F. Zanow, J. Haueisen</i>	
A Finite Element Method Study of the Current Density Distribution in a Capacitive Intrabody Communication System	422
<i>Ž. Lučev, A. Koričan, M. Cifrek</i>	
Voice Controlled Neuroprosthesis System	426
<i>D.C. Irimia, M.S. Poboroniuc, M.C. Stefan, Gh. Livint</i>	
Preoperative Planning Program Tool in Treatment of Articular Fractures: Process of Segmentation Procedure	430
<i>M. Tomazevic, D. Kreuh, A. Kristan, V. Puketa, M. Cimerman</i>	
Neuroimaging of Emotional Activation: Issues on Experimental Methodology, Analysis and Statistics	434
<i>C. Styliadis, C. Papadelis, P.D. Bamidis</i>	
Using Grid Infrastructure for the Promotion of Biomedical Knowledge Mining	438
<i>A. Chatziioannou, I. Kanaris, C. Doukas, Ilias Maglogiannis</i>	
A Laboratory Scale Facility for the Parametric Characterization of the Intraocular Pressure of the Human Eye	442
<i>A.V. Michailidou, P. Chatzi, P.G. Kalozoumis, A.I. Kalfas, M. Pappa, I. Tsiafis, E.I. Konstantinidis, P.D. Bamidis</i>	
AM-FM Texture Image Analysis in Multiple Sclerosis Brain White Matter Lesions	446
<i>C.P. Loizou, V. Murray, M.S. Pattichis, M. Pantziaris, I. Seimenis, C.S. Pattichis</i>	
Reliable Hysteroscopy Color Imaging	450
<i>I. Constantinou, V. Tanos, M. Neofytou, C. Pattichis</i>	
Comparison of Methods of Measurement of Head Position in Neurological Practice	455
<i>P. Kutilek, J. Charfreitag, J. Hozman</i>	

The Nanoporous Al₂O₃ Material Used for the Enzyme Entrapping in a Glucose Biosensor	459
<i>C. Ravariu, A. Popescu, C. Podaru, E. Manea, F. Babarada</i>	
Hand-Held Resonance Sensor Instrument for Soft Tissue Stiffness Measurements – A First Study on Biological Tissue <i>In Vitro</i>	463
<i>V. Jalkanen, O.A. Lindahl</i>	
Head Position Monitoring System	467
<i>P. Cech, J. Dlouhy, M. Cizek, J. Rozman, I. Vicha</i>	
Short Range Wireless Link for Data Acquisition in Medical Equipment	471
<i>N.M. Roman, S. Gergely, R.V. Ciupa, M.V. Pusca</i>	
Corneal Quantitative Fluorometry – A Slit-Lamp Based Platform	475
<i>J.P. Domingues, Isa Branco, A.M. Morgado</i>	
Automatic Detection of Patients' Spontaneous Activity during Pressure Support Ventilation	479
<i>G. Matrone, F. Mojoli, A. Orlando, A. Braschi, G. Magenes</i>	
Determination of In Vivo Three-Dimensional Lower Limb Kinematics for Simulation of High-Flexion Squats	483
<i>P.D. Wong, B. Callewaert, K. Desloovere, L. Labey, B. Innocenti</i>	
Evaluation of Chronic Diabetic Wounds with the Near Infrared Wound Monitor	487
<i>Michael Neidrauer, Leonid Zubkov, Michael S. Weingarten, Kambiz Pourrezaei, Elisabeth S. Papazoglou</i>	
Non-contact UWB Radar Technology to Assess Tremor	490
<i>G. Blumrosen, M. Uziel, B. Rubinsky, D. Porrat</i>	
High Frequency Mechanical Vibrations Stimulate the Bone Matrix Formation in hBMSCs (Human Bone Marrow Stromal Cells)	494
<i>D. Prè, G. Ceccarelli, M.G. Cusella De Angelis, G. Magenes</i>	
Mobispiro: A Novel Spirometer	498
<i>Eleni J. Sakka, Pantelis Aggelidis, Markela Psimarnou</i>	
A Computer Program for the Functional Assessment of the Rotational Vestibulo-Ocular Reflex (VOR)	502
<i>A. Böhler, M. Mandalá, S. Ramat</i>	
New Application for Automatic Hemifield Damage Identification in Humphrey Field Analyzer (HFA) Visual Fields	506
<i>A. Salonikiou, V. Kilintzis, A. Antoniadis, F. Topouzis</i>	
The Effect of Mechano- and Magnetochemically Synthesized Magnetosensitive Nanocomplex and Electromagnetic Irradiation on Animal Tumor	510
<i>V.E. Orel, A.V. Romanov, I.I. Dzyatkovska, M.O. Nikolov, Yu.G. Mel'nik, N.M. Dzyatkovska, I.B. Shchepotin</i>	
Verification of Measuring System for Automation Intra – Abdominal Pressure Measurement	513
<i>T. Tóth, M. Michalíková, L. Bednarčíková, M. Petrík, J. Živčák</i>	

Evolution in Bladder Pressure Measuring Implants Developed at K.U. Leuven	517
<i>P. Jourand, J. Coosemans, R. Puers</i>	
Including the Effect of the Thermal Wave in Theoretical Modeling for Radiofrequency Ablation	521
<i>J.A. López Molina, M.J. Rivera, M. Trujillo, V. Romero-García, E.J. Berjano</i>	
Textile Integrated Monitoring System for Breathing Rhythm of Infants	525
<i>H. De Clercq, P. Jourand, R. Puers</i>	
Comparison between VHDL-AMS and PSPICE Modeling of Ultrasound Measurement System for Biological Medium	529
<i>N. Aouzale, A. Chitnalah, H. Jakjoud, D. Kourtiche, M. Nadi</i>	
Stimulation Parameter Testing and Verification during Pacing	533
<i>Martin Augustynek, Marek Penhaker, Pavel Sazel, David Korpas</i>	
Biosignal Monitoring and Processing for Management of Hypertension	537
<i>A. Stan, R. Lupu, M. Ciorap, R. Ciorap</i>	
Design and Development of an Electrophysiological Signal Acquisition System: A Technological Aid for Research, Teaching and Clinical Application	541
<i>E. Villavicencio, D. García, L. Navarro, M. Torres, R. Huamaní, L.F. Yabar</i>	
Numerical Models of an Artery with different Stent Types	545
<i>M. Brand, M. Ryukin, S. Einav, I. Avrahami, J. Rosen, M. Teodorescu</i>	
A Macro-quality Field Control of Dual Energy X-Ray Absorptiometry with Anatomical, Chemical and Computed Tomographical Variables	549
<i>A. Scafoglieri, S. Provyn, O. Louis, J.A. Wallace, J. De Mey, J.P. Clarys</i>	
Digital Filter in Hardware Loop for On Line ECG Signal Baseline Wander Reduction	554
<i>A. Petrenas, V. Marozas, S. Daukantas, A. Lukosevicius</i>	
 Biomedical Measurements and Modeling	
Assessment of a Patient-Specific Silicon Model of the Human Arterial Forearm	558
<i>K. Van Canneyt, F. Giudici, P. Segers, P. Verdonck</i>	
Numerical Investigations of the Strain-Adaptive Bone Remodeling in the Prosthetic Pelvis ...	562
<i>A. Bouguecha, I. Elgaly, C. Stukenborg-Colsman, M. Lerch, I. Nolte, P. Wefstaedt, T. Matthias, B.-A. Behrens</i>	
Development of a System Dynamics Model for Cost Estimation for the Implantation and Revision of Hip Joint Endoprosthesis	566
<i>J. Schröttner, A. Herzog</i>	
The Volume Regulation and Accumulation of Synovial Fluid between Articular Plateaus of Knee Joints	570
<i>M. Petrtyl, J. Danesova, J. Lísal</i>	

Anthropometric Measurements and Model Evaluation of Mass-Inertial Parameters of the Human Upper and Lower Extremities	574
<i>G.S. Nikolova</i>	
Validation of a Person Specific 1-D Model of the Systemic Arterial Tree	578
<i>P. Reymond, Y. Bohraus, F. Perren, F. Lazeyras, N. Stergiopoulos</i>	
First Trimester Diagnosis of Trisomy-21 Using Artificial Neural Networks	580
<i>C.N. Neocleous, K. Nikolaides, K. Neokleous, C.N. Schizas</i>	
Numerical Analysis of a Novel Method for Temperature Gradient Measurement in the Vicinity of Warm Inflamed Atherosclerotic Plaques	584
<i>Z. Aronis, E. Massarwa, L. Rosen, O. Rotman, R. Elias, R. Haj-Ali, S. Einav</i>	
A Multilevel and Multiscale Approach for the Prediction of Oral Cancer Reoccurrence	588
<i>Konstantinos P. Exarchos, G. Rigas, Yorgos Goletsis, Dimitrios I. Fotiadis</i>	
An Automated Method for Levodopa-Induced Dyskinesia Detection and Severity Classification	592
<i>M.G. Tsipouras, A.T. Tzallas, G. Rigas, P. Bougia, D.I. Fotiadis, S. Konitsiotis</i>	
Electrospinning Poly(<i>o</i>-methoxyaniline) Nanofibers for Tissue Engineering Applications	596
<i>Wen-Tyng Li, Mu-Feng Shie, Chung-Feng Dai, Jui-Ming Yeh</i>	
Diagnosis of Asthma Severity Using Artificial Neural Networks	600
<i>E. Chatzimichail, A. Rigas, E. Paraskakis, A. Chatzimichail</i>	
Enhanced Stem Cells Characteristic of Fibroblastic Mesenchymal Cells from HHT Patients	604
<i>G. Silvani, L. Benedetti, N. Crosetto, C. Olivieri, D. Galli, B. Magnani, G. Magenes, M.G. Cusella De Angelis</i>	
High Frequency Vibration (HFV) Induces Muscle Hypertrophy in Newborn Mice and Enhances Primary Myoblasts Fusion in Satellite Cells	608
<i>G. Ceccarelli, L. Benedetti, D. Prè, D. Galli, L. Vercesi, G. Magenes, M.G. Cusella De Angelis</i>	
Surface Characterization of Collagen Films by Atomic Force Microscopy	612
<i>A. Stylianou, S.B. Kontomaris, M. Kyriazi, D. Yova</i>	
Changes in Electrocardiogram during Intra-Abdominal Electrochemotherapy: A Preliminary Report	616
<i>B. Mali, T. Jarm, E. Gadžihev, G. Serša, D. Miklavčič</i>	
Studying Postural Sway Using Wearable Sensors: Fall Prediction	620
<i>A. Turcato, S. Ramat</i>	
From Biomedical Research to Spin-Off Companies for the Health Care Market	624
<i>O.A. Lindahl, B. Andersson, R. Lundström, K. Ramser</i>	
A Continuous-Time Dynamical Model for the Vestibular Nucleus	627
<i>A. Korodi, V. Ceregan, T.L. Dragomir, A. Codrean</i>	

Fast Optical Signal in the Prefrontal Cortex Correlates with EEG	631
<i>A.V. Medvedev, J.M. Kainerstorfer, S.V. Borisov, J. VanMeter</i>	
Using Social Semantic Web Technologies in Public Health: A Prototype Epidemiological Semantic Wiki	635
<i>C. Bratsas, A. Tzalavra, V. Vescoukis, P. Bamidis</i>	
Patellofemoral Contact during Simulated Weight Bearing Squat Movement: A Cadaveric Study	639
<i>A. Van Haver, J. Quintelier, M. De Beule, P. Verdonk, F. Almquist, P. De Baets</i>	
Rapid Prototype Development for Studying Human Activity	643
<i>A. Feugas, P. Tsompanopoulou, S. Lalis</i>	
Rheological and Electrical Properties of RBC Suspensions in Dextran 70. Changes in RBC Morphology	647
<i>N. Antonova, I. Ivanov, Y. Gluhcheva, E. Zvetkova</i>	
Numerical Simulation In Magnetic Drug Targeting. Magnetic Field Source Optimization	651
<i>A. Dobre, A.M. Morega</i>	
Ontology for Modeling Interaction in Ambient Assisted Living Environments	655
<i>J.B. Mocholí, P. Sala, C. Fernández-Llata, J.C. Naranjo</i>	
Protein Surface Atom Neighborhood Functional Description	659
<i>P.D. Cristea, R. Tuduce, O. Arsene</i>	
Performance Evaluation of a Grid-Based Heart Simulator	663
<i>R.S. Campos, M.P. Xavier, M. Lobosco, R.W. dos Santos</i>	
A Web-Based Tool for the Automatic Segmentation of Cardiac MRI	667
<i>T.H. de Paula, M. Lobosco, R.W. dos Santos</i>	
Improved Modeling of Lane Intensity Profiles on Gel Electrophoresis Images	671
<i>C.F. Maramis, A.N. Delopoulos</i>	
Affective Learning: Empathetic Embodied Conversational Agents to Modulate Brain Oscillations	675
<i>C.N. Moridis, M.A. Klados, V. Terzis, A.A. Economides, V.E. Karabatakis, A. Karlovasitou, P.D. Bamidis</i>	
The Role of Electrically Stimulated Endocytosis in Gene Electrotransfer	679
<i>M. Pavlin, M. Kanduđer, G. Pucihar, D. Miklavčič</i>	
A Frequency Synchronization Study on the Temporal and Spatial Evolution of Emotional Visual Processing Using Wavelet Entropy and IAPS Picture Collection	683
<i>C.A. Frantzidis, C. Pappas, P.D. Bamidis</i>	
Frontal EEG Asymmetry and Affective States: A Multidimensional Directed Information Approach	687
<i>P.C. Petrantonakis, L.J. Hadjileontiadis</i>	

A Game-Like Interface for Training Seniors' Dynamic Balance and Coordination	691
<i>A.S. Billis, E.I. Konstantinidis, C. Mouzakidis, M.N. Tsolaki, C. Pappas, P.D. Bamidis</i>	
Incorporating Electroporation-Related Conductivity Changes into Models for the Calculation of the Electric Field Distribution in Tissue	695
<i>I. Lacković, R. Magjarević, D. Miklavčič</i>	
Automated Estimation of 3D Camera Extrinsic Parameters for the Monitoring of Physical Activity of Elderly Patients	699
<i>R. Deklerck, B. Jansen, X.L. Yao, J. Cornelis</i>	
Robotic System for Training of Grasping and Reaching	703
<i>J. Podobnik, M. Munih</i>	
Recognition and Identification of Red Blood Cell Size Using Angular Radial Transform and Neural Networks	707
<i>G. Apostolopoulos, S. Tsinopoulos, E. Dermatas</i>	
Collagen Gel as Cell Extracellular Environment to Study Gene Electrotransfer	711
<i>S. Haberl, D. Miklavčič, M. Pavlin</i>	
The Influence of Seat Pan and Trunk Inclination on Muscles Activity during Sitting on Forward Inclined Seats	715
<i>A. Mastalerz, I. Palczewska</i>	
Radiation Exposure in Routine Practice with PET/CT and Automatic Infusion System – Practical Experience Report	719
<i>P. Tomše, A. Biček</i>	
A Pilot Study for Development of Shoulder Proprioception Training System Using Virtual Reality for Patients with Stroke: The Effect of Manipulated Visual Feedback	722
<i>S.W. Cho, J.H. Ku, Y.J. Kang, K.H. Lee, J.Y. Song, H.J. Kim, I.Y. Kim, S.I. Kim</i>	
Computer Modeling to Study the Dynamic Response of the Temperature Control Loop in RF Cardiac Ablation	725
<i>J. Alba, M. Trujillo, R. Blasco, E.J. Berjano</i>	
Mechanical Properties of Long Bone Shaft in Bending	729
<i>S.M. Rajaai, K. PourAkbar Saffar, N. JamilPour</i>	
Active Behavior of Peripheral Nerves during Magnetic Stimulation	733
<i>M. Cretu, R. Ciupa, L. Darabant</i>	
Preparations' Methodology for the Introduction of Information Systems in Hospitals	737
<i>J. Sarivougioukas, A. Vagelatos, Ch. Kalamara</i>	
Supervised and Unsupervised Finger Vein Segmentation in Infrared Images Using KNN and NNCA Clustering Algorithms	741
<i>M. Vlachos, E. Dermatas</i>	
An Echocardiographic Study for Assessment the Indices of Arterial and Ventricular Stiffness	745
<i>C.M. Stanescu, K. Branidou, A. Dan, I. Daha, C. Baicus, V. Manoliu, C. Adam, A.Gh. Dan</i>	

Estimation of Linear Parametric Distortions and Motions in the Frequency Domain	749
<i>D.S. Alexiadis, G.D. Sergiadis</i>	
Ex Vivo and In Vivo Regulation of Arginase in Response to Wall Shear Stress	753
<i>R.F. da Silva, V.C. Olivon, D. Segers, R. de Crom, R. Krams, N. Stergiopulos</i>	
Process Choreography for Interaction Simulation in Ambient Assisted Living Environments.....	757
<i>C. Fernández-Llatas, J.B. Mocholí, C. Sánchez, P. Sala, J.C. Naranjo</i>	
Measuring Device for Determination of Forearm Force.....	761
<i>P. Hlavoň, J. Krejsa, M. Zezula</i>	
Subclavian Steal Syndrome – A Computer Model Approach	764
<i>C. Manopoulos, S. Tsangaris</i>	
Mullins Effect in Human Aorta Described with Limiting Extensibility Evolution.....	768
<i>L. Horny, E. Gultova, H. Chlup, R. Sedlacek, J. Kronek, J. Vesely, R. Zitny</i>	
A Distribution of Collagen Fiber Orientations in Aortic Histological Section.....	772
<i>L. Horny, J. Kronek, H. Chlup, R. Zitny, M. Hulan</i>	
An Innovative Approach for Right Ventricular Volume Calculation during Right Catheterization	776
<i>P. Toumpaniaris, I. Skalkidis, S. Markatis, D. Koutsouris</i>	
Service Composition to Support Ambient Assisted Living Solutions for the Elderly	780
<i>V. Moutzi, C. Wills, A. Koumpis</i>	
Oscillations in Subthalamic Nucleus Measured by Multi Electrode Arrays	784
<i>J. Stegenga, T. Heida</i>	
Suitable Polymer Pipe to Modelling the Coronary Veins.....	788
<i>Romola Laczko, Tibor Balazs, Eszter Bognar</i>	
Satisfaction Survey of Greek Inpatients with Brain Cancer	792
<i>G.K. Matis, O.I. Chrysou, N. Lyratzopoulos, K. Kontogiannidis, T.A. Birbilis</i>	
End Stage Renal Disease Patients’ Projections Using Markov Chain Monte Carlo Simulation	796
<i>A. Rodina, K. Bliznakova, N. Pallikarakis</i>	
Influence of Bioimplant Surface Electrical Potential on Osteoblast Behavior and Bone Tissue Formation	800
<i>Yu. Dekhtyar, I. Khlusov, N. Polyaka, R. Sammons, F. Tyulkin</i>	
Nano-Sized Drug Carrier for Cancer Therapy: Dose-Toxicity Relationship of PEG-PCL-PEG Polymeric Micelle on ICR Mice.....	804
<i>J.L. Jiang, N.V. Cuong, S.C. Jwo, M.F. Hsieh</i>	
“Internet of Things”, an RFID – IPv6 Scenario in a Healthcare Environment	808
<i>H. Tsirbas, K. Giokas, D. Koutsouris</i>	

Development of Software Tool for Quantitative Gait Assessment in Parkinsonian Patients with and without Mild Cognitive Impairment	812
<i>L. Ippariello, R. Tranfaglia, M. Amboni, L. Lista, M. Sansone</i>	
Tensile Stress Analysis of the Ceramic Head Endoprosthesis with different Micro Shape Deviations of the Contact Areas	815
<i>V. Fuis, M. Koukal</i>	
Modelling of Cancer Dynamics and Comparison of Methods for Survival Time Estimation	819
<i>Tomas Zdrazil, Jiri Holcik</i>	
Implications of Data Quality Problems within Hospital Administrative Databases	823
<i>J.A. Freitas, T. Silva-Costa, B. Marques, A. Costa-Pereira</i>	
Can the EEG Indicate the FiO₂ Flow of a Mechanical Ventilator in ICU Patients with Respiratory Failure?	827
<i>E.G. Peranonti, M.A. Klados, C.L. Papadelis, D.G. Kontotasiou, C. Kourtidou-Papadeli, P.D. Bamidis</i>	
A European Biomedical Engineering Postgraduate Program – From Evaluation to Continuous Improvement	831
<i>V. Griva, N. Pallikarakis</i>	
 Web Based Medical Applications and Telemedicine	
SOAP/WSDL-Based Web Services for Biomedicine: Demonstrating the Technique with the CancerResource	835
<i>T. Meinel, M.S. Mueller, J. Ahmed, R. Yildirim, M. Dunkel, R. Herwig, R. Preissner</i>	
A Web-Based Application for the Evaluation of the Healthcare Management	839
<i>M. Bava, D. Zotti, R. Zangrando, M. Delendi</i>	
A System for Acquiring, Transmitting and Distributed EEG Data Processing.....	843
<i>D. Kastaniotis, G. Maragos, N. Fragoulis, A. Ifantis</i>	
The Umbrella Database on Fever and Neutropenia in Children – Prototype for Internet-Based Medical Data Management	847
<i>Matthias Faix, Daniela Augst, Hans Jürgen Laws, Arne Simon, Fritz. Haverkamp, J. Rentzsch</i>	
A Research Information System (RIS) for Breast Cancer Genetics.....	851
<i>B.L. Leskošek, J. Dimec, K. Geršak, P. Ferk</i>	
WeCare: Wireless Enhanced Healthcare	855
<i>Hande Ozgur Alemdar, Cem Ersoy</i>	
The Functionality Control of Horizontal Agitators for Blood Bags	859
<i>Z. Vasickova, M. Penhaker, M. Darebnikova</i>	
Experimental Hardware Solutions of Biotelemetric System	863
<i>Dalibor Janckulik, Leona Motalova, Karel Musil, Ondrej Krejcar</i>	
Modern Tools for Design and Implementation of Mobile Biomedical System for Home Care Agencies.....	867
<i>Dalibor Janckulik, Leona Motalova, Ondrej Krejcar</i>	

Application of Embedded System for Sightless with Diabetes	871
<i>L. Martinak, M. Penhaker</i>	
TELEMON – An Embedded Wireless Monitoring and Alert System for Homecare	875
<i>C. Rotariu, H. Costin, R. Ciobotariu, F. Adochiei, I. Amariutei, Gladiola Andruseac</i>	
Graphical Development System Design for Creating the FPGA-Based Applications in Biomedicine	879
<i>V. Kasik, M. Stankus</i>	
Low Cost Data Acquisition System for Biomedical Usage	883
<i>M. Stankus, M. Penhaker, M. Cerny</i>	
Embedded Programmable Invasive Blood Pressure Simulator	886
<i>J. Kijonka, M. Penhaker</i>	
 e-Health	
Generating and Transmitting Ambulatory Electronic Medical Prescriptions	890
<i>M. Nyssen, K. Thomeer, R. Buyl</i>	
Estimating Pre-term Birth Using a Hybrid Pattern Classification System	893
<i>M. Frize, N. Yu</i>	
Design and Implementation of a Radio Frequency IDentification (RFID) System for Healthcare Applications	897
<i>A.C. Polycarpou, G. Gregoriou, A. Dimitriou, A. Bletsas, I.N. Sahalos, L. Papaloizou, P. Polycarpou</i>	
Reliability Issues in Regional Health Networks	901
<i>S. Spyrou, P. Bamidis, N. Maglaveras</i>	
Prevention and Management of Risk Conditions of Elderly People through the Home Environment Monitoring	905
<i>L. Pastor-Sanz, M.M. Fernández-Rodríguez, M.F. Cabrera-Umpiérrez, M.T. Arredondo, E. Bekiaris</i>	
Multilevel Access Control in Hospital Information Systems	909
<i>V. Baldas, K. Giokas, D. Koutsouris</i>	
Managing Urinary Incontinence through Hand-Held Real-Time Decision Support Aid	913
<i>Constantinos Koutsojannis, Chrysa Lithari, Eman Alkholy Nabil, Giorgos Bakogiannis, Ioannis Hatzilygeroudis</i>	
Renal Telemedicine and Telehealth – Where Do We Stand?	920
<i>E. Kaldoudi, V. Vargemezis</i>	
A System for Monitoring Children with Suspected Cardiac Arrhythmias – Technical Optimizations and Evaluation	924
<i>E. Kyriacou, C. Pattichis, D. Hoplaros, A. Kounoudes, M. Milis, A. Jossif</i>	
Use of Guidelines and Decision Support Systems within EHR Applications in Family Practice – Croatian Experience	928
<i>D. Kralj, S. Tonković, M. Končar</i>	

A New Concept of the Integrated Care Service for Unstable Diabetic Patients	932
<i>P. Ladyżyński, P. Foltynski, J.M. Wójcicki, K. Migalska-Musiał, M. Molik, J. Krzymień, G. Rosiński, G. Opolski, K. Czajkowski, M. Tracz, W. Karnafel</i>	
SHARE: A Meeting Point for the Promotion of Interoperability and Best Practices in eHealth Sector	935
<i>M. Ortega-Portillo, M.M. Fernandez-Rodriguez, M.F. Cabrera-Umpierrez, M.T. Arredondo, G. Carrozza</i>	
Long Term Evolution (LTE) Technology in e-Health – A Sample Application	939
<i>R. Jagusz, J. Borkowski, K. Penkala</i>	
 BME Education	
EMITEL e-Encyclopaedia of Medical Physics – Project Development and Future	943
<i>S. Tabakov, P. Smith, F. Milano, S.-E. Strand, C. Lewis, M. Stoeva</i>	
BME Education Program Following the Expectations from the Industry, Health Care and Science	945
<i>P. Augustyniak, R. Tadeusiewicz, M. Wasilewska-Radwańska</i>	
Quality Assurance in Biomedical Engineering COOP-Educational Training Program: Planning, Implementation and Analysis	949
<i>A. Alhamwi, Manal A. Farrag, T. Elsarnagawy</i>	
Accreditation of Medical Physics and Medical Engineering Programmes in the UK	953
<i>S. Tabakov, D. Parker, F. Schlindwein, A. Nisbett</i>	
Tools Based eLearning Platform to Support the Development and Repurposing of Educational Material	955
<i>T. Stefanut, M. Marginean, D. Gorgan</i>	
A Feasible Teaching Tool for Physiological Measurement	959
<i>R. Stojanovic, D. Karadaglic, B. Asanin, O. Chizhova</i>	
Repurposing Serious Games in Health Care Education	963
<i>A. Protopsaltis, D. Panzoli, I. Dunwell, S. de Freitas</i>	
Geotagged Repurposed Educational Content through mEducator Social Network Enhances Biomedical Engineering Education	967
<i>S.Th. Konstantinidis, N. Dovrolis, Eleni Kaldoudi, P.D. Bamidis</i>	
MORMED: Towards a Multilingual Social Networking Platform Facilitating Medicine 2.0	971
<i>Eleni Kargioti, Dimitrios Kourtesis, Dimitris Bibikas, Iraklis Paraskakis, Ulrich Boes</i>	
Design and Development of a Pilot on Line Electronic OSCE Station for Use in Medical Education	975
<i>E.L. Dafli, P.D. Bamidis, C. Pappas, N. Dombros</i>	
Review of the Biomedical Engineering Education Programs in Europe within the Framework of TEMPUS IV, CRH-BME Project	979
<i>Z. Bliznakov, N. Pallikarakis</i>	

Virtual Experiments: May VCV Impede Circulation More than PCV in (Virtual) Patients in the Lateral Position?	983
<i>T. Golczewski, M. Darowski</i>	

Clinical Engineering

Human Factors Engineering Applied to Risk Management in the Use of Medical Equipment.....	987
<i>A.P.S. Silva, R.M.A. Almeida, J.A. Ferreira, A. Gibertoni</i>	
Electromagnetic Interferences (EMI) from Active RFId on Critical Care Equipment.....	991
<i>Ernesto Iadanza, Fabrizio Dori, Roberto Miniati, Edvige Corrado</i>	
The Clinical Data Recorder: What Shall Be Monitored?	995
<i>L.N. Nascimento, S.J. Calil</i>	
Clinical Engineering and Patient Safety: A Forty Year Cycle.....	999
<i>M. Frize, S. Weyand, K. Greenwood</i>	
Extracorporeal Membrane Oxygenation in the Treatment of Novel Influenza Virus Infection: A Multicentric Hospital-Based Health Technology Assessment in Lombardy Region	1003
<i>P. Lago, I. Vallone, G. Zarola</i>	
MRI-Induced Heating on Patients with Implantable Cardioverter-Defibrillators and Pacemaker: Role of Lead Structure	1007
<i>E. Mattei, G. Calcagnini, M. Triventi, F. Censi, P. Bartolini</i>	
Adoption and Sophistication of Clinical Information Systems in Greek Public Hospitals: Results from a National Web-Based Survey.....	1011
<i>S. Kitsiou, V. Manthou, M. Vlachopoulou, A. Markos</i>	
Risk Management Process and CE Marking of Software as MD.....	1017
<i>Fabrizio Dori, Ernesto Iadanza, Roberto Miniati, Samuele Mattei</i>	
From Laparoscopic Surgery to 3-D Double Console Robot-Assisted Surgery	1021
<i>P. Lago, C. Lombardi, B. Dell'Anna</i>	
Clinical Engineering and Clinical Dosimetry in Patients with Differentiated Thyroid Cancer Undergoing Thyroid Remnant Ablation with Radioiodine-131	1025
<i>M. Medvedec, D. Dodig</i>	
Author Index	1029
Keyword Index	1035