

## Hospital Information Systems, Medical Records, Healthcare Networks (I)

Thursday, 19<sup>th</sup> November, 11:30-13:30

Room Eminescu (Room A), Astoria Hotel

Chairpersons: *Florin Gorunescu, Mihail Popescu*

1.	<b>Early Illness Detection in Elderly Using Sensor Networks: a Review of the Tigerplace Experience</b> <i>Mihail Popescu, Paper ID: 14</i>
2.	<b>A Brief Look into Dyscalculia and Supportive Tools</b> <i>Filipa Ferraz, José Neves, Paper ID: 7</i>
3.	<b>A Virtual Health Record-Based EHR System</b> <i>Carmelo Militello, Salvatore La Iacona, Luca Dan Serbanati, Fabrizio L. Ricci, Maria Carla Gilardi, Paper ID: 18</i>
4.	<b>Investigating Scopes for Automata Based Designs Targeting Image Security in Health System</b> <i>Arnab Mitra, Paper ID: 49</i>
5.	<b>Emotional Flow Monitoring for Health using FLOWSENSE: an Experimental Study to Test the Impact of Antismoking Campaigns</b> <i>Eduardo Reis, Patrícia Arriaga, Octavian Postolache, Paper ID: 91</i>
6.	<b>Robot-Assisted Cognitive Exercise in Mild Cognitive Impairment Patients: the RAPP Approach</b> <i>Athanassios M. Kintsakis , Sofia E. Reppou, George T. Karagiannis, Pericles A. Mitkas, Paper ID: 108</i>
7.	<b>Integrating Legacy Medical Applications in a Standardized Electronic Health Record Platform</b> <i>David Robert Posircaru, Luca Dan Serbanati, Paper ID: 156</i>

**Poster Session** – Friday, 20<sup>th</sup> November, 8:00-9:30

Room Eminescu (Room A), Astoria Hotel

8.	<b>A Secure Authorization System in PHR based on CP-ABE</b> <i>Ho Hui Chung, Peter Shaojui Wang, Te-Wei Ho, Hsu-Chun Hsiao, Feipei Lai, Paper ID: 71</i>
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9.	<b>Executable Choreographies for Medical Systems Integration and Data Leaks Prevention</b> <i>Sinica Alboaiie, Lucian Nita, Cipriana Stefanescu, Paper ID: 95</i>
10.	<b>Medical Software User Interfaces, Stroke MD application design</b> <i>Elena Zamsa, Paper ID: 158</i>

## Medical Devices, Measurements, Instrumentation, Signal Processing (I)

Thursday, 19<sup>th</sup> November, 11:30-13:30

Room Creanga (Room B), Astoria Hotel

Chairpersons: *Enrico Caiani, Cristian Rotariu*

1.	<b>Smart Wristbands as Inexpensive and Reliable Non-dedicated Solution for Self-Managing Type 2 Diabetes</b> <i>Adina Militaru, Mirela Frandes, Diana Lungeanu, Paper ID: 44</i>
2.	<b>An Alternative Tool for ECG Analysis in WSN ?</b> <i>Marius–Corneliu Roșu, Yassin Kassab Hamed, Paper ID: 52</i>
3.	<b>Computer Perimeter for Screening of Field of Visions and Standardization of this Method</b> <i>Irina A. Gotsiridze, Giorgi T. Gigilashvili, Zviad T.Gurtskaia, Nikoloz S. Invia, Paper ID: 55</i>
4.	<b>Fuzzy Logic Algorithm for Use in Controlled Hypothermia</b> <i>Victor Cojocaru, Daniel Vrabii, Paper ID: 58</i>
5.	<b>Dynamical Behavior of Bose-Condensed Dipole-Active Phonons and Internal Fröhlich Photons in Biological Media</b> <i>N.Ciobanu, S. Rusu, V. Z.Tronciu, Paper ID: 122</i>
6.	<b>Reliability Calculus for an Experimental Device Performing Quantitative Analysis of Alcohol Vapors from Exhaled Air</b> <i>Dan Iudean, Radu Munteanu jr., Florentina-Ancuta Cadar, Petru-Marius Maier, Alexandru Bogdan Amza, Paper ID: 142</i>
7.	<b>Controlling a Hand Orthosis by Means of P300-Based Brain Computer Interface</b> <i>Andrei Stan, Danut Constantin Irimia, Nicolae Alexandru Botezatu, Robert Gabriel Lupu, Paper ID: 143</i>

Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30

Room Eminescu (Room A), Astoria Hotel

8.	<b>Fetal Heart Rate Detection and Monitoring From Noninvasive Abdominal ECG Recordings</b> <i>Viorel Ionescu, Mihaela Hnatiuc, Paper ID: 11</i>
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9.	<p><b>X-Rays Transparent Resuscitator System for Percutaneous Transluminal Coronary Angioplasty</b></p> <p><i>A.C. Tavilla, D. Nicolis, D. Sürder, T. Moccetti and I. Stefanini, Paper ID: 17</i></p>
10.	<p><b>Effective Light Absorption Spectra of Endogenic Porphyrins in Soft Biotissue</b></p> <p><i>Sontea V.P., Abramovich N.D, Barun V.V, Dick S.K, Seryakov A., Paper ID: 19</i></p>
11.	<p><b>Sparse Representation for Fetal QRS Detection in Abdominal ECG Recordings</b></p> <p><i>Giulia Da Poian, Riccardo Bernardini, Roberto Rinaldo, Paper ID: 26</i></p>
12.	<p><b>Blood Extractor - Medical Device for Standardized and Optimized Cord Blood Extraction</b></p> <p><i>R. Robortella, A.C. Tavilla, S.S. Malorgio, R. Ponti, L. Diviani, W. Amaro, E. Folador, V. Albertini, D. Disarò, T. Gyr and I. Stefanini, Paper ID: 41</i></p>
13.	<p><b>Optimal Design of Mushroom-like EBG Structures for Antenna Mutual Coupling Reduction in 2.4 GHz ISM Band</b></p> <p><i>Viorel Ionescu, Mihaela Hnatiuc, Adrian Topală, Paper ID: 45</i></p>

## Modelling and Simulation

Thursday, 19<sup>th</sup> November, 11:30-13:30

White Hall (Room C), Traian Hotel

Chairpersons: *Alexandru Morega, Dragoş Arotăriţei*

1.	<b>Numerical Simulation Comparison between Monolayer and Multilayer Flow Modulator in a Cerebral Saccular Aneurysm</b> <i>A.Sisto, A.L.Restante, B.Ait Brik, L.Preziosi, Paper ID: 40</i>
2.	<b>Developing Realistic 3D Numerical Conductivity and Permittivity Phantom of the Human Forearm from 10 Hz to 0.1 THz</b> <i>Esuabom Dijemeni, Helena Lund-Palau, Cherry Nzekwu, Paper ID: 97</i>
3.	<b>Localization and not Extent of Fibrofatty Infiltration is the Primary Factor Determining Conduction Disturbance in a Computational Model of Arrhythmogenic Cardiomyopathy</b> <i>Siri Kallhovd, Sjur U. Gjerald, Samuel T. Wall, Jørg Saberniak, Kristina Haugaa, Mary M. Maleckar, Paper ID: 170</i>
4.	<b>Improved GROMACS Algorithms using the MPI Parallelization</b> <i>Nicolae Goga, Iuliana Marin, Andrei Vasilăţeanu, Ionel-Bujorel Păvăloiu, Kamoru Oluwatoyin Kadiri, Oludele Awodele, Paper ID: 197</i>
5.	<b>Numerical Simulation of Transdermal Transport Through Iontophoresis</b> <i>Diana M. Ciuculete and Alexandru M. Morega, Paper ID: 270</i>
6.	<b>On the Thermography Mapping of Anatomic Media with Capillaries and Larger Vessels Blood Flow</b> <i>Alexandru M. Morega, Alina M. Săndoiu, Mihaela Morega, Paper ID: 271</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**

Room Eminescu (Room A), Astoria Hotel

7.	<b>Modeling Cardiovascular Hemodynamics in a Model With Nonlinear Parameters</b> <i>Vasile Manoliu, Paper ID: 161</i>
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## Decision Support Systems, Artificial Intelligence, Bioinformatics (I)

Thursday, 19<sup>th</sup> November, 11:30-13:30

Room Caragiale (Room D), Traian Hotel

Chairpersons: *Florin Gorunescu, Svetlana Cojocaru*

1.	<b>Intelligent Decision Systems in Medicine - a Short Survey on Medical Diagnosis and Patient Management</b> <i>Florin Gorunescu, Paper ID: 38</i>
2.	<b>A Benchmark Study Regarding Extreme Learning Machine, Modified Versions of Naïve Bayes Classifier and Fast Support Vector Classifier</b> <i>Marinel Enache, Radu Dogaru, Paper ID: 39</i>
3.	<b>Type-D Fuzzy CAs for Medical and Social Sciences</b> <i>Horia-Nicolai Teodorescu, Paper ID: 46</i>
4.	<b>Patient Safety &amp; Clinical Decision Support Systems (CDSS): A Case Study in Turkey</b> <i>Gonca Gökçe Menekşe, Nergiz Ercil Cagiltay, Gul Tokdemir, Paper ID: 66</i>
5.	<b>An Optimized Classification Method for Human Behavioral Patterns Recognition</b> <i>Sorin Soviany, Sorin Puşcoci, Paper ID: 73</i>
6.	<b>Study on Determining the Myers-Briggs Personality Type Based on Individual's Handwriting</b> <i>Mihai Gavrilescu, Paper ID: 87</i>
7.	<b>Study on Determining the Big-Five Personality Traits of an Individual Based on Facial Expressions</b> <i>Mihai Gavrilescu, Paper ID: 88</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**

Room Eminescu (Room A), Astoria Hotel

8.	<b>Artificial Neural Networks: a Solution for Increasing the Accuracy of Regional Traceability Assessments</b> <i>Mirela Praisler, Simona Constantin Ghinita, Atanasia Stoica Mandru, Paper ID: 42</i>
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9.	<p><b>Simultaneous Regional Traceability Assessments Based on Artificial Neural Networks</b></p> <p><i>Mirela Praisler, Simona Constantin Ghinita, Atanasia Stoica Mandru, Luminita Dumitriu, Paper ID: 43</i></p>
10.	<p><b>Benefits of Using Artificial Intelligence in Medical Predictions</b></p> <p><i>Adriana Albu, Loredana Stanciu, Paper ID: 93</i></p>
11.	<p><b>Multimodal Biometric Authentication based on Voice, Face and Iris</b></p> <p><i>Tudor Barbu, Adrian Ciobanu, Mihaela Luca, Paper ID: 126</i></p>
12.	<p><b>Comparison of Result Differences in Multiple Implementations of a Stochastic Motif Finding Algorithm</b></p> <p><i>Mihai Isaroiu, Luca Dan Serbanati, Paper ID: 163</i></p>

## **e/m/p-Health, Telemedicine, Wearable systems**

*Thursday, 19<sup>th</sup> November, 15:00-17:30*

*Room Eminescu (Room A), Astoria Hotel*

**Chairpersons: *Octavian Postolache, Sorin Puşcoci***

1.	<b>Characteristics of 5-Year Surveillance System with Synchronous Telehealthcare in Taiwan</b> <i>Te-Wei Ho, Feipei Lai, Jiun-Yu Yu, Yi-Lwun Ho, Rung-Ji Shang, Paper ID: 16</i>
2.	<b>Wearable System for Stress Monitoring of Firefighters in Special Missions</b> <i>Virginia Sandulescu, Radu Dobrescu, Paper ID: 64</i>
3.	<b>A Home Remote Mobile Monitoring System for Long-term Oxygen Therapy for Chronic Obstructive Pulmonary Disease Management</b> <i>Esuabom Dijemeni, Helena Lund-Palau, Tomasz Mloduchowski, Shun Liang, Cherry Nzekwu, Paper ID: 96</i>
4.	<b>Generalized Binary Tent-Maps for Built-in Self- Test for Wearable Medical Devices</b> <i>Horia-Nicolai L. Teodorescu, Paper ID: 111</i>
5.	<b>Environment Crowd-Sensing for Asthma Management</b> <i>Andrei Vasilateanu, Ioan Cosmin Radu, Andreea Buga, Paper ID: 117</i>
6.	<b>Personal Health System: A Tool to Support the Patient Empowerment</b> <i>Salvatore La Iacona, Carmelo Militello, Luca D. Serbanati, Marco Antonio Mastratisi, Fabrizio L. Ricci, Maria Carla Gilardi, Paper ID: 123</i>
7.	<b>Real-Time Hand Hygiene Monitoring System for HAI Prevention</b> <i>Zaid Ali Shhedi, Alin Moldoveanu, Florica Moldoveanu, Cristian Taslitchi, Paper ID: 228</i>
8.	<b>Low-Cost Wireless System for Patient Monitoring</b> <i>Teodor Sumalan, Eugen Lupu, Radu Arsint, Emil Onaca, Paper ID: 302</i>



**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**  
*Room Eminescu (Room A), Astoria Hotel*

9.	<b>Portable Telemedicine Workstation Full Prototype for Technological Transfer in Critical Interventions Services</b> <i>Vlad Văleanu, Vladimir Vasiliu, Cristian Vizitiu, Mihaela Marin, Alexandru Nistorescu, Adrian Dinculescu, Andreea Vizitiu, Tudor Ion, Paper ID: 132</i>
10.	<b>Telemonitoring System for Home Rehabilitation of Patients with COPD</b> <i>Otilia Kocsis, Maroula Vasilopoulou, Anastasios Tsopanoglou, Andriana Papaioannou, Ioannis Vogiatzis, Paper ID: 192</i>
11.	<b>Medical Professional End-Device Applications on Android for Interacting with Neuromotor Disabled Patients</b> <i>Robert Gabriel Lupu, Radu Gabriel Bozomitu, Lucian Nita, Andrei Romila, Alexandru Pasarica, Dragos Arotaritei, Cristian Rotariu, Paper ID: 300</i>
12.	<b>Wireless ECG Acquisition Device for Remote Monitoring of Heart Rate and Arrhythmia Detection</b> <i>Ciprian Cristea, Alexandru Pasarica, Gladiola Gladiola Andruseac, Bogdan Dionisie and Cristian Rotariu, Paper ID: 307</i>

## Medical Devices, Measurements, Instrumentation, Signal Processing (II)

Thursday, 19<sup>th</sup> November, 15:00-17:30

Room Creanga (Room B), Astoria Hotel

Chairpersons: **Radu Ciorap, Fabrizio Clemente**

1.	<b>Design of a Smart EIS Measurement System</b> <i>F. Clemente, M. Romano, P. Bifulco, G. Faiella, M. Molinara<sup>4</sup>, M. Cesarelli, Paper ID: 101</i>
2.	<b>Mobile App for Stress Monitoring using Voice Features</b> <i>Virginia Sandulescu, Sally Andrews, David Ellis, Radu Dobrescu, Oscar Martinez Mozos<sup>4</sup>, Paper ID: 166</i>
3.	<b>Self Collision Detection System for R3 Robot</b> <i>Yakup Özden, Hatice Köse, Paper ID: 194</i>
4.	<b>Fetal Monitoring: Identifying the Relevant Biosignals Interdependencies</b> <i>Bogdan Hurezeanu, Irina Nicolae, Dragos Taralungă, Rodica Strungaru, Werner Wolf, Ilinica Gussi, Mihaela Ungureanu, Paper ID: 199</i>
5.	<b>Imaging in Nuclear Medicine: Monitoring of Skin Doses of Workers</b> <i>Jozef Sabol, Jana Hudzietzová, Marko Fülöp, Paper ID: 211</i>
6.	<b>Study of Cellular Response Induced by Frequency Change of Low Intensity Ultrasound</b> <i>Ivone Mariantonietta, Carmine Pappalettere, Katsuro Tachibana, Paper ID: 218</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**

Room Eminescu (Room A), Astoria Hotel

7.	<b>Digital Chest Expansion Measurement &amp; its Biomedical Application</b> <i>Richeek Dey, Urjit Thakur, Linsun Sunny, Lawrence D'Almeida, Kalyana Chakravarty, Paper ID: 51</i>
8.	<b>Permanent Magnet Synchronous Machines for Small Energy-Efficient Applications</b> <i>Radu-Cătălin Sיעoban, Anda Maria Iobăgel, Radu Marțiș, Anca Iulia Nicu, Paper ID: 84</i>

9.	<p><b>Multifunctional Portable Equipment for Medical and Biometric Applications</b></p> <p><i>Loredana Stanciu, Alina Mucioniu, Paper ID: 94</i></p>
10.	<p><b>A Retrospective Study of the Dosimetry – Radioprotection Relationship in a Nuclear Medicine Diagnosis Laboratory</b></p> <p><i>Vlad Ghizdovăt, Micaiela Ghinet, Stefan Ghinet, Irena Grierosu, Cipriana Ștefănescu, Paper ID: 119</i></p>
11.	<p><b>Signals Evaluation of a Chaotic Generator-based Sensor for Environment Conductometric Measurements</b></p> <p><i>Victor Cojocaru, Paper ID: 141</i></p>
12.	<p><b>Tremor Analysis in Neurological Disorders using Intelligent Clothes</b></p> <p><i>Marius Hăgan, Aurora Constantinescu, Oana Geman, Paper ID: 160</i></p>
13.	<p><b>Graphical Interface for Analyze of Temperature of Skin at Skin-Liner Interface</b></p> <p><i>Dragos Arotaritei, Marius Turnea, Robert Filep, Mihai Ilea, Mariana Rotariu, Andrei Gheorghita, Paper ID: 162</i></p>
14.	<p><b>Connections between Brain Activity and Motion, Depending on the Feedback Informational System</b></p> <p><i>Pierre Joseph de Hillerin, Calin Marin, Irina de Hillerin, Mihaela Marin, Cristina Ciurea, Andreea Vizitiu, Vlad Valeanu, Paper ID: 175</i></p>

## Workshop: Modelling and simulation in the respiratory care

Thursday, 19<sup>th</sup> November, 15:00-17:30

White Hall (Room C), Traian Hotel

Chairpersons: **Karel Roubik, Martin Rozanek, Călin Corciovă**

1.	<b>A keynote presentation of prof. Karel Roubik, with a title to be announced.</b>
2.	<b>Metabolic Model of the Human Respiratory System</b> <i>Petr Kudrna, Jakub Johánek, Martin Rožánek, Karel Roubík , Paper ID: 72</i>
3.	<b>Identification of the Model of the Respiratory System in High-frequency Oscillatory Ventilation</b> <i>Martin Rožánek, Petr Kudrna, Zuzana Rožánková, Karel Roubík, Paper ID: 182</i>
4.	<b>The Effect of Electrode Belt Size Selection upon Evaluation of the Distribution of Ventilation Using Electrical Impedance Tomography</b> <i>Kristyna Buzkova, Karel Roubik, Paper ID: 206</i>
5.	<b>The Effect of Dynamic Hypoinflation during High Frequency Oscillatory Ventilation in an in Vitro Model of the Respiratory System</b> <i>Vaclav Ort, Karel Roubik, Paper ID: 235</i>

**Poster Session** – Friday, 20<sup>th</sup> November, 8:00-9:30

Room Eminescu (Room A), Astoria Hotel

6.	<b>Demonstration of Assisted Mechanical Ventilation Using Human Patient Simulator</b> <i>Gabriela Duhárová, Martin Rožánek, Paper ID: 208</i>
7.	<b>Effect of Mechanical Properties of the Respiratory System upon the Ventilatory Parameters Demonstrated on the Human Patient Simulator</b> <i>Lucie Roškotová, Martin Rožánek, Paper ID: 221</i>

## Hospital Information Systems, Medical Records, Healthcare Networks (II)

Thursday, 19<sup>th</sup> November, 15:00-17:30

Room Caragiale (Room D), Traian Hotel

Chairpersons: *Gabriel Dimitriu, Lucian Boiculese*

1.	<b>Time Series Analysis in Predicting the Oro-maxillofacial Traumas</b> <i>Cristina Gena Dascalu, Georgeta Zegan, Eduard Radu Cernei, Radu Bogdan Mavru, Paper ID: 104</i>
2.	<b>Cyber-Physical Systems in Healthcare Networks</b> <i>Delia Ioana Dogaru, Ioan Dumitrache, Paper ID: 121</i>
3.	<b>Considerations on a New Approach of the Confidence Interval for Population Mean</b> <i>Vasile Lucian Boiculese, Gabriel Dimitriu, Paper ID: 129</i>
4.	<b>Statistical Analysis of Some Parameters Describing Human Locomotion</b> <i>Ramona Luca, Paper ID: 133</i>
5.	<b>Publishing Romanian Public Health Data as Linked Open Data</b> <i>Octavian Rinciog, Vlad Posea, Paper ID: 137</i>
6.	<b>Go-Smart: Web-based Computational Modeling of Minimally Invasive Cancer Treatments</b> <i>Phil Weir, Dominic Reuter, Roland Ellerweg, Tuomas Alhonnoro, Mika Pollari, Philip Voglreiter, Panchatcharam Mariappan, Ronan Flanagan, Chang Sub Park, Stephen Payne, Elmar Staerk, Peter Voigt, Michael Moche, Marina Kolesnik, Paper ID: 139</i>
7.	<b>Design of e-Healthcare Management System Based on Cloud and Service Oriented Architecture</b> <i>Rasha Talal Hameed, Omar A. Mohamad, Omar T. Hamid, Nicolae Țăpuș, Paper ID: 148</i>
8.	<b>Sensitivity Study for a SEIT Epidemic Model</b> <i>Gabriel Dimitriu, Vasile Lucian Boiculese, Paper ID: 253</i>

**Poster Session** – Friday, 20<sup>th</sup> November, 8:00-9:30

Room Eminescu (Room A), Astoria Hotel

9.	<b>Assessing the Performance of Health Units Using a Mix of Efficiency Indicators</b> <i>Fabrizio Pecoraro, Daniela Luzi, Mario Cesarelli, Fabrizio Clemente, Paper ID: 184</i>
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10.	<p><b>Mini-review: Human Microbiome Project – Recent Trends and Future Challenges</b>  <i>Maria Magdalena Lungu, Anca Bosancu, Oana Geman, Paper ID: 190</i></p>
11.	<p><b>Trends in Healthy Status among Students in the Department of Health and Human Development, Suceava, Romania, 2013-2015</b>  <i>Anca Bosancu, Maria Magdalena Lungu, Oana Geman, Paper ID: 193</i></p>
12.	<p><b>Bluetooth Devices for the Optimization of Patients' Workflow in a Radiation Oncology Department</b>  <i>Mario Magliulo, Laura Cella and Roberto Pacelli, Paper ID: 274</i></p>

## Medical Devices, Measurements, Instrumentation, Signal Processing (III)

Friday, 20<sup>th</sup> November, 11:30-13:30

Room Eminescu (Room A), Astoria Hotel

Chairpersons: *Alexandru Morega, Călin Corciovă*

1.	<b>Channels Selection for Motor Imagery Paradigm - an Itakura Distance-Based Method</b> <i>Oana-Diana Eva, Anca Mihaela Lazar, Paper ID: 222</i>
2.	<b>Supervised Learning Used in Automatic EEG Graphoelements Classification</b> <i>Hana Schaabova, Vladimir Krajca, Vaclava Sedlmajerova, Olena Bukhtaieva, Svojmil Petranek, Paper ID: 223</i>
3.	<b>Spectral Perturbations Reflect the Depth of Cognitive Processing for Brain-Computer Interface Systems</b> <i>Irina-Emilia Nicolae, Georgeta Mihaela Ungureanu, Rodica Strungaru, Laura Acqualagna, Benjamin Blankertz, Paper ID: 227</i>
4.	<b>Utilizing Convolution Neural Networks for the Acoustic Detection of Inhaler Actuations</b> <i>Dimitrios Kikidis, Konstantinos Votis, Dimitrios Tzovaras, Paper ID: 232</i>
5.	<b>Influence of Motion Speed in Static Magnetic Fields of MRI Scanners on the Density of Induced Electric Currents in Bodies of MRI Operators</b> <i>S. I. Farrag, E A Kamel, Paper ID: 247</i>
6.	<b>A New Approach of Shielding Technique Due to a Leakage of Radiation Exposure Outside a 10 MEV Linac Room an a Facility Designed for 6 MEV</b> <i>S. I. Farrag, Paper ID: 259</i>
7.	<b>ECG Generation Methods for Testing and Maintenance of Cardiac Monitors</b> <i>Radu-Ion Ciucu, George-Călin Serîţan, Daniel-Andrei Dragomir, Costin Cepișcă, Felix-Constantin Adochiei, Paper ID: 272</i>
8.	<b>A Semi-Autonomous Small Scale Paramotor Used for Medical Emergency Situations</b> <i>Răzvan-Viorel Mihai, Cristian Vidan, Radu-Călin Pahonie, Pericle Matei, Adrian-Mihail Stoica, Ioana Adochiei, Paper ID: 291</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**  
*Room Eminescu (Room A), Astoria Hotel*

9.	<b>Deep Brain Stimulation Efficiency and Parkinson's disease Stage Prediction using Markov Models</b> <i>Oana Geman, Iuliana Chiuchisan, Paper ID: 187</i>
10.	<b>Health Care Self-Monitoring System for Patients with Visual Impairment using a Network of Sensors</b> <i>Oana Geman, Iuliana Chiuchisan, Paper ID: 188</i>
11.	<b>Scenario of Short Anesthesia Administration Prepared for Human Patient Simulator</b> <i>Tereza Antořová, Martin Rořánek, Paper ID: 200</i>
12.	<b>On The Accuracy of Complex Permittivity Model of Glucose/Water Solutions for Non-invasive Microwave Blood Glucose Sensing</b> <i>Volkan Turgul, Izzet Kale, Paper ID: 203</i>
13.	<b>Human Motion Tracking &amp; Evaluation using Kinect V2 Sensor</b> <i>Hesham Alabbasi, Alex Grafinaru, Florica Moldoveanu, Alin Moldoveanu, Paper ID: 219</i>
14.	<b>Feasibility Study for Beat-to-beat Heart Rate detection by Smartphone's Accelerometers</b> <i>Federica Landreani, Alba Martin-Yebra, Claudia Casellato, Esteban Pavan, Carlo Frigo, Pierre-François Migeotte, Enrico G Caiani, Paper ID: 251</i>
15.	<b>The Use of Conductive Wires for Smart and Protective Textiles</b> <i>Muhammet Uzun, Erhan Sancak, Ismail Usta, Paper ID: 252</i>



## Workshop: Assistive Technologies for People with Disabilities

Friday, 20<sup>th</sup> November, 11:30-13:30

Room Creanga (B), Astoria Hotel

Chairpersons: **Radu Bozomitu, Cristian Rotariu**

1.	<b>Physical Rehabilitation Assessment based on Smart Training Equipment and Mobile APPs</b> <i>Octavian Postolache, Paper ID: 290</i>
2.	<b>Ultrasonic Electronic System for Blind People Navigation</b> <i>Denis Tudor, Lidia Dobrescu, Dragoş Dobrescu, Paper ID: 31</i>
3.	<b>An Outdoor Cognition System Integrated on a Regular Smartphone Device</b> <i>Bogdan Mocanu, Ruxandra Tapu, Titus Zaharia, Paper ID: 128</i>
4.	<b>Implementation of Eye-tracking System Based on Circular Hough Transform Algorithm</b> <i>Radu Gabriel Bozomitu, Alexandru Păsărică, Vlad Cehan, Robert Gabriel Lupu, Cristian Rotariu, Eugen Coca, Paper ID: 138</i>
5.	<b>From Neuromotor Command to Feedback: a Survey of Techniques for Rehabilitation through Altered Perception</b> <i>Oana Ferche, Alin Moldoveanu, Delia Cinteza, Corneliu Toader, Florica Moldoveanu, Alexandra Voinea, Cristian Taslitchi, Paper ID: 207</i>
6.	<b>Motion Detection and Rendering for Upper Limb Post-Stroke Rehabilitation</b> <i>Alexandra Voinea, Alin Moldoveanu, Florica Moldoveanu, Oana Ferche, Paper ID: 225</i>
7.	<b>Voice-Related Quality of Life Results in Laryngectomies With Today's Speech Options and Expectations From the Next Generation of Vocal Assistive Technologies</b> <i>Cristina Tiple, Silviu Matu, Florina Veronica Dinescu, Rodica Muresan, Radu Soflau, Tudor Drugan, Mircea Giurgiu, Adriana Stan, Daniel David and Magdalena Chirila, Paper ID: 226</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**  
*Room Eminescu (Room A), Astoria Hotel*

8.	<b>Monitoring Rehabilitation Exercises using MS Kinect</b> <i>Silvia Anton, Florin Daniel Anton, Paper ID: 217</i>
9.	<b>Assistive Communication System for Patients with Severe Neuromotor Disabilities</b> <i>Lucian Nita, Radu Gabriel Bozomitu, Robert Gabriel Lupu, Alexandru Pasarica, Cristian Rotariu, Paper ID: 276</i>
10.	<b>Electrical Stimulation of Sciatic Nerve after Decompression. Does the Time of Intervention Counts?</b> <i>Dragos Petrica Sardaru, Dan Zaharia-Kezdi, Gabriela Gladiola Andruseac, Liviu Pendefunda, Paper ID: 308</i>

## **Biomaterials and Biotechnologies (I)**

*Friday, 20<sup>th</sup> November, 11:30-13:30*

*White Hall (Room C), Traian Hotel*

**Chairpersons: *Geta David, Anca Galaction***

1.	<b>Collagen-Based Hybrid 3-D Matrices</b> <i>Geta David, Rodica Diaconescu, Paper ID: 8</i>
2.	<b>The Effect of Anodic Oxidation Treatment of Ti-10Zr Alloy on Tribocorrosion Behavior in a Simulated Physiological Solution</b> <i>Lidia Benea, Eliza Dănilă, Valentin Marian Dumitrașcu, Pierre Ponthiaux, Paper ID: 60</i>
3.	<b>Tribocorrosion Performance of Co/UHMWPE Composite Biocoatings Compared to Pure Co Coatings in a Simulated Physiological Solution</b> <i>Eliza Dănilă, Lidia Benea, Pierre Ponthiaux, Paper ID: 61</i>
4.	<b>High Efficiency Recombinant Factor VIII Production and Secretion in CHO Cells</b> <i>Abdulmecit Gökçe, Kaya Molo, Elif Gelmez, Gürsel Turgut, Gülay Bulut, Paper ID: 233</i>
5.	<b>DFT Study of Binding and Electron Transfer from Penicillin to a TiO<sub>2</sub> Nanocluster: Applications to Photocatalytic Degradation</b> <i>Corneliu I. Oprea, I Lucian C. Petcu, Mihai A. Gîrțu, Paper ID: 237</i>
6.	<b>Surface Wettability and Morphology Implications on Semi-Alicyclic Polyimide Hemocompatibility</b> <i>Iuliana Stoica, Andreea Irina Barzic, Camelia Hulubei, Paper ID: 258</i>
7.	<b>The Hypothesis Regarding the Regenerative Action of Silver Nanoparticles</b> <i>Bogdan Alexandru Hagi, Narcisa Vranceanu, Paraschiva Postolache, Paper ID: 284</i>
8.	<b>Bio-Inspired Calcium Phosphates-Biopolymer Scaffolds with Inclusions of SPIONs for Bone Tissue Regeneration</b> <i>Florina Daniela Ivan, Vera Balan, Maria Butnaru, Ionel Marcel Popa, Liliana Verestiuc, Paper ID: 286</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**

*Room Eminescu (Room A), Astoria Hotel*

9.	<b>A Comparative Study of Functionalized Nano-Hydroxyapatite</b> <i>Geta David, Liviu Sacarescu, Daniel Timpu, Tudor Vasiliu, Paper ID: 9</i>
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10.	<p><b>Modeling Thermodynamic Properties of Glycerol Involved in Cosmetic and Pharmaceutical Industries: Boiling Point, Heat Capacity and Thermal Conductivity</b></p> <p><i>Simion Andrei Ionut, Grigoras Cristina-Gabriela, Gavrilă Lucian, Paper ID: 12</i></p>
11.	<p><b>Electrospun Fibers Containing Cationic Quaternary Ammonium Derivatives with Antibacterial Activity: Electrospun quaternized polysulfone fibers with antimicrobial activity</b></p> <p><i>Anca Filimon, Ecaterina Avram, Niculae Olaru, Florica Doroftei, Simona Dunca, Paper ID: 48</i></p>
12.	<p><b>Self-linked Polymer Gels [Based on Hyaluronic Acid and poly (itaconic anhydride-co-3, 9-divinyl-2, 4, 8, 10-tetraoxaspiro [5.5] undecane)] as Potential Drug Delivery Networks</b></p> <p><i>Alina Diaconu, Loredana E. Nita, Aurica P. Chiriac, Liliana Mititelu Tartau, Florica Doroftei, Cornelia Vasile, Mariana Pinteala, Paper ID: 54</i></p>
13.	<p><b>On the Coalescence of Colliding Jets</b></p> <p><i>Ioana Laura Omocea, Claudiu Patrascu, Mihaela Turcanu, Corneliu Balan. Paper ID: 75</i></p>
14.	<p><b>Chitosan an Eco-Friendly Biomaterial from Marine Invertebrates</b></p> <p><i>Manuela Rossemary Apetroaei, Ana-Maria Manea, Grațîela Teodora Tihan, Roxana Gabriela Zgârian, Verginica Schroder, Gabriela Lîlios, Marius Gabriel Apetroaei, Ileana Rău, Paper ID: 90</i></p>
15.	<p><b>Antioxidant Activity Evaluation of Some Novel 2-Hydroxy-Benzamides Derivatives</b></p> <p><i>Ioana M.C. Ienașcu, Mariana N. Ștefănuț, Cristian Tănasie, Iuliana M. Popescu, Adina Căta, Paper ID: 98</i></p>
16.	<p><b>Different Methods for Obtaining of Some Bio-Composite Materials with Dental Use</b></p> <p><i>M.N. Ștefănuț, A. Căta, I.M.C. Ienașcu, C. Tănasie, D. Ursu, M.C. Dobrescu, Paper ID: 99</i></p>
17.	<p><b>Development of Novel Hydrogels Based on Citraconyl-chitosan and Poly(acrylic acid) as Potential Wound Dressing Materials</b></p> <p><i>Alina Gabriela Rusu, Ioana Alexandra Tanasa, Marcel Ionel Popa, Maria Butnaru, Liliana Verestiuc, Paper ID: 287</i></p>

## **Hospital Information Systems, Medical Records, Healthcare Networks (III)**

*Friday, 20<sup>th</sup> November, 11:30-13:30*

*Room Caragiale (Room D), Traian Hotel*

Chairpersons: *Mihail Popescu, Gabriel Dimitriu*

1.	<b>Social Networking and the Use of Health-Related Information</b> <i>Ariana A. Cordoș, Sorana D. Bolboacă, Tudor C. Drugan, Cristina Drugan, Paper ID: 180</i>
2.	<b>E-Health Appointment Solution, a Web-Based Approach</b> <i>Cristian Cola, Honoriu Valean, Paper ID: 185</i>
3.	<b>A Proposal for Electronic Patient Clinical Observation Sheet</b> <i>Florin Daniel Anton, Silvia Anton, Paper ID: 198</i>
4.	<b>RoDisAir: Romanian Diseases and Air Pollution Observations Put Together</b> <i>Cristina Savin, Octavian Rinciog, Vlad Posea, Paper ID: 250</i>

## **Decision Support Systems, Artificial Intelligence, Bioinformatics (II)**

*Friday, 20<sup>th</sup> November, 11:30-13:30*

*Room Caragiale (D), Traian Hotel*

Chairpersons: ***Dragoş Arotăriţei, Lucian Boiculese***

1.	<b>An Integrated Gene Expression Analysis Approach</b> <i>Irina-Oana Petre, Catalin Buiu, Paper ID: 196</i>
2.	<b>Evaluation of Various Classifiers Performance on Biomedical Datasets</b> <i>Miroslav Bursa, Lenka Lhotska, Paper ID: 212</i>
3.	<b>A Study about the Automatic Recognition of the Anxiety Emotional State Using Emo-DB</b> <i>Marius Dan Zbancioc, Silvia Monica Feraru, Paper ID: 264</i>

**Poster Session** – *Friday, 20<sup>th</sup> November, 8:00-9:30*

*Room Eminescu (Room A), Astoria Hotel*

4.	<b>Automated Identification of Objects Based on Normalized Cross-Correlation and Genetic Algorithm</b> <i>Mariana Rusu, Marius-Dan Zbancioc, Paper ID: 210</i>
5.	<b>Real-time Health Status Monitoring System based on a Fuzzy Agent Model</b> <i>Todor Ivascu , Ovidiu Aritoni, Paper ID: 260</i>

## **Biomaterials and Biotechnologies (II)**

*Friday, 20<sup>th</sup> November, 15:00-17:00*

*Room Eminescu (Room A), Astoria Hotel*

Chairpersons: *Liliana Vereștiuc, Marcela Mihai*

1.	<b>BMP- immobilized PCL/PANA Nanofibers for Bone Tissue Engineering</b> <i>Zeliha Guler, A. Sezai Sarac, Paper ID: 205</i>
2.	<b>Chemometric Characterisation of Some Flavonoids Active Against HT-9 Human Cancer Cells</b> <i>Nicoleta Paduraru, Steluta Gosav, Mirela Praisler, Paper ID: 183</i>
3.	<b>The Effect of Surface Roughness on Corrosion Behavior of Ti-6Al-4V Alloy in Saliva Solution</b> <i>Eliza Dănăilă, Lidia Benea, Paper ID: 277</i>
4.	<b>Design and Characterization of Biotinylated Magnetic Nanocapsules for Breast Cancer Applications</b> <i>Vera Balan, Liliana Vereștiuc, Maria Butnaru, Ovidiu Bredetean, Laura Knieling, Anca Munteanu, Paper ID: 279</i>
5.	<b>Waste-Water Management by a Comparative Research of Photocatalytic Performance Belonging to Coupled ZnO/SnO<sub>2</sub> Nanocomposites against Degradation of Textile Dyes</b> <i>Paraschiva Postolache, Danut Dumitru Dumitrascu, Narcisa Vrinceanu, Diana Coman, Paper ID: 289</i>
6.	<b>Micro-Nano-Technologies of Zinc and Copper Oxides for Sensor and Medicine Applications</b> <i>Oleg Lupan, Vasile Postica, Mathias Hoppe, Victor Sontea, Serghei Railean, Rainer Adelung, Paper ID: 306</i>
7.	<b>Physical Characteristics of Nanostructured Zinc Sulfide Composite with Antibacterial Properties</b> <i>A. M. Mieshkov, L. I. Hrebenyk, L. F. Sukhodub, Paper ID: 145</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**  
*Room Eminescu (A), Astoria Hotel*

8.	<p><b>Separation and Purification of Natural Extracts Obtained from Beetroot (Beta Vulgaris)</b></p> <p><i>Marinela Pauliuc, Ion Iosub, Ileana Rau, Paper ID: 136</i></p>
9.	<p><b>Impact of Surface Properties of Blends Based on Quaternized Polysulfones on Modeling and Interpretation the Interactions with Blood Plasma - Quaternized Polysulfones Blends Interactions with Blood Plasma</b></p> <p><i>Adina Maria Dobos, Anca Filimon, Ecaterina Avram, Ghiocel Emil Ioanid, Paper ID: 178</i></p>
10.	<p><b>Environmental Impacts of Polyvinyl Chloride (PVC) Production Process</b></p> <p><i>Elena-Diana Comaniță, Cristina Ghinea, Mihaela Roșca, Isabela Maria Simion, Madalina Petraru, Maria Gavrilescu, Paper ID: 243</i></p>
11.	<p><b>Potential of Biosorption and Bioaccumulation Processes for Heavy Metals Removal in Bioreactors</b></p> <p><i>Mihaela Rosca, Raluca - Maria Hlihor, Petronela Cozma, Elena - Diana Comăniță, Isabela Maria Simion, Maria Gavrilescu, Paper ID: 244</i></p>
12.	<p><b>Evaluation of Pentachlorophenol Leaching Potential in Natural Soils</b></p> <p><i>Camelia Smaranda, Laura Bulgariu, Mihaela Rosca, Remus Turculet, Cristina Ghinea, Maria Gavrilescu, Paper ID: 245</i></p>
13.	<p><b>Efficient Removal of Pb(II) Ions from Accidental Polluted Waters by Adsorption onto Thermal Activated Lignin</b></p> <p><i>Gabriela Nacu, Lăcrămioara Negrilă, Mihaela Rosca, Camelia Smaranda, Laura Bulgariu, Maria Gavrilescu, Paper ID: 246</i></p>
14.	<p><b>Antioxidant Properties Evidenced by Polyphenols Content in Two Romanian Red Grape Cultivars in Iasi Area</b></p> <p><i>Lăcrămioara Oprică, Marius Grigore, Andreea Verdeș, Dorina Creangă, Irina Anca Popescu, Andreea Grigorescu, Diana Costin, Paper ID: 268</i></p>
15.	<p><b>Spectral Characterisation of Some Materials Based on Natural Extracts</b></p> <p><i>Elena Perianu, Marinela Pauliuc, Ileana Rau, Ion Iosub, Paper ID: 275</i></p>
16.	<p><b>Cell Populated Hydrogels Based on Collagen and Chitosan for Soft Tissue Regeneration</b></p> <p><i>Andreea Luca, Oana Elena Rachita, Liliana Verestiuc, Marcel Popa, Maria Butnaru, Paper ID: 280</i></p>



17.	<b>Characterization of Some Biomimetic Supports Based on Biopolymers and Calcium Phosphates Potentially Used for Bone Regeneration</b> <i>Aurora Antoniac, Marius Niculescu, Madalina Albu, Florin Miculescu, Camelia Tecu, Iulian Antoniac, Paper ID: 309</i>
18.	<b>Corrosion Behavior of Some Magnesium Alloys Type Mg-Zn-Ag (ZQ) Potentially Used for Biodegradable Orthopedic Implants</b> <i>Elisa Plopeanu, Ana-Iulia Bitu, Aurora Antoniac, Mihai Branzei, Eugeniu Vasile, Cosmin Cotrut, Izabela Stefan, Iulian Antoniac, Paper ID: 310</i>

## Medical Imaging and Image Processing (I)

Friday, 20<sup>th</sup> November, 15:00-17:00

Room Creanga (Room B), Astoria Hotel

Chairpersons: *Mircea Vaida, Constantin Vertan, Florin Rotaru*

1.	<b>Feature Ensemble for Quantitative Analysis of Emphysema in CT imaging</b> <i>Rodrigo Nava, Jimena Olveres, Jan Kybic, Boris Escalante, and Gabriel Cristóbal, Paper ID: 6</i>
2.	<b>A Comparison of Decolorization Methods Performance for Medical Color Images</b> <i>Constantin Vertan, Georgiana Voicea, Paper ID: 10</i>
3.	<b>Patient-Specific Anatomical Modelling</b> <i>Júlia E. E. de Oliveira, Paul Giessler, Thomas M. Deserno, Paper ID: 20</i>
4.	<b>Vessels Enhancement in X-ray Angiograms</b> <i>Irina Andra Tache, Paper ID: 35</i>
5.	<b>Classification of Vertebral Compression Fractures in Magnetic Resonance Images using Shape Analysis</b> <i>L. Frighetto-Pereira, R. Menezes-Reis, G. A. Metzner, R. M. Rangayyan, M. H. Nogueira-Barbosa, P. M. Azevedo-Marques, Paper ID: 36</i>
6.	<b>Fractal Analysis of Neovascularization due to Diabetic Retinopathy in Retinal Fundus Images</b> <i>Sathvika Mudigonda, Faraz Oloumi, Kalyana M. Katta, and Rangaraj M. Rangayyan, Paper ID: 37</i>
7.	<b>Creating Panoramic Image for Linear Transducer Ultrasound Doppler Images,</b> <i>Yasameen Al Youzbaki, Silviu Stanciu, Sever Paşca, Paper ID: 53</i>
8.	<b>Novel Approach to Face Expression Analysis in Determining Emotional Valence and Intensity with Benefit for Human Space Flight Studies</b> <i>Adrian Dinculescu, Cristian Vizitiu, Alexandru Nistorescu, Mihaela Marin, Andreea Vizitiu, Paper ID: 131</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**  
*Room Eminescu (Room A), Astoria Hotel*

9.	<b>Robust Dermatological Wound Image Segmentation in Clinical Photos</b> <i>Chih Chang, Te-Wei Ho, Jin-Ming Wu, Hsing-Hua Tsai, Charlie Chung-Ping Chen, Feipei Lai, Hao-Chih Tai, Nai-Chen Cheng, Paper ID: 24</i>
10.	<b>Bias Field Inhomogeneity Measurements</b> <i>László Lefkovits, Szidónia Lefkovits, Petre Pop, Mircea-Florin Vaida, Paper ID: 50</i>
11.	<b>Preliminary Work on Zenker Diverticulum Segmentation</b> <i>Diana Ciuc, Alina Sultana, Daniel Cochior, Silviu Constantinoiu, Paper ID: 63</i>
12.	<b>Automatic Evaluation of Hemangiomas for Followup Monitoring</b> <i>Alina Sultana, Serban Oprisescu, Mihai Ciuc, Paper ID: 65</i>
13.	<b>Analysis of Thin Blood Images for Automated Malaria Diagnosis</b> <i>Saumya Kareem Reni, Izzet Kale, Richard Morling, Paper ID: 81</i>

## Decision Support Systems, Artificial Intelligence, Bioinformatics (III)

Friday, 20<sup>th</sup> November, 15:00-17:00

White Hall (Room C), Traian Hotel

Chairpersons: *Simona Vlad, Anca Ignat*

1.	<b>Neural Network Classifier for Glaucoma Diagnosis</b> <i>Simona Vlad, Sorina Demea, Horea Demea, Rodica Holonec, Paper ID: 80</i>
2.	<b>Petri Net Models in Computational Biology</b> <i>Stefan Popa1, Radu Dobrescu, Paper ID: 82</i>
3.	<b>A Prototype for Breast Cancer Detection and Development Probability Expert System – Towards a Supportive Tool</b> <i>Shereen A. Taie, Amira M. Idrees, Paper ID: 106</i>
4.	<b>A Healthy Nutrition Expert System for Children</b> <i>Maryam Hazman, Amira M. Idrees, Paper ID: 120</i>
5.	<b>Gender Recognition with Gabor Filters</b> <i>Anca Ignat, Mihaela Coman, Paper ID: 127</i>
6.	<b>Using the Decision Tree for Emphasizing the Benefits of Associating Antioxidants in the Therapy of the Metabolic Syndrome</b> <i>Silvia Monica Feraru, Marius Dan Zbancioc, Roxana Mihaela Barbu, Cristina Maria Gavrilesu, Paper ID: 174</i>
7.	<b>Experimental Study in Emotion Recognition using Prosodic Features</b> <i>Ioan Păvăloi, Elena Muscă, Paper ID: 176</i>

## Management in Health Care, Teaching, e-Learning

Friday, 20<sup>th</sup> November, 15:00-17:00

Room Caragiale (Room D), Traian Hotel

Chairpersons: *Vladimir Rogalewicz, Loredana Stanciu*

1.	<b>Health Technology Assessment as a Tool For Medical Devices Management in Hospitals</b> <i>Vladimír Rogalewicz, Paper ID: 47</i>
2.	<b>Shoulder Joint Arthroplasty Cost-Effectiveness in the Czech Republic</b> <i>Silvie Jerabkova, Petr Fulin, Jakub Vacek, Hana Holubova, Paper ID: 76</i>
3.	<b>Palliative Care MOOC Project Research Findings and the Development of Standardized Protocols - Multimedia Applications for Medical and Healthcare Education and e-learning</b> <i>Anca Colibaba, Stefan Colibaba, Irina Gheorghiu, Ovidiu Ursa, Cintia Colibaba, Andreea Ionel, Paper ID: 239</i>
4.	<b>AHP – Based Weighting of Criteria for Medical Equipment Selection</b> <i>Corneliu Hajdau, Alexandru-Mihnea Spiridonica, Paper ID: 278</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**

Room Eminescu (Room A), Astoria Hotel

5.	<b>First Generation of Undergraduate Program for Medical Equipment and Systems at the Faculty of Medical Engineering – Overview</b> <i>Alina Machedon, Paper ID: 83</i>
6.	<b>The Cost of Acute Myocardial Infarction Treatment in The Czech Republic – The Case of General University Hospital in Prague</b> <i>Milan Baustein, Miroslav Bartak, Tomas Janota and Vladimir Rogalewicz, Paper ID: 103</i>
7.	<b>The Digital Timelines Course to Maintain the Quality of Life and Help People with Memory Loss - Multimedia applications for medical and healthcare education and e-learning</b> <i>Anca Colibaba, Stefan Colibaba, Irina Gheorghiu, Ovidiu Ursa, Cintia Colibaba, Andreea Ionel, Paper ID: 242</i>

## Medical Devices, Measurements, Instrumentation, Signal Processing (IV)

Friday, 20<sup>th</sup> November, 15:00-17:00

Room Caragiale (Room D), Traian Hotel

Chairpersons: *Vladimir Rogalewicz, Loredana Stanciu*

1.	<b>Unsupervised Detection and Classification of Motor Unit Action Potentials in Intramuscular Electromyography Signals</b> <i>Hooman Sedghamiz, Daniele Santonocito, Paper ID: 27</i>
2.	<b>How to Design and Additive Manufacture Individualized Surgical Guides for Hand Osteotomy</b> <i>Diana Popescu, Dan Laptoiu, Anton Hadar, Catalin Ilie, Cristian Parvu, Paper ID: 92</i>
3.	<b>Control Systems of Rehabilitation Engineering Equipment – A Review</b> <i>Alexandru Ianosi-Andreeva-Dimitrova, Dan Silviu Mândru, Paper ID: 130</i>
4.	<b>Enhanced Three-Dimensional Visualization of EEG Signals</b> <i>Marius Gavrilesco, Florina Ungureanu, Paper ID: 144</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**

Room Eminescu (Room A), Astoria Hotel

5.	<b>Applications of Compressed Sensing: Compression and Encryption</b> <i>Monica Fira, Paper ID: 263</i>
6.	<b>Study of Continuous Wavelet Transform used in ECG Pre-diagnostic</b> <i>Adriana Maria Ciupe, Radu Vasile Ciupa, Alexandrina Ioana Roman, Nicolae Marius Roman, Paper ID: 269</i>
7.	<b>Techniques and Optometric Tools for Visual Training in Strabismus for Preschool Children</b> <i>Daniela Mariana Barbu, Ileana Maria Plesa, Paper ID: 293</i>
8.	<b>Optometric Testing for Binocular Vision in Preschool Children</b> <i>Daniela Mariana Barbu, Andreea Loredana Vitelariu, Paper ID: 294</i>

9.	<p><b>Assistive Inertial 3D Positioning MEMS System</b></p> <p><i>Ioana Edu (Adochiei), Teodor Lucian Grigorie, Felix Adochiei, Petre Negrea, Vidan Cristian, Nicolae Jula, Paper ID: 297</i></p>
10.	<p><b>Experimental Validation of a Low-Cost Integrated INS/GPS Navigator for Assistive Positioning</b></p> <p><i>Teodor Lucian Grigorie, Sandu Dragos George, Petre Negrea, Felix Adochiei, Ioana Edu (Adochiei), Paper ID: 298</i></p>
11.	<p><b>Symbolic to Genetic Tuning of PID Controllers</b></p> <p><i>Cătălin Nicolae Calistru, Daniel Timofte, Paper ID: 304</i></p>

## Biomechanics

Saturday, 21<sup>st</sup> November, 9:00-11:00

Room Eminescu (Room A), Astoria Hotel

Chairpersons: *Raymond Lee, Diana Cotoros, Florin Munteanu*

1.	<b>An Application of the Free Moment for the Diabetic Patients' Classification - A Pilot Study</b> <i>Petcu Daniel, Paper ID: 28</i>
2.	<b>Orthotic Solution Influencing the Rotational Friction in Walking - an Experimental Model</b> <i>Petcu Daniel, Paper ID: 29</i>
3.	<b>Flat Foot Composite Dynamic Clamp as a 24 Hours Correction Device for Children</b> <i>Dimitriu Bogdan, Lungu Elena, Prisecariu Bogdan, Paper ID: 57</i>
4.	<b>The Influence of Fluid Properties on Flow Dynamics in Microchannels</b> <i>Iulia - Rodica Damian, Nicoleta - Octavia Tanase, Catalin Marculescu, Corneliu Balan, Paper ID: 78</i>
5.	<b>Correlative Assessment of Patient's Progress Subjected to a Hip Implant Procedure. Case Study</b> <i>Cotoros Diana, Repanovici Angela, Baritz Mihaela, Stanciu Anca, Paper ID: 134</i>
6.	<b>Establishing a baseline for gait pattern that can be linked to lumbar disk herniation and recurrent lumbar disk herniation</b> <i>Sinziana Anca Moldoveanu, F. Munteanu, Anca Mihaela Lazar, C. Tarasi, Dana Turliuc, Paper ID: 150</i>
7.	<b>Preliminary Qualitative Analysis of Mechanical Impulse Propagation Dynamics in Human Striated Muscle</b> <i>Andra Băltoiu, Alexandru Nistorescu, Pierre de Hillerin, Mirel Vasiliu, Vlad Văleanu, Tudor Ion, Călin Marin, Paper ID: 168</i>

**Poster Session** – Friday, 20<sup>th</sup> November, 8:00-9:30

Room Eminescu (A), Astoria Hotel

8.	<b>The Keyboard Remains the Least Ergonomically Designed Computer Device</b> <i>Octavian Ciobanu, Cristian Gavat, Radu Cozmei, Paper ID: 70</i>
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9.	<b>Human Pilot's Dynamic Response Characteristics</b> <i>Constantin Rotaru, Simona Roateși, Raluca Ioana Edu, Ionică Cîrciu, Paper ID: 102</i>
10.	<b>Evaluation of a Novel Wheelchair Sitting Concept on Spinal-Pelvic Angles</b> <i>Chun-Ting Li, Yen-Ting Tseng, Ren-Yuan Shih, Kuen-Hornng Tsai, Paper ID: 113</i>
11.	<b>Modeling and Simulation of Gait by Anybody Software before and after Hip Arthroplasty</b> <i>Cotoros Diana, Repanovici Angela, Baritz Mihaela, Stanciu Anca, Paper ID: 125</i>
12.	<b>High Heel Shoes Effect Analysis on Comfort and Bipodal Balance by Evaluating Thermal Gradient at the Plantar Surface Level</b> <i>Mihaela Baritz, Alexandru Mosoi, Diana Cotoros, Paper ID: 213</i>
13.	<b>Human Body Biomechanics under Incidence of Induced Positive/Negative Emotions</b> <i>Mihaela Baritz, Alexandru Mosoi, Diana Cotoros, Paper ID: 215</i>
14.	<b>Biomechanics of Flexible Wing Drones Usable for Emergency Medical Transport Operations</b> <i>Radu-Călin Pahonie , Răzvan-Viorel Mihai, Cristian Barbu, Paper ID: 299</i>

## Medical Imaging and Image Processing (II)

Saturday, 21<sup>st</sup> November, 8:30-11:00

Room Creanga (Room B), Astoria Hotel

Chairpersons: *Rangaraj Rangayyan, Thomas Deserno, Silviu Bejinariu*

1.	<b>Nonlinear Fourth-order Hyperbolic PDE-based Image Restoration Scheme</b> <i>Tudor Barbu, Paper ID: 15</i>
2.	<b>Automatic Segmentation of Infantile Hemangiomas Within an Optimally Chosen Color Space</b> <i>Serban Oprisescu, Mihai Ciuc, Alina Sultana, Irina Vasile, Paper ID: 77</i>
3.	<b>Why Should We Use the Non-Existent? Advantages of Application of Unconventional Computing to Processing of Noisy Medical Images</b> <i>Lyudmila Burtseva, Paper ID: 86</i>
4.	<b>A Multiplicative Gradient-Based Anisotropic Diffusion Approach for Speckle Noise Removal</b> <i>Romulus Terebes, Monica Borda, Christian Germain, Raul Malutan, Ioana Ilea, Paper ID: 89</i>
5.	<b>Image Processing by means of Some Bio-Inspired Optimization Algorithms</b> <i>Silviu-Ioan Bejinariu, Hariton Costin, Florin Rotaru, Ramona Luca, Cristina Niță, Paper ID: 109</i>
6.	<b>Combining Blood Vessel Segmentation and Texture Analysis to Improve Optic Disc Detection</b> <i>Loretta Ichim, Dan Popescu, Stefan Cirneanu, Paper ID: 112</i>
7.	<b>Retinal Vessel Labeling Method</b> <i>Florin Rotaru, Silviu-Ioan Bejinariu, Ramona Luca, Cristina Niță, Paper ID: 115</i>
8.	<b>Speckle Noise Removal in Ultrasound Images using Sparse Code Shrinkage,</b> <i>Raul Măluțan, Romulus Terebeș, Christian Germain, Monica Borda, Mihaela Cișlariu, Paper ID: 149</i>
9.	<b>Neural Network Based Edge Detection for CBCT Segmentation</b> <i>Ionel-Bujorel Pavaloiu, Nicolae Goga, Andrei Vasilateanu, Iuliana Marin, Andrei Ungar, Ion Patrascu, Catalin Ilie, Paper ID: 169</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**  
*Room Eminescu (Room A), Astoria Hotel*

10.	<b>Automatic Contour Detection from Automatic Contour Detection from Dental CBCT DICOM Data</b> <i>Iuliana Marin, Ionel-Bujorel Păvăloiu, Nicolae Goga, Andrei Vasilăţeanu, George Drăgoi, Paper ID: 179</i>
11.	<b>A Pupil Center Detection Algorithm Based on Eye Color Pixels Differences</b> <i>Catalin Ionescu, Cristian Fosala, Daniel Petrisor, Cristian Zet, Paper ID: 202</i>
12.	<b>An Approach to the Verilog-based System for Medical Image Enhancement</b> <i>Iuliana Chiuchisan, Paper ID: 214</i>
13.	<b>Quantitative Diffusion - Weighted Imaging Apparent Diffusion Coefficient Values and Perfusion - Weighted Imaging Relative Cerebral Blood Volume in Characterization of Mixed Gliomas (Grading II/III)</b> <i>Teodora - Anca Albu, Stanca - Mihaela Pleş, Paper ID: 229</i>
14.	<b>Quantification of Apparent Diffusion Coefficient and Relative Cerebral Blood Volume for Analysis Concerning Gender and Age as Determinant Factors in Glioma Prospect</b> <i>Teodora - Anca Albu, Stanca - Mihaela Pleş, Paper ID: 257</i>

## **Workshop: New Advances in Motor-Recovery Neurotechnology**

*Saturday, 21st November, 9:00-11:00*  
*White Hall (Room C), Traian Hotel*

Chairpersons: *Marian Poboroniuc, Dănuţ Irimia*

## Workshop: Medicine and Informatics

Saturday, 21<sup>st</sup> November, 11:15-13:15

Room Eminescu (Room A), Astoria Hotel

Chairpersons: *Paraschiva Postolache, Anca Munteanu*

1.	<b>Home Blood Pressure Monitoring – One Step Towards Reducing Defensive Medicine</b> <i>Adina Carmen Ilie, Anca Iuliana Pîslaru, Irina Crăcană, Ramona Ștefăniu, Ioana Dana Alexa, Paper ID: 22</i>
2.	<b>Particularities of Monitoring Elderly Patients With Cardiac Procedures</b> <i>Irina-Mihaela Cracana, Ramona Stefaniu, Adina-Carmen Ilie, Anca Paslaru, Ioana-Dana Alexa, Paper ID: 32</i>
3.	<b>RBCs Membranes Protein Complexes as a Marker of their Functional Status</b> <i>Tamar V., Sanikidze, Eka R. Shekiladze, Maka L. Buleishvili, Sophia.T. Turabelidze, Tea T. Gabunia, Paper ID: 56</i>
4.	<b>Arterial Hypertension and Obstructive Sleep Apnea -Challenges of Association</b> <i>Doina Adina Todea, Irina Mihaela Todor Bondei, Andreea Codruta Coman, Paper ID: 68</i>
5.	<b>The Role of Human Saliva on The Elongational Properties of a Starch-Based Food Product</b> <i>Mihaela Turcanu, Nadja Siegert, Lucia Frau Tascon, Ioana Laura Omocea, Corneliu Balan, Crispulo Gallegos , Edmundo Brito-de-la-Fuente, Paper ID: 74</i>
6.	<b>Risk Factors of Titanium Locking Plate Osteosynthesis</b> <i>Dragos Popescu, Petrica Vizureanu, Mirebela Georgiana Minciuna, Bogdan Veliceasa, Ovidiu Alexa, Paper ID: 118</i>
7.	<b>QT Interval in Vascular Dementia and Alzheimer’s Disease</b> <i>Daniela Matei, Calin Corciova, Radu Matei, Irina Constantinescu, Iulian D. Cuciureanu, Paper ID: 201</i>
8.	<b>The Clinical Utility of TORCH Testing of Pregnant Women from Northeastern Romanian Population - Application of Electrochemiluminiscence Assay</b> <i>Ramona Gabriela Ursu, Diana Costin, Luminița Smaranda Iancu, Dragoș Nemescu, Paper ID: 262</i>

**Poster Session – Friday, 20<sup>th</sup> November, 8:00-9:30**  
*Room Eminescu (Room A), Astoria Hotel*

9.	<p><b>Neurosurgical Treatment of Glioblastomas Using Neurophysiological Monitoring, Neuronavigation, Radiosurgery and Fluorescence-Guided Surgery with 5-Aminolevulinic Acid</b></p> <p><i>Munteanu Maria-Raluca, Poeata Ion, Eva Lucian, Iordache Alin-Constantin, Turliuc Dana-Mihaela, Paper ID: 67</i></p>
10.	<p><b>The Characteristics of Metabolic Profile in Obstructive Sleep Apnea Patients from Pneumology Department of Cluj-Napoca, Transylvania Region</b></p> <p><i>Doina Adina Todea, Loredana Elena Rosca, Andreea Codruta Coman, Paper ID: 69</i></p>
11.	<p><b>The Usefulness of Heart Rate Variability Linear and Non Linear Parameters in the Evaluation of Autonomic Dysfunction Associated with Liver Cirrhosis</b></p> <p><i>Robert D. Negru, Doina - Clementina Cojocar, Sorin Ungurianu, Paper ID: 79</i></p>
12.	<p><b>Role of Reactive Oxygen and Nitrogen Species in Pathogenesis of Cholestasis (Experimental Study)</b></p> <p><i>Tamar. V. Sanikidze, Salome A. Kiparoidze, Irina R. Modebadze, Eka D. Bakuradze, Irine Dj. Pkhakadze, Diana V. Dzidziguri, Paper ID: 85</i></p>
13.	<p><b>Evaluation of TRIGEN SURESHOT® Distal Targeting System - a New Electromagnetic Computer-assisted Guidance System</b></p> <p><i>Bogdan Veliceasa, Razvan Bandac, Dragos Popescu, Bogdan Puha, Ovidiu Alexa, Paper ID: 124</i></p>
14.	<p><b>The Role of Relation Between Stimulus Exhibition Duration and Psychometric Reaction Time in Lexical Decision Tasks</b></p> <p><i>Bogdan Dionisie, Rotariu Cristian, Hariton Costin, Cristina Dionisie, Paper ID: 151</i></p>
15.	<p><b>Risk Factors and Prevention Strategies for Falls in Elderly</b></p> <p><i>Anna Marie Herghelegiu, Gabriel Ioan Prada, Andreea Maria Marin, Raluca Mihaela Nacu, Paper ID: 153</i></p>
16.	<p><b>Computer and Internet Literacy in Older Age</b></p> <p><i>Anna Marie Herghelegiu, Gabriel Ioan Prada, Raluca Mihaela Nacu, Paper ID: 154</i></p>
17.	<p><b>Manometric Appreciation of the Anal Sphincter Function, when Aiming for a “Sphincter Saving” Procedure in Patients with Low Rectal Cancer</b></p> <p><i>D.V. Scripcariu, Sadiye-Ioana Scripcariu, R. Ciorap, V. Scripcariu, Paper ID: 155</i></p>

18.	<p><b>Contribution of Echocardiography in the Assessment of Left Diastolic Dysfunction in Elderly Patients</b></p> <p><i>Cringuta Paraschiv, Rodica Ghiuru, Irina Esanu, Paper ID: 157</i></p>
19.	<p><b>IL6 is Correlated With Metabolic Syndrome Parameters in Oral Lichen Planus</b></p> <p><i>Tatiana Taranu, Magda Constantin, Didona Ungureanu, Irina Mihaela Esanu, Mihaela Paula Toader, Paper ID: 165</i></p>
20.	<p><b>Benefits of Using Thoracic Echocardiography in the Evaluation of Patients with Psoriasis</b></p> <p><i>Irina Mihaela Esanu, Cringuta Mariana Paraschiv, Tatiana Taranu, Mihaela Paula Toader, Paper ID: 167</i></p>
21.	<p><b>Mobile Phone Interventions in the Healthcare of Chronic Diseases</b></p> <p><i>Elena Toader, Dana Elena Mitrica, Gheorghe Balan, Paper ID: 171</i></p>
22.	<p><b>Ethical Values of the Medical Education</b></p> <p><i>Elena Toader, Gheorghe Balan, Diana Bulgaru Iliescu, Paper ID: 172</i></p>
23.	<p><b>Bioelectrical Thoracic Impedance Role in the Management of Hypertension</b></p> <p><i>Irina Mihaela Esanu, Mihaela Boanca, Cringuta Mariana Paraschiv, Paper ID: 173</i></p>
24.	<p><b>The Study Regarding the Influence of Body Weight in Triggering Low Back Pain Chronic</b></p> <p><i>Sînziana-Călina Silișteanu, Mihai Covașă, Paper ID: 181</i></p>
25.	<p><b>Minimally Invasive Plate Osteosynthesis (Mipo) With DCS In Subtrochanteric Femoral Fractures. Is Still A Reasonable Option?</b></p> <p><i>Sirbu Paul Dan, Asaftei Razvan , Petreus Tudor, Berea Grigore, Sova Rares, Tudor Razvan, Paper ID: 186</i></p>
26.	<p><b>Electrical Resistance Interdependence of Electrode Contact - Human Tissue and Pathological Status of the Orthopaedic Patient</b></p> <p><i>Zală Andrei, Coțîrlet Adrian, Hnatiuc Eugen, Braga Dan, Paper ID: 195</i></p>
27.	<p><b>Telemedicine - a Possible Quality Indicator for Endoscopic Retrograde Cholangiopancreatography?</b></p> <p><i>Gheorghe Balan, Dana Elena Mitrica, Andrei Vasile Olteanu, Elena Toader, Paper ID: 204</i></p>
28.	<p><b>The Renin-Angiotensin and Kinin-Kallikrein Systems Between Industrial and Informational Epochs. Conflict of Defensive Programmes: Pathogenic or Sanogenic?</b></p> <p><i>Vitalie Scripnic, Aurel Saulea, Leonid Churilov, Valeriu Cobet, Vasile Socolov, Paper ID: 220</i></p>

29.	<p><b>The Importance of Nutrition and Physical Activity in Young People Increased Quality of Life</b></p> <p><i>Sînziana-Călina Silișteanu, Mihai Covașă, Paper ID: 230</i></p>
30.	<p><b>Breast Cancer Radiotherapy: Past, Present and Techniques Evolving</b></p> <p><i>Anca Munteanu, Silvana Ojica, Diana Ancuta Cojocaru, Catalina Ursache, Alina Rogojanu, Anamaria Constantin, Paper ID: 236</i></p>
31.	<p><b>Long-Term Outcome of Two Types of Endoprosthesis in the Treatment of MP and PIP Joints after Posttraumatic Disorders</b></p> <p><i>Teodor Stamate, Lucian Nelu Popa, Aurelian Radu Budurcă, Gabriel Mazilu, Andrei Nicolae Lazar, Paper ID: 238</i></p>
32.	<p><b>Nickel and Contact Dermatitis of Children</b></p> <p><i>Georgeta Sinițchi, Diana Costin, Smaranda Diaconescu, Paper ID: 265</i></p>
33.	<p><b>Data Analysis of Medical Exposures in Diagnostic and Interventional Radiology</b></p> <p><i>Irina-Anca Popescu, Andreea Teodor, Cătălin Pricop, Veronica Tănasă, Diana Costin, Paper ID: 273</i></p>
34.	<p><b>Impact of Infection with Streptococcus Pneumoniae on Respiratory Pathology in Children</b></p> <p><i>Laura Mihaela Trandafir, Mihaela Moscalu, Lucian V. Boiculese, Alexandra Maria Tudose, Ingrith Miron, Paper ID: 285</i></p>
35.	<p><b>The Role of Semantic Expectation Versus Written Words Stimuli Involvement in N400 Onset</b></p> <p><i>Bogdan Dionisie, Hariton Costin, Elena Cojocaru, Cristina Dionisie, Paper ID: 292</i></p>
36.	<p><b>Management of Complex Cervical Trauma – Case Report</b></p> <p><i>Florentina Severin, Mihail Dan Cobzeanu, Doina Vesa, Bogdan Mihail Cobzeanu, Paper ID: 295</i></p>

## Workshop: Modern Methods of Learning in Dental Medicine

Saturday, 21<sup>st</sup> November, 11:15-13:15

Room Creanga (Room B), Astoria Hotel

Chairperson: *Norina Consuela Forna*

1.	<b>Three-Dimensional Analysis of Malocclusion and Orthodontic Treatment Simulation</b> <i>Georgeta Zegan, Cristina Gena Dascalu, Tudor Timuș, Radu Bogdan Mavru, Eduard Radu Cernei, Paper ID: 62</i>
2.	<b>Aspects in Biomaterials Used in the Manufacture of Total Prosthesis. Study on a Group of Patients with High Blood Pressure</b> <i>Maria Bolat, Rodica Ghiuru, Smaranda Diaconescu, Doriana Agop-Forna, Norina Forna, Paper ID: 114</i>
3.	<b>Assessing the Level of Dental Anxiety Among Patients in Dental Offices in Iasi, using Corah's Dental Anxiety Scale</b> <i>Maria-Antonela Beldiman, Ioana Mârțu, Diana Diaconu, Elena Luca, Paper ID: 146</i>
4.	<b>Research on Variations of Serum Concentrations of Divalent Cations for Patients with Malignant Cancers of the Oro-Maxillo-Facial Area</b> <i>Elena Luca, Ioana Grigore, Maria-Antonela Beldiman, Paper ID: 159</i>
5.	<b>Effect of Anti-Epileptic Drugs on the Oral Health of Epileptic Children</b> <i>Ioana Grigore, Laura Mihaela Trandafir, Vasilica Toma, Georgeta Diaconu, Daniela Matei, Elena Luca, Paper ID: 282</i>
6.	<b>FEM Analysis of One Element Prosthesis on Dental Implant</b> <i>Iulia Roatesi, Simona Roatesi, Constantin Rotaru Paper ID: 105</i>

**Poster Session** – Friday, 20<sup>th</sup> November, 8:00-9:30

Room Eminescu (Room A), Astoria Hotel

7.	<b>Means of Evaluation and Treatment in the Orofacial Myogenic Pain for Rheumatic Patients</b> <i>Maria Daniela Crăciun, Adriana Sabău, Paper ID: 191</i>
8.	<b>Possibilities and Limitations in the Kinetic Treatment of the Temporomandibular Joint Dysfunction in Rheumatic Patients</b> <i>Maria Daniela Crăciun, Rodica Marieta Chiriac, Paper ID: 209</i>



9.	<p><b>In-Vitro and In-Vivo Evaluation of Two Surface Treatments on a Commercial Denture Base Biomaterial</b></p> <p><i>Alexandru-Titus Farcasiu, Catalina Farcasiu, Livia-Alice. Tănăsescu, Oana Cella Andrei, Dan Mihai Ștefănescu, Aneta Munteanu, Paper ID: 255</i></p>
10.	<p><b>Influence of the Implant Prosthetic Restorations Components on the Stress Values and Distribution in Surrounding Bone- A Finite Element Analysis</b></p> <p><i>L.A. Tănăsescu, A. T. Farcașiu, C. Farcașiu, M. Imre, M.H. Țierean, D. Munteanu, O.C. Andrei, Paper ID: 256</i></p>
11.	<p><b>Compared Stress Levels of Removable Partial Dentures with Attachments with and without Distal Implants - a Finite Element Analysis</b></p> <p><i>O.C. Andrei, C. Dăguci, M.H. Țierean, T.A. Farcașiu, C. Farcașiu, L.A. Tănăsescu, Paper ID: 261</i></p>