# THE 32<sup>nd</sup> INTERNATIONAL CONFERENCE ON MEDICAL INFORMATICS, RO-MEDINF 2012 15-17 November 2012, TIMIŞOARA, Romania "INNOVATION & COOPERATION"

organized by

#### Romanian Society of Medical Informatics

under the auspices of the
Romanian Academy of Medical Sciences
in cooperation with

"Politehnica" University Timişoara and "Victor Babeş" University of Medicine and Pharmacy Timişoara

## Thursday, 15.11.2012

17:00 - 17:30	Registration	
17:30 – 18:00	Opening Ceremony	
18:00 - 19:00	Keynote session	Chair: Lăcrămioara Stoicu-Tivadar
10.00 - 15.00	Reynote session	Citair. Lacrainioara Stoicu-rivadai

#### 19:30 - 21:00 Welcome Party

#### Friday, 16.11.2012

Jay, 10.11.20	•••	
08:30 - 13.00	Registration	
09:00 - 09:30	Invited session	Chair: Gheorghe Mihalaș
	Alexander Hoerbst, Press and Information Officer, EFMI	eHealth in Europe – Status and Challenges
09:30 - 11:00	Innovative approaches to eHealth applications	Chairs: Diana Lungeanu Marius Mărușteri
09.30-09.45	Marius Măruşteri, Marius Petrişor, Peter Olah, Bogdan Haifa, Klara Brînzaniuc, Vladimir Bacârea (University of Medicine and Pharmacy Targu Mureș)	Challenges in the Use and Development of Innovative Technologies for Virtual Laboratories in the Medical Field - A Case Study
09.45-10.00	Sorin Puşcoci (TCT Department, National Communication Research Institute, Bucharest)	Some Aspects Regarding Tele-Assistance Integrated Services
10.00-10.15	Jon Sfera (General Hospital Vrsac, Serbia)	Development of Cross-Border Telediagnostic and Teleconsultation Network in Health Institutions
10.15-10.30	Andreas Kuglis, Dan Dobrescu, Cosmin Ovidiu Câtu (Syonic, Timisoara)	The Romanian Public Electronic Prescription System
10.30-10.45	Oana Sorina Lupşe, Lăcrămioara Stoicu- Tivadar (University "Politehnica" Timişoara)	e-Prescription Ontologies for Cloud Computing Services
10.45-11.00	Cristian Rotariu, Robert Lupu, George Vieriu ("Gheorghe Asachi" Technical University of Iași)	A Respiration Remote Monitoring System for Sleep Disorders Detection Using Wireless Low Power Accelerometer-Based Devices

11:30 - 12:00	Invited session	Chair: Gheorghe Mihalaş
	Traian C. Ionescu, Councilor Siveco, Bucharest, Liliana Dobrica, Alexandra Cernia, Anca Mihailov (Siveco, University Politehnica of Bucharest)	Problems and Solutions of Interoperability in Medical Information Systems
12:00-13.30	Information models	Chairs: Vasile Stoicu-Tivadar Mihai Tărâță
12.00-12.15	Mihaela Vida, Lăcrămioara Stoicu- Tivadar, Elena Bernad (University "Politehnica" of Timişoara, University of Medicine and Pharmacy "Victor Babes", Timisoara)	Contributions on Interoperability Modelling Starting from Generic Component Model
12.15-12.30	Virgil Enătescu, Virgil-Radu Enătescu (Romanian Academy of Medical Science, University of Medicine and Pharmacy Timișoara)	Arguments for the Validation of Informational Levels of Psychic Model
12.15-12.30	Virgil Enătescu, Virgil-Radu Enătescu, Ileana Enătescu (Romanian Academy of Medical Science, Satu Mare, University of Medicine and Pharmacy Timişoara)	Informational Support of Living Beings Behaviour
12.30-12.45	Sorin Soviany, Sorin Puşcoci, Mariana Jurian (TCT Department, National Communication Research Institute, Bucharest, University of Piteşti)	A Medical Data Biometric Security Model with Multiple Detectors
12.45-13.00	Sorana D. Bolboacă ("Iuliu Haţieganu" University of Medicine and Pharmacy Cluj-Napoca)	Is the Cook's Distance useful in Refining the Quantitative Structure-Property Linear Models? – The Case of Partition Coefficient
13.00-13.15	Victor-Dan Moga, Rodica Avram, Mariana Moga, Florin Vidu (University of Medicine and Pharmacy "Victor Babes" Timisoara)	Nonlinear Dynamics Parameters and Chaos Theory in the Assessment of Heart Diseases
13.15-13.30	Mircea-Sebastian Şerbănescu (University of Medicine and Pharmacy of Craiova)	Clustering of Mitotic Cells Figures of Histopathological Images from Breast Cancer

14:30-16:00	Metalevel information	Chairs: Victor-Dan Moga Sorana Bolboacă
14.30-14.45	Leonard Mada, Dan Dobrescu, Vlad Mucescu (Syonic SRL, Timisoara, University of Medicine and Pharmacy"Victor Babes", Timisoara)	The Topology of Online Messages Exchanged Between Primary Health Care Physicians
14.45-15.00	Diana Lungeanu, C. Muntean, F.R. Horhat, R.B. Timar, V.C. Vernic, A. Tudor, M.A. Focsa (University of Medicine and Pharmacy"Victor Babes", Timisoara)	Evaluation of a joint effort to integrate medical informatics and biostatistics into the medical curriculum: lessons for interdisciplinary education
15.00-15.15	Vasile Stoicu-Tivadar, Lăcrămioara Stoicu-Tivadar, Valentin Gomoi, Mihaela Vida, Raul Robu, Vasile Topac, Daniel Dragu, Oana Lupșe (University "Politehnica" Timișoara)	Maximizing the Impact of <i>eHealth</i> Research Results by Identifying Opportunities for Cooperation in Doctoral Research
15.15-15.30	Daniel Dragu, Valentin Gomoi, Vasile Stoicu-Tivadar (University "Politehnica" Timisoara)	Using Topic Maps to Gather Knowledge for Clinical Decision Support Systems
15.30-15.45	Valentin-Sergiu Gomoi, Vasile Stoicu- Tivadar (University "Politehnica" from Timişoara)	Challenges Regarding the Connection of <i>ASTI</i> System to the <i>vMR</i> Model
15.45-16.00	Gheorghe-Ioan Mihalas, Sorin Paralescu, Minodora Andor, Danina Muntean, Nicoleta Mirica, Dan Lighezan, Anca Tudor, Ovidiu Fira- Mladinescu (Victor Babes University of Medicine and Pharmacy, Timisoara)	Medical Data Representation by Sonification. Applications for Cardiac Signals
16.00-16.15	Dan D. Farcaș (e-Health expert, Bucharest, Romania)	A historical view on Health Informatics in Romania & Quo Vadis Health Informatics in Romania?

16:15 – 16:30 *Coffee Break* 

# 16:30 – 18:30: Workshop: Professional development in Nursing Informatics Chairs: Ioana Moisil, Corina Vernic

Corina V. Vernic (University of Medicine and Pharmacy "Victor Babes", Timisoara)	Nursing Informatics. Current and Future Trends
Ioana I. Moisil (University Lucian Blaga, Sibiu)	Nursing research in the XXI century
Gabriela Georgescu (University of Medicine and Pharmacy "Gr. T. Popa", lasi)	Nursing Profession and a Social Responsibility in Promoting Health, Preventing Illness, Restoring Health and Relief of Suffering
Sorin Ursoniu, Corina V. Vernic, Calin Muntean (University of Medicine and Pharmacy "Victor Babes" Timisoara)	Nursing Case Management: Identifying, Coordinating and Monitoring the Implementation of Care Services for Patients
Ioana Gadalean, Daniela Ionescu (Oncological Institute "I. Chiricuta", Cluj- Napoca, University of Medicine and Pharmacy "Iuliu Hatieganu", Cluj- Napoca)	Tools and Applications to Improve the Quality of Care and Patient Safety
Calin Muntean, Corina V. Vernic (University of Medicine and Pharmacy "Victor Babes", Timisoara)	Challenges and Solutions for Inclusion of Nursing Data in Data Warehouses
Simona-Angela Apostol, Calin Muntean, Corina V. Vernic (University of Tibiscus, Faculty of Computers and Applied Informatics, Timisoara, University of Medicine and Pharmacy "Victor Babes" Timisoara)	Data Exchange Standards in Healthcare
Marilena Cheptea, Irina David, Georgia Cirebea, Ioana Gadalean ( "Prof. Dr. I. Chiricuta" Institute of Oncology Cluj-Napoca, Romania)	Addressability of the "Prof. Dr. I. Chiricuta" Institute of Oncology, Cluj-Napoca. Information and Data Analysis and Management
Dan Ilincariu (Clinica A.T.I., Spitalul Clinic Județean de Urgență Timișoara)	Impact of medical information on the activities of nurses
Cosmin-Ovidiu Câtu, Andreas Kuglis, Dan Dobrescu (Syonic Timișoara)	Medical Software – a Tool for Improving the Activity of Nurses (DEMO)

## 16:30-18:30 Poster session Chairs: Călin Muntean, Valentin Gomoi

<i>Mariana Bazavan, Claudiu Botezat</i> (CNSISP, Bucharest)	Innovation and Cooperation: Implications in the achievement of the computerized disease registry for diabetes
Călin Muntean, Simona Apostol, Gheorghe-Ioan Mihalaş (University of Tibiscus, Timişoara, University of Medicine and Pharmacy "Victor Babes" Timisoara)	Support for Electronic Health Records in Romanian Law
Apostol Angela-Simona, Mutaşcu Lucian, Focşa Mircea (University of Tibiscus, Timişoara, Romanian-Swiss Multimedia Institute, Timişoara, University of Medicine and Pharmacy "Victor Babes" Timisoara)	Certification Model of the EHR Systems in Romania
Silvia Nicoleta Mirica, Valentin Ordodi, Gabriel Gheorghiu, Danina Muntean (University of Medicine and Pharmacy "Victor Babes" Timisoara)	Experimental Model for the <i>In Vivo</i> Assessment of Myocardial Ischemia/Reperfusion Injuries in Rodents
Oana Duicu, Dorina Gheorgheosu, Simona Trancota, Silvia Nicoleta Mirica, Danina Muntean (University of Medicine and Pharmacy "Victor Babes" Timisoara)	High-Resolution Respirometry for the Assessment of Mitochondrial Respiratory Function
Adrian Sturza, Sebastian Benkhoff, Ovidiu Fira- Mladinescu, Ralf Brandes, Danina Muntean (University of Medicine and Pharmacy "Victor Babes" Timisoara)	Experimental Models for the <i>In Vitro</i> Study of Endothelial Dysfunction
Oana Astrid Vătămanu, Mihaela Ionescu, Gheorghe- Ioan Mihalaş (University of Medicine and Pharmacy "Victor Babes" Timisoara)	Analysis and Classification of Ultrasound Images Using the Local Binary Pattern Operator
Efthymios Kontaxis (Naval Athens Hospital, Athens, Greece)	Adjustment of the Athletes in the Sports (Football) via the Help and Accumulation of New Information Technology in Healthcare Medical Data and Experience in Greece
Andreea Robu, Lăcrămioara Stoicu-Tivadar, Adrian Neagu University ("Politehnica" Timișoara, "Victor Babeş" University of Medicine and Pharmacy, Timișoara)	Computational Models Used in Metropolis Monte Carlo Simulation of the Cellular Dynamics in Tissue Engineering
Alexandru Şerban, Corina Şerban, Lăcrămioara Stoicu- Tivadar (University "Politehnica", Timisoara, University of Medicine and Pharmacy "Victor Babes" Timisoara)	Challenges of User Experience Design in Medical Distributed Applications
Cosmin Cernăzanu, Ștefan Holban (University "Politehnica" Timișoara)	X-ray image segmentation with convolution neural network
Rodica Dimitriu, Mariana Bazavan, (CNSISP Bucharest)	Security Challenges in Helathcare IT

# Saturday, 17.11.2012

09:00 - 10:30	Data and image processing in medical field	Chairs: Anca Tudor Gabriela Georgescu
09.00-09.15	Gal Norbert Vasile Stoicu-Tivadar (University "Politehnica" Timisoara)	Using Genetic Algorithms to Generate Inference Rules for Semantic Analysis of Medical Images
09.15-09.30	Mihaela Ionescu, Cristin Constantin Vere, Oana Astrid Vătămanu, Anca Tudor, Gheorghe-Ioan Mihalaş (University of Medicine and Pharmacy "Victor Babes" Timisoara, University of Medicine and Pharmacy Craiova)	Image Processing Techniques Applied on Wireless Capsule Videos Obtained from Patients with Gastrointestinal Pathology
09.30-09.45	Florin Cumpănaşu, Cosmin Mureşan, Nicuşor Lare, Bogdan Ionuţ Şanta (Babes Bolyai University, Cluj Napoca, Emergency Hospital, University of Agricultural Sciences and Veterinary Medicine, Cluj Napoca)	Applications of a Restricted Natural Language for Medical Software Development Without Programming Knowledge
09.45-10.00	Călin Drimbău, Andreas Kuglis, Dan Dobrescu (Syonic, Timisoara)	Perspectives and Practices for Using Information Systems as Tools for Better Management Decisions in Healthcare
10.00-10.10	Gabriela Georgescu, Laura Mihaela Palade (University of Medicine and Pharmacy "Gr. T. Popa", Iasi)	Statistical Analysis and Interpretation of the Formulation Factors on Flow Properties and Compressibility of Powder Mixtures
10.10-10.20	Laura Mihaela Palade, Gabriela Georgescu (University of Medicine and Pharmacy "Gr. T. Popa", lasi)	Study of the influence of formulation on flow properties and compressibility of powder mixtures in obtaining vaginal tablets with 5 - fluorouracil
10.20-10.30	Mircea M. Jivulescu, Elena S. Bernad, Diana Lungeanu University "Politehnica" Timisoara, Bega Hospital of Obstetrics and Gynecology, Timisoara, University of Medicine and Pharmacy Timisoara)	Obstetrical Risk in Umbilical Cord Pathology: A Statistical Approach

10:30 – 11:00 Round Table: EFMI and RSMI

11:00 – 11:30 *Coffee Break* 

11:30 – 12:30 Meeting of the Romanian Society of Medical Informatics

12:30 – 13:00 Closing Ceremony, Awards