# **Conference Program**



Agia Pelagia, Heraklion, Crete, Greece July 14-17, 2017

**Conference Location:** 

CHC Athina Palace Resort & Spa Made, 71500 Heraklion, Crete, Greece <u>http://www.athinapalace.com.gr/</u>

#### 08:45-09:00 Welcome Speech

Conference Room: A Time: 09:00-09:30 Plenary Lecture 1:



**Research Spatio-Temporal Data Mining of Ancient Genome Databases** by Prof. Peter Z. Revesz, University of Nebraska-Lincoln, Lincoln, NE, USA.

Conference Room: C Time: 09:00-09:30 Plenary Lecture 2:



Multimodality Molecular Imaging: Paving the Way for Personalized Medicine by Prof. Habib Zaidi, Geneva University Hospital, Geneva, SWITZERLAND.

### Conference Room: A Time: 09:30-10:00 Plenary Lecture 3:



Research Experiences in Biomedical Sciences & Engineering: Prosthetic Hand by Prof. D. Subbaram Naidu, University of Minnesota Duluth, Duluth, MN, USA.

### Conference Room: B Time: 09:30-10:00 Plenary Lecture 4:



The Inverse of the Belonging Individual Probability and the Discrete Wavelet as a Hybrid Technique for Anomalous Detection and Identification

by Prof. Benabdellah Yagoubi, Department of Electrical Engineering University of Mostaganem, Mostaganem, ALGERIA.

### Conference Room: C Time: 09:30-10:00 Plenary Lecture 5:



Electrophysical Activity in Neurons and Unicellular Organisms for Bipolar Potential Generation and Utilization

by Prof. Yumi Takizawa, Institute of Statistical Mathematics, Tokyo, JAPAN.

Conference Room: A Time: 10:00-10:30 Plenary Lecture 6:



Life Cycle Assessment of the Recycling Process of Thermal Spray Waste in Ceramic Products

by Prof. Anna Maria Ferrari, Department of Science and Engineering Methods, University of Modena and Reggio Emilia, Modena, ITALY.

Conference Room: B Time: 10:00-10:30 Plenary Lecture 7:



**Electricity Generation by Living Plant and Supply Through Nano Trees** by Prof. Hari Kumar Naidu, Electrical Engineering, Tulsiramji Gaikwad-Patil College of Engineering & Technology, Nagpur, India.

Conference Room: C Time: 10:00-10:30 Plenary Lecture 8:



Computer-Aided Pathological Image Analysis to Assist in Oncological Diagnostics

by Prof. Wlodzimierz Klonowski, Nalecz Institute of Biocybernetics and Biomedical Engineering, Polish Academy of Sciences, Warsaw, POLAND.

10:30-11:00: Coffee Break

### Conference Room: A Time: 11:00-13:00 Special Session CSCC '17: Systems and Technology for Personal and Information Security - Part I Chair: Andrzej Walczak, Maciej Kiedrowicz

Evaluation of Diagnostic Classifiers Using Artificial	Karol Antczak, Andrzej Walczak, Michał	
Clinical Cases	Paczkowski	cscc-017
		017
Network Model of Risk Analysis in the Technical	Andrzej Walczak, Jarosław Napiórkowski,	
Structures	Piotr Adamczyk, Grzegorz Kiryk	cscc-107
Multi-Faceted Methodology of the Risk Analysis and		
Management Referring to the IT System Supporting the		
Processing of Documents at Different Levels of		
Sensitivity	Maciej Kiedrowicz	cscc-048
System Risk Model of the IT System Supporting the		
Processing of Documents at Different Levels of		
Sensitivity	Jerzy Stanik	cscc-049
Sensor-Based Supporting Mobile System Parkinson		
Disease Clinical Tests Utilising Biomedical and RFID		
Technologies	Mariusz Chmielewski, Michał Nowotarski	cscc-052
Analytical Processing System of Business Processes,		
Methods of Exploration of Business Process Definitions		
and Instances	Jarosław Koszela	cscc-054
Dynamic Business Process in Workflow Systems	Maciej Kiedrowicz	cscc-058
		0.500-0.58
Optimization of Equipment Deployment on Fire Trucks	Tadeusz Nowicki	cscc-074
	Tadeusz Nowicki, Lukasz Matuszelanski,	
Virtual Simulator Ergo Truck of Crew Operations During	Jaroslaw Koszela, Roman Wantoch-	
the Removal of Equipment from Fire Trucks	Rekowski	cscc-075

### Conference Room: B Time: 11:00-13:00 EEDE '17 & GESE '17: Environmental Sciences, Geology and Seismology Chair: Badea Lepadatescu, Mihai Cruceru

Studies Regarding the Use of Renewable Energy Sources to Produce Electricity	Badea Lepadatescu, Anisor Nedelcu	inase-148
The Removal of Heavy Metal Using Biomaterial to Enhance the Quality of Life in Community	Chinnawat Satsananan	inase-104
Divorce Case: Case Study of Desertion as per Thai Law Compared With Lao Law	Kamonwan Yoowattana	inase-105
Study on Char Recovery from Bottom Coal Ash	Mihai Cruceru, Bogdan Diaconu, Lucica Anghelescu, Traian Alexandru Abagiu	inase-176
Microtremors for Seismic Response Assessments of Important Modern and Historical Structures of Crete	Margarita Moisidi, Filippos Vallianatos	inase-185
Study on Ways to Accommodate the Entry of Migrant Workers into SMEs Business of Thailand. A Case Study: Myanmar and Lao Migrant Workers	Pattaravis Yoowattana	inase-106
Participation in Development of the Bangsue District Community, Bangkok, Thailand	Wasana Suridechakul	inase-108
Complexity of Natural Vibrations: the Case Study of a Church Bell Tower	Ioannis Koutalonis, Filippos Vallianatos, Margarita Moisidi, Kaliopi Chochlaki	inase-186
A Model of Creative Tourism Management in Coastal Fishery at Ban Bang Lamung, Chonburi Province	Anyapak Prapannetivuth	inase-109
A Chi-Square Test to Assess the Completeness of Earthquake Catalogs	Myunghyun Noh	inase-123
Methodological Framework to Estimate the Coastal Sediment Supply of the Island Beaches	Ioannis Kontogeorgos, Ourania Tzoraki, Nicolaos Moutafis, Thomas Hasiotis, Adonis Velegrakis	inase-192

### Conference Room: C Time: 11:00-13:00 MEDICINE: Recent Advances in Medicine Chair: Yumi Takizawa, Wlodzimierz Klonowski

	-	
Advanced Model and Analysis of Activity in Neurons Based on Liquid Junctions Induced in Cytoplasm	Atsushi Fukasawa, Yumi Takizawa	60009-106
Automatic Segmentation of Morphological Structures in		
Microscopic Images of Lymphatic Nodes - Preliminary	Ryszard Gomolka, Wlodzimierz Klonowski,	
Results	Anna Korzynska, Krzysztof Siemion	60007-109
Ultrasound Attenuates Blood-Brain Barrier Disruption		
and Cerebral Edema after Traumatic Brain Injury in Mice	Wei-Shen Su, Feng-Yi Yang	60009-100
Electrophysical Modelling and Analysis of Electrical		
Transmission in Axons	Yumi Takizawa, Atsushi Fukasawa	60009-109
	Wlodzimierz Klonowski, Bozenna	
	Kuraszkiewicz, Ryszard Gomolka, Pawel	
Computer-Aided Image Analysis in Neuro-Pathology	Stepien	60007-106
	Penka A. Atanassova, Karamfil M.	
Metabolic Syndrome Severity Score: Range and	Bahchevanov, Mitko D. Mitkov, Radka I.	
Associations with Cardiovascular Risk Factors	Massaldjieva, Kostadin A. Chompalov	60009-103
Maternal Separation During Lactation Period Increases		
Levels of Pro-Inflammatory Cytokines in Brains of		
Adolescent Rats	Lu Song, Qingjun Huang, Haiyun Xu	60006-100
	Wlodzimierz Klonowski, Anna Korzynska,	
Computer-Aided Image Analysis in Onco-Pathology	Ryszard Gomolka, Pawel Stepien	60007-103

### Conference Room: A Time: 13:00-15:00 Special Session CSCC '17: Informatics in Control Theory and its Applications Title: Control Theory, Software and Education Chair: Marek Kubalcik

Predictive Control of Multivariable Time-Delay Systems	Kubalcik Marek, Bobal Vladimir	cscc-237
	Awwama Emad, Kadi Mohammad, Krayem	
Using Formal Methods in Distributed System Design	Said, Lazar Ivo, Rihawi Ahmad	cscc-250
	Miroslav Marcaník, Michal Šustek, Pavel	
Utilization of 3D Sensors in Robotics	Tomášek, Roman Jašek	cscc-235
	Milan Adamek, Miroslav Matysek, Michaela	
Computer Networks in Education	Barinova	cscc-278
	Karel Koplík, Peter Janků, Olga Voznyuk,	
Detecting Fire in Video Stream Using Statistical Analysis	Tomáš Dulík, Petr Snopek	cscc-274
Adaptive Control of Neural Network Synthesis	Pavel Vařacha	cscc-281
A Performance Comparison of Two Emotion-Recognition		
Implementations Using OpenCV and Cognitive Services	Luis Antonio Beltrán Prieto, Zuzana	
ΑΡΙ	Komínkova-Oplatková	cscc-314

### Conference Room: B Time: 13:00-15:00 CSCC '17: Applications of Computers in Sciences Chair: Jindrich Klufa, Tatiana Kudryashova

Optimization of Wave Pattern of Corrugation on Plates		
of Heat Exchanger	Václav Dvořák	cscc-109
Homogeneity of the Test Variants in Entrance Exams	Jindřich Klůfa	cscc-113
3D Model of Flow in Micro Channels	Tatiana Kudryashova, Sergey Polyakov	cscc-277
A Translation of the Malia Altar Stone	Peter Z. Revesz	cscc-357
	Bartosz Świderski, Michał Kruk, Stanisław Osowski, Grzegorz Wieczorek, Jarosław	
Milk Duct Segmentation in Microscopic HE Images of	Kurek, Leszek Chmielewski, Arkadiusz	
Breast Cancer Tissues	Orłowski	cscc-076
Automatic Regulation of Wastewater Discharge	Yolanda Bolea, Antoni Grau	cscc-038
The Cretan Script Family Includes the Carian Alphabet	Peter Z. Revesz	cscc-359
A Visual Cloud System for Parallel Programming Teaching and Learning	Victor Kasyanov, Elena Kasyanova	cscc-024
Universal Language Extension for Conducting Laboratory Experiments on Analogue and Digital Circuit Design	George Popov, Filip Krastev	cscc-348

### Conference Room: C Time: 13:00-15:00 INASE '17: Marine Engineering, Materials and Continoum Mechanics Chair: Cornel Bit, Zdeněk Kala

	-	
Studies Regarding the Tests of Permanent Magnet Motor for Vehicle Propulsion	Cornel Bit	inase-156
Exact Secular Equation of Rayleigh Waves Propagation at Frictionally Contact Layered Media on Anisotropic Elastic Half-Space		inase-006
Depth Stabilization of Biomimetic Underwater Vehicle Without Swim Bladder	Piotr Szymak, Tomasz Praczyk	inase-010
High–Level Control System for Biomimetic Autonomous Underwater Vehicle	Tomasz Praczyk, Piotr Szymak	inase-009
Probabilistic Evaluation of the Limit State Function of the Fatigue Resistance of Steel Bridges	Z. Kala, A. Omishore, S. Seitl, M. Krejsa, J. Kala	inase-114
Axisymmetric Torsion of an Elastic Layer Weakened by an External Crack	Kebli Belkacem, Merchiche Mouloud	inase-125
Chemical Bath Deposition Technique (CBD) of CdS used in CSS (Closed Space Sublimation) of CdTe Solar Cell	Z. Mahmood, F. U. Babar, S. Naz, H. U. Rehman	inase-110

15:00-15:30: Coffee Break

### Conference Room: A Time: 15:30-17:30 Special Session CSCC '17: Informatics in Control Theory and its Applications Title: Embedded Systems, Robotics, and Control Applications Chair: Zdeněk Úředníček

Comparison of Integrated and Composed Step-Down		
Converter in terms of EMC	Peter Janků, Luboš Lorenc, Tomáš Dulík	cscc-263
Hybrid Extension for Advanced Technology Zone	Václav Mach	cscc-254
Advanced Hardware Protection of Metallic Loops	Václav Mach, Milan Adámek	cscc-255
Cascode-Based Voltage-Amplifier Stage	Martin Pospisilik	cscc-297
DC Motors and Servo-Motors Controlled by Raspberry Pi	Michal Šustek, Miroslav Marcaník, Pavel	
2B	Tomášek, Zdeněk Úředníček	cscc-239
Active Damping of Multidimensional Mechanic Systems	Zdeněk Úředníček, Jaroslav Maloch	cscc-234

### Conference Room: B Time: 15:30-17:30 CSCC '17: Signal Processing Chair: Martin Grigryan, Joaquín Ordieres-Meré

	Zolotarev Valery, Ovechkin Gennady, Satybaldina Dina, Tashatov Nurlan,	
Divergence Coding for Convolutional Codes	Egamberdiyev Eldor	cscc-290
On the Representation of Signals Series by Faber- Schauder System	Tigran Grigoryan, Martin Grigoryan	cscc-068
Hierarchical Motion-Compensated Frame Rate Up- Conversion Using Gaussian Pyramid and Guidance Motion Vector	Bumjun Park, Jechang Jeong	cscc-031
An IoT–Based System that Aids Learning from Human Behavior: A Potential Application for the Care of the Elderly	Unai Saralegui, Miguel Ángel Antón, Joaquín Ordieres-Meré	cscc-292
Derivation of the Doppler Effect from the Maxwell's Equations	Yevgen V. Chesnokov, Ivan V. Kazachkov	cscc-233
Study of EEG with Epileptic Activity Using Spectral Analysis and Wavelet Transform	Radu Matei, Călin Corciovă, Doru Andrițoi, Daniela Matei	cscc-313
Statistical and Learning Aided Classifiers for ECG Based Predictive Diagnostic Tool	Sumi Bharali, Manash Pratim Sarma, Kandarpa Kumar Sarma, Nikos Mastorakis	cscc-273

### Conference Room: C Time: 15:30-17:30 EMET '17: Education and Modern Educational Technologies Chair: Eva Milkova, Badea Lepadatescu

Algorithmic Thinking and Mathematical Competences Supported via Entertaining Problems	Eva Milkova, Andrea Sevcikova	inase-004
Patient-Reported Outcome Versus Performance-Based		
Variations of Talk Test: A Baseline Comparison of	Siti R. Mahmod, Aqilah L. Narayanan, Eko	
Utterance Characteristics	Supriyanto	inase-143
	Diana Katherine Gonzalez Ocampo,	
Project-Based Learning to Develop Oral Production in	Jhonatan Correa Molina, Briam Steven	
English as a Foreign Language	Rojas	inase-180
Some Investigations Regarding the Academic		
Performance of Students Related to the Various		
Learning Activities	Mihaela Popescu	inase-169
Studies Regarding the Ways to Decrease the Expenses in		
the Area of Industrial Business	Catalin Gheorghe	inase-170
Trends of Thought that Allow College Students	M. A. Paola Andrea Mina Gómez, M. A.	
Reasoning Critically Through Everyday Situations	Heberth Caicedo Saldaña	inase-003
Using Robotic Kits and 3D printers at Primary (Lower		
Secondary) Schools in the Czech Republic	Radek Nemec, Petr Vobornik	inase-122
Drone in Construction	Rula Sharqi, Yasemin Nielsen, Ammar Kaka	inase-190

### Conference Room: A Time: 17:30-19:30 CSCS '17: Wireless Communications Chair: Angel Lozada, Yury Geints

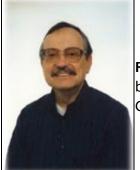
General Data Acquisition Platform for Wireless Sensor Network Based on CC2538	Zhi-Jun Yang, Yang-Yang Ding, Hong-Wei Ding, Yang Su	cscc-308
An Efficient FPGA Based Implementation of Multichannel Satellite Modulator	K. K. Vinaymurthi, K. M. Nitin Babu, K. V. Sachin, S. V. Hariprasad	cscc-021
Constraint Database Representation and Visualization of Sea Turtle Migration in MLPQ System	Semere Woldemariam, Peter Revesz	cscc-360
Design and Study of a Microstrip Slot Antenna Operating at 2.8/3.1/3.6/4.7/5.4 GHz	Angel Lozada, Andrés Piedrahita, Gloria Russi	cscc-294
Prospects for Atmospheric Optical Energy Transmission by Highpower Mid-IR Ultrashort Lasers	Yury Geints, Alexander Zemlyanov	cscc-005
Design and Simulation of Mobile adhoc Network (MANET) with Enhanced Security Services	Eman S. Eldin, Ibrahim Nabil Alsherbini Ibrahim, Mohamed Ibrahim Mohamed Abdelfattah	cscc-283
An Improved Technique for the Detection of Pilot Contamination Attacks in TDD Wireless Communication Systems	Dimitriya Mihaylova, Zlatka Valkova-Jarvis, Georgi Iliev	cscc-340

### Conference Room: B Time: 17:30-19:30 CSCC '17: Software and Algorithms for Systems Chair: Desineni S. Naidu, Daniel Dantchev

Synchronization of Singularly Perturbed Systems with		
Time Scales	Neng Wan, Desineni S. Naidu	cscc-042
Novel Asymmetrical Pulse Width Modulation Method	D. Baimel, S. Tapuchi, N. Baimel	cscc-028
The Continuous-Time H∞ Model Matching Problem with		
Integral Control in LMI Optimization	Murat Akın, Tankut Acarman	cscc-043
All-Optical Delay Line System Based on Nonlinearity in		
Optical Fibers at High Bit Rate	Mohamed S. Hassan, M. Atef Bassiouny	cscc-112
A New Efficient Fuzzy Fault Tolerant Routing Algorithm		
for Network-on-Chip	Ebrahim Behrouzian Nejad	cscc-070
An Air Flow Driven Wireless Node	Gregorio Boccalero, Corrado Boragno	cscc-318
Software System for Automatic Reaction to Network		
Anomalies and in Real Time Data Capturing Necessary		
for Investigation of Digital Forensics	Mladen Vukašinović	cscc-201

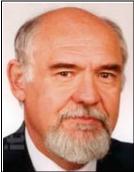
Poster Topic: Civil Engineering		
Risk Factors Detection for Safety Prioritisation in Tunnel	A. Alonso, S. Gerassis, Á. Saavedra, J. F.	
Construction Using Bayesian Networks	García, J. Taboada	inase-133

### Conference Room: A Time: 09:00-09:30 Plenary Lecture 9:



**Resilient Design of Unmanned Autonomous Systems** by Prof. George Vachtsevanos, Georgia Institute of Technology, Atlanta, GA, USA.

### Conference Room: A Time: 09:30-10:00 CSCC Tutorial:



Internet of Anything as System of Systems by Prof. Rudas Imre, Óbuda University, Budapest, HUNGARY.

### Conference Room: B Time: 09:30-10:00 Plenary Lecture 10:



# On a Linearization Method for the Dynamical Systems Associated to Excitable Media Models

by Prof. Adela Ionescu, Department of Applied Mathematics, University of Craiova, Craiova, ROMANIA.

### Conference Room: C Time: 09:30-10:00 Plenary Lecture 11:



The Use of the NCI-60 Cancerous Cell-Lines and CellMiner as a Foundation for the Exploration of Pharmacogenomics by Dr. William C. Reinhold, Genomics and Bioinformatics Group, Developmental Therapeutics Branch, NCI, NIH, USA.

### Conference Room: A Time: 10:00-10:30 Plenary Lecture 12:



**Electromagnetic Interference Risk Online Monitoring System** by Prof. Eko Supriyanto, Faculty of Medical Engineering, Malaysia University of Technology, Johor, MALAYSIA.

Conference Room: B Time: 10:00-10:30 Plenary Lecture 13:



**Industrial Experiences of Applying Set-Based Concurrent Engineering** by Prof. Ahmed Al-Ashaab, Manufacturing Department, Cranfield University, Cranfield, UK.

Conference Room: C Time: 10:00-10:30 Plenary Lecture 14:



Advances in Treatment in Pheochromocytoma (or Paraganglioma) by Prof. Salvador Borges-Neto, Duke University, Durham, NC, USA.

10:30-11:00: Coffee Break

### Conference Room: A Time: 11:00-13:00 Special Session CSCC '17: Systems and Technology for Personal and Information Security - Part II Chair: Andrzej Walczak, Maciej Kiedrowicz

A Semantic Similarity Evaluation Method and a Tool		
Utilised in Security Applications Based on Ontology	Mariusz Chmielewski, Małgorzata	
Structure and Lexicon Analysis	Paciorkowska, Maciej Kiedrowicz	cscc-050
Customer Service Processes Automation in	Robert Waszkowski, Maciej Kiedrowicz,	
Administrative Office with RFID Tagged Documents	Tadeusz Nowicki, Kazimierz Worwa	cscc-059
Access Control Management in Administrative Office	Robert Waszkowski, Maciej Kiedrowicz,	
with RFID Tagged Documents	Tadeusz Nowicki, Kazimierz Worwa	cscc-060
	Tadeusz Nowicki, Krzysztof Chlebicki,	
Simulator for Testing Hardware and Software of the	Dariusz Pierzchała, Kazimierz Worwa,	
Office System with RFID Tags	Robert Waszkowski	cscc-046
Evaluating the Impact of Testing Document Management		
System with RFID Tags Software on the Level of its	Kazimierz Worwa, Maciej Kiedrowicz,	
Reliability	Tadeusz Nowicki, Robert Waszkowski	cscc-055
	Rafał Kasprzyk, Marcin Paź, Zbigniew	
Modeling and Simulation of Botnet Based Cyber-Threats	Tarapata	cscc-053
The Architectural Software Concepts Implemented in		
Distributed High Resolution Constructive Simulation		
Environment SymSG Border Tactics, Supporting Polish	Mariusz Chmielewski, Damian Frąszczak,	
Border Guard Computer Assisted Exercises	Marcin Kukiełka, Dawid Bugajewski	cscc-072
High Detail Terrain Models and Multiresolution Path		
Finding Algorithms for Border Guard Constructive		
Simulator. A Study of Effective Movement Algorithms in	Mariusz Chmielewski, Jakub Kędzior, Piotr	
High Resolution Simulation Environment	Stąpor, Marcin Kukiełka	cscc-073
	Zbigniew Tarapata, Ryszard Antkiewicz,	
	Mariusz Chmielewski, Michał Dyk, Rafał	
A Computer System for CBRN Contamination Threats	Kasprzyk, Wojciech Kulas, Andrzej	
Analysis Support, Prediction their Effects and Alarming	Najgebauer, Dariusz Pierzchała, Jarosław	
the Population: Polish Case Study	Rulka	cscc-051

### Conference Room: B Time: 11:00-13:00 CSCC '17: Applications of Circuits and Electrical Motors Chair: Valeri Timoshenkov, Martin J. Burke

Quasi-One-Dimensional Van Der Waals Metals as Interconnects for the Next Generation of Electronic Devices and Circuits	Guanxiong Liu, Alexander Balandin	cscc-037
X-Band Core Chip SiGe Design for Phased Array T/R Modules	Valeri Timoshenkov, Andrey Efimov	cscc-328
Transient Response of Low-Power ECG Recoding Amplifiers for Use with Un-Gelled Electrodes	Martin J. Burke, Oscar Tuohy	cscc-057
Direct Torque Control of Induction Motor Using Seven- Level Cascaded Multilevel Inverter with Reduced Number of Switches	P. Rajan, S. Jeevananthan, P. Ranjith	cscc-040
Comparative Analysis of Resonant Converters for Energy Storage Systems		cscc-341
Speed Control of Switched Reluctance Motor Using Genetic Algorithm and Ant Colony Based on Optimizing PID Controller	Hassan El-Sayed Ahmed Ibrahim, Mohamed Said Sayed Ahmed, Khaled Mohamed Awad	cscc-327
Design of a Full 1Mb STT-MRAM Based on Advanced FDSOI Technology	Kotb Jabeur, Guillaume Prenat	cscc-331

### Conference Room: C Time: 11:00-13:00 MEROSTA '17: Mechatronics and Robotics, Structural Analysis Chair: Eko Supriyanto, Sergey Sayapin

Applications of Tactile Sensors and Displays in Robotically-Assisted Minimally Invasive Surgery	Sasha Mbabazi, Javad Dargahi, Amir Molaei	inase-126
Multimodalities Pain Assessment System Towards Robot Based Diagnostics	Nur F. M. Rozaini, Christina Pahl, Eko Supriyanto	inase-142
The Structural Analysis of Stringer Twisting Machine in Medium-Sized Aircrafts	Jae Gu Lee, Chae Yoon Yang, Yoo In Shin, Seong Min Hong, Seok Min Kim, Chul Ki Song	inase-120
Self-Propelled Autonomous 2D Parallel Robots for Sliding Cupping-Glass Massage for Back and Chest	Sergey Sayapin, Elena Sayapina	inase-129
Reduced Order Modeling of Two-Link Flexible Manipulators Using Finite Element Modal Decomposition	M. Sayahkarajy, E. Supriyanto, Z. Mohamed	inase-140
Risk Analysis of Transesophageal Echocardiography Telemanipulator in Catheterization Laboratory	Indhika F. Warsito, Christina Pahl, Eko Supriyanto, A. Soesanto	inase-144
Sensors, Actuators, and Devices in Cardiovascular Systems	Imad Al Hmouz, Amir Molaei, Javad Dargahi	inase-154

### Conference Room: A Time: 13:00-15:00 Special Session CSCC '17: Informatics in Control Theory and its Applications Title: Instrumentation and Measurement Chair: Martin Pospisilik

Immunity of Electronic Devices Against Radio-Frequency Electromagnetic Fields	Hana Urbancokova, Stanislav Kovar, Ondrej Halaska, Jan Valouch	cscc-256
Intensity of EMF Generated by Electronic Safety System Devices	Martin Pospisilik, Eva Vnencakova, Milan Kutaj	cscc-279
CFD Validation by Measurement of Specialized Ventilation Equipments on Duct Tract	Stanislav Sehnalek	cscc-243
Multivariate Study of Spectral Data of Oils	Hana Vaskova, Martina Buckova	cscc-236
Comparison of Two Internationally Recognized Methods for Determining the Sound Absorption Coefficient	Pavel Drabek	cscc-245
Measurement of Four-Pane Building Window Filled with a PCM	Martin Kolacek	cscc-232

### Conference Room: B Time: 13:00-15:00 Special Session CSCC '17: Knowledge Computing and Engineering for Intelligent Decision Support Systems

#### Chair: Abdel-Badeeh M. Salem

Intellectual Capital and Predefined Headings in Swedish Health Care Sector	Annika Terner, Amra Halilovic	cscc-032
Big Data Analytics in the Management of Business	Dorota Jelonek	cscc-229
Results of Implementing ERP System in a Multi-Plant		
Enterprise	Elzbieta Wyslocka	cscc-230
Deployment of SIP in MANET: Challenges and	Salma R. Abdelhamid, Hossam-Eldeen M.	
Circumvention	Shamardan, Atef Z. Ghalwash	cscc-293
Comparative Study of Intelligent Systems for		
Management of GIT Cancers	Nevine Labib, Edward Wadid	cscc-295
Optimized UAV Object Tracking Framework Based on		
Integrated Particle Filter with Ego-Motion	Wesam Askar, Osama Elmowafy, Aliaa	
Transformation Matrix	Youssif, Gamal Elnashar	cscc-301

### Conference Room: C Time: 13:00-15:00 CIVILENG '17: Civil & Industrial Engineering Chair: Ahmed Al-Ashaab, Michal Štrba

Comparative Study of an Optimal Utilization in Case of		
Composite Columns of HSS and HPC	Michal Štrba, Marcela Karmazínová	inase-131
	Myrna Flores, Carles Regué, Ahmed Al-	
Discovering Lean Innovation Good Practices: Three	Ashaab, Stephen Young, Najam Beg, Alan	
Industrial Case Studies in the UK	Harris, Muhd Ikmal I. Bin Mohd Maulana	inase-191
Numerical Simulation of Near Field and Far Field Brine		
Discharge from Desalination Plants (A Case Study in	Ahmad Rezaee Mazyak, Mehdi Shafieefar,	
Persian Gulf)	Alireza Shafieefar	inase-113
Developing a Healthcare Knowledge-Based Framework	A. Iglesia, M. Al-Qassimi, S. Abouali, N.	
to Enhance the Productivity of the Operations of Private	Alqarni, B. Mazouni, A. Waboi, Z. Araci, A.	
Hospitals	Al-Ashaab	inase-184
Probabilistic-Based Design of Bridges Under Multiple		
Hazards: Floods and Earthquakes	K. W. Liaoa, Jessica Gitomarsonoa	inase-127
Traditional Architectural Principles to Use Future		
Residents	Maral Kangavari, Alireza Gharakhani	inase-001
	Muhd Ikmal I. Mohd Maulana, George	
	Sherrey, Ahmed Al-Ashaab, Almudena	
	Jimenez Martin, Kshitij Vats, Oluwaseyi	
Developing Business Case Framework For The	Omoloso, Thomas Masson, Thomas R.	
Introduction Of The Set-Based Concurrent Engineering;	Leigh, Toni Galeote Perramon, Victor	
A Case Study At Jaguar Land Rover	Barroso Moreno, Yucheng Zhang	inase-182
Factors Affecting Small Contractors' Performance in	Borvorn Israngkura Na Ayudhya, Masahiko	
Public Works Projects	Kunishima	inase-011
Development of a Routing Procedure to Assist an Earth		
Systems Model	Josefine Wilms, Marcus Thatcher	inase-145
The Role of Rainwater Harvesting Techniques on		
Preparation of Water Required for Vegetation in Arid	M. T. Dastorani, B. Kouhzad, A. Sepehr, A.	
and Semi-Arid Regions	Talebi	inase-132

#### 15:00-15:30: Coffee Break

### Conference Room: A Time: 15:30-17:30 CSCC '17: Algorithms for Signal Processing Chair: Vairis Shtrauss, Cishen Zhang

	Mudit Shrivastava, Parul Singhai, Prabhat	
A Novel Reconfigurable Mixed-Radix FFT Processor	Patel	cscc-319
Splitting Magnitude Response into Real and Imaginary	Vairis Shtrauss, Aldis Kalpinsh, Uldis	
Parts	Lomanovskis	cscc-062
Finger Shape Computation and Recognition	Ching-Liang Su	cscc-321
A New Stochastic Inner Product Core Design for Digital	Ming Ming Wong, M. L. Dennis Wong,	
FIR Filters	Cishen Zhang, Ismat Hijazin	cscc-221
Extraction of Human Stepping Pattern Using Acceleration	Takayuki Toyohira, Kiminori Sato, Mutsushi	
Sensors	Watanabe	cscc-320
Multidirectional Motion Estimation Algorithm for Frame		
Rate Up-Conversion	Songhyun Yu, Jechang Jeong	cscc-035
Application of Enhanced Hadamard Error Correcting		
Code in Video-Watermarking and his Comparison to		270
Reed-Solomon Code	Andrzej Dziech, Jakob Wassermann	cscc-270
Simulation of Various Cardiac Conduction Phenomena		
with Matlab/Simulink Oscillator Model	Maxim Ryzhii, Elena Ryzhii	cscc-284
	Marios Sfendourakis, Rajagopal Nilavalan,	
Triangulation Positioning System Network	Emmanuel Antonidakis	cscc-358

### Conference Room: B Time: 15:30-17:30 CSCC '17: Applications of Machine Learning Chair: Hyontai Sug, Dimitrios Xanthidis

A Comparative Study of Control Methods for a Robotic Manipulator with Six DOF in Simulation	Georgia P. Smyrnaiou, Michail Papoutsidakis and Dimitrios Tseles	cscc-018
Molecular Dynamics on FPGA Based Accelerated Processing Units	Mihaela Malita, David Mihaita, Gheorghe M. Stefan	cscc-064
Strategies for Improving the Quality of Polling Service in Wireless Metropolitan Area Network	Zhi-Jun Yang, Yang Su, Hong-Wei Ding, Yang-Yang Ding	cscc-211
Using Machine Learning Methods Jointly to Find Better Set of Rules in Data Mining	Hyontai Sug	cscc-114
Fuzzification of Facial Movements to Generate Human- Machine Interfaces in order to Control Robots by XMPP Internet Protocol	Jesús A. Romualdo Ramírez, Enrique Mendéz Franco, and David Tinoco Varela	cscc-219
An Experimental Design To Study Decommitment in a Collaborative Multi-Agent System in a Scheduling Domain	Michele Van Dyne, Costas Tsatsoulis	cscc-285
ICT Developments and Utilization in the Omani Banking Sector	Tareq Alhousary, Jason Underwood, Dimitrios Xanthidis	cscc-315

### Conference Room: C Time: 15:30-17:30 Special Session CSCC '17: 5G Architectures and Networks Chair: George Agapiou

	Helen C. Leligou, Emmanouil	
	Zacharioudakis, Louisa Bouta, Evangelos	
5G Technologies Boosting Efficient Mobile Learning	Niokos	cscc-303
	Ioannis P. Chochliouros, Ioannis	
	Giannoulakis, Anastasia S. Spiliopoulou,	
A Novel Architectural Concept for Enhanced 5G Network	Maria Belesioti, Alexandros Kostopoulos,	
Facilities	Evangelos Sfakianakis	cscc-356
	Velissarios Gezerlis, Maria Belesioti,	
Considerations for IP Interconnection of Power Grid	Tilemachos Doukoglou, Ioannis	
Components	Chochliouros	cscc-355
	Panagiotis Matzoros, Christos Tsirakis,	
Control Framework for Ultra-dense Cellular Networks	George Agapiou	cscc-354
	Emmanouil Zacharioudakis, Helen C.	
Energy Efficiency Tools for Residential Users	Leligou, Aikaterini Papadopoulou	cscc-304
Improving Linearity in Transmitters for 4G and 5G	Milica Bozic, Vassilis S. Kodogiannis, Djuradj	
Networks Using Intelligent Systems	Budimir	cscc-217
	Christos Tsirakis, Panagiotis Matzoros,	
Load Balancing in 5G Networks	Petros Sioutis, George Agapiou	cscc-353
State-of-the-Art on Virtualization and Software Defined		
Networking for Efficient Resource Allocation on Multi-	Christos Tsirakis, Panagiotis Matzoros,	
tenant 5G Networks	George Agapiou	cscc-352
	John Vardakas, Sotirios Papaioannou,	
	George Kalfas, Elli Kartsakli, Angelos	
Evolution of Passive Optical Networks towards High-	Antonopoulos, Nikos Pleros, Christos	
Capacity 5G Fronthaul/backhaul Networks	Verikoukis	cscc-350

### Conference Room: A Time: 17:30-18:00 Plenary Lecture 15:



**Design of Near-Infrared Persistent Phosphors for Bio-Imaging** by Prof. Setsuhisa Tanabe, Kyoto University, Kyoto, JAPAN.

### Conference Room: B Time: 17:30-18:00 Plenary Lecture 16:



Novel Combination Therapeutic Strategies to Enhance Epidermal Growth Factor Inhibitor Efficacy: Mevalonate Pathway Inhibitors and Activators of Cellular Stress as Potential Enhancers

by Prof. Jim Dimitroulakos, University of Ottawa, Ottawa, CANADA.

#### Conference Room: C Time: 17:30-18:00 Plenary Lecture 17:



### Systems Psychopharmacological Approaches in Multifactorial Mental Disorders

by Prof. Peter J. Gebicke-Haerter, Central Institute for Mental Health, Mannheim, GERMANY.

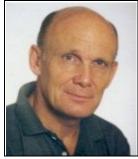
### Conference Room: A Time: 18:00-18:30 Plenary Lecture 18:



A Comprehensive Overview of Advances in Deep Learning Methods, Applications and Trends

by Prof. Dimitrios A. Karras, Sterea Hellas Institute of Technology, Dept. Automation, GREECE.

### Conference Room: B Time: 18:00-18:30 Plenary Lecture 19:



Adaptation and Desadaptation to Ultra-Endurance Athletic Training by Prof. Jaroslav Novak, Institute of Sports Medicine, Medical Faculty of Charles University, Pilsen, CZECH REPUBLIC.

### Conference Room: C Time: 18:00-18:30 Plenary Lecture 20:



Environmental Factor, Carotid Atherosclerosis, Cerebrovascular Disease and Cardiovascular Disease

by Prof. Dafang Chen, Peking University, Beijing, CHINA.

20:00: Conference Banquet

### Conference Room: A Time: 09:00-09:30 Plenary Lecture 21:



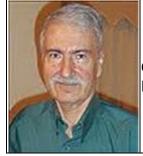
Jet Noise Simulations-Towards Noise Control by Prof. Anastasios Lyrintzis, Embry-Riddle Aeronautical University, Florida, FL, USA.

### Conference Room: B Time: 09:00-09:30 Plenary Lecture 22:



**Robust Copula Dependence Measure and Equitability** by Prof. Adam Ding, Department of Mathematics, Northeastern University, Boston, USA.

Conference Room: C Time: 09:00-09:30 Plenary Lecture 23:



**On Elastic Arterial Blood Flow Systems** by Prof. Daniel N. Riahi, University of Illinois, IL, USA.

### Conference Room: A Time: 09:30-10:00 Plenary Lecture 24:



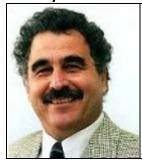
**Survivability Quantification of Wireless Critical Network Systems** by Prof. Peter Stavroulakis, Technical University of Crete, GREECE.

#### Conference Room: B Time: 09:30-10:00 Plenary Lecture 25:



**Use of Fuzzy Numbers for Assessing Human Skills** by Prof. Michael Gr. Voskoglou, School of Technological Applications, Graduate Technological Educational Institute of Western Greece, GREECE.

### Conference Room: C Time: 09:30-10:00 Plenary Lecture 26:



**Regulation of Sperm Capacitation by Actin Modulation** by Prof. Haim Breitbart, Bar-Ilan University, Ramat-Gan, ISRAEL.

### Conference Room: A Time: 10:00-10:30 Plenary Lecture 27:



Nonlinear and Robust Model Predictive Control of Mechatronic Systems Based on Collective Neurodyanmic Optimization by Prof. Jun Wang, Department of Computer Science, City University of Hong Kong, HONG KONG.

### Conference Room: B Time: 10:00-10:30 Plenary Lecture 28:



**Low Carbon Scenarios for Romanian Electricity Sector** by Prof. Mihai Cruceru, Engineering Faculty, University "Constantin Brancusi" of Targu Jiu, Targu Jiu, ROMANIA.

### Conference Room: C Time: 10:00-10:30 Plenary Lecture 29:



The Effects of CNS-Drugs on Driving Ability by Dr. Joris C. Verster, Utrecht University, Utrecht, THE NETHERLANDS.

10:30-11:00: Coffee Break

### Conference Room: A Time: 11:00-13:00 CSCS '17: Applications of Systems Chair: Stepan Bilan, Kamila Kotrasová

Liquid Storage Cylindrical Tank - Earthquake Analysis	Kamila Kotrasová, Eva Kormaníková	cscc-044
Research of the Method of Pseudo-Random Number		
Generation Based on Asynchronous Cellular Automata		
with Several Active Cells	Stepan Bilan, Mykola Bilan, Sergii Bilan	cscc-214
Laminate Circular Cylindrical Shell	Eva Kormaníková, Kamila Kotrasová	cscc-045
An Approach for Estimation of Optimal Energy Flows in		
Battery Storage Devices for Electric Vehicles in the Smart	Gergana Vacheva, Hristiyan Kanchev,	
Grid	Nikolay Hinov, Rad Stanev	cscc-343
	Aitor J. Garrido, Izaskun Garrido, Diego	
State-Space Coil Modelling in Plasma Magnetic	Gonzalez, Odei Molinuevo, Jon Lekube,	
Confinement Devices	Edorta Carrascal	cscc-025
Smart Grid Integration of Small-Scale Trigeneration	Gergana Vacheva, Hristiyan Kanchev,	
Systems	Nikolay Hinov	cscc-339

### Conference Room: B Time: 11:00-13:00 EEDE '17 & CCE '17: Chemical Engineering, Energy and Environment Chair: Mihai Cruceru, Eko Supriyanto

Considerations Regarding the Deterministic Models of Stock Management	Flavius Sarbu	inase-151
Enhancing Conduction Heat Transfer in Phase Change Materials – Graphite Inserts	Bogdan Diaconu, Mihai Cruceru	inase-177
Infectious Hazards of Hospital Staff Exposure Risks and Awareness to Poor Medical Waste Management	Ahmed N. Bdour	inase-134
Mixing in Micro-Scaled Coiled Flow Inverter of Varying Tube Diameter	Joanne Z. E. Soh, Eko Supriyanto	inase-141
Impact of Industrial Consumers on the Operating of Power Plants	A. M. Duinea, C. Bratu	inase-175
Energy Efficient Designs: Cleaner and Greener Energy Technologies, Sustainable Development and		
Environment	Abdeen Mustafa Omer	inase-005
Labour-Entrepreneurship Substitution Mechanism: Determining Growth, Employment and Wage in Nigeria	Chimaobi Valentine Okolo, Ani Afamefuna Jonah	inase-130
Study of the Aromatic Profile of Traminer Rot (Gewürztraminer) by GC-MS	Jiri Sochor, Mojmir Baron, Lenka Sochorova, Michal Kumsta	inase-183

### Conference Room: C Time: 11:00-13:00 MEDICINE: Recent Advances in Medical Sciences Chair: Daniel N. Riahi, David F. Muñoz

-	
Lefkothea Evrenoglou, Aikaterini-Sofia	
Partsinevelou, Thomas Chalastras, Anna-	
Maria Athanassiadou. Polyxeni	
Nicolopoulou-Stamati	60003-100
D. N. Riahi	60001-100
Ioan-Cristian Stoica, Alexandru Drἄghici	60008-100
David F. Muñoz, Olivo O. Zanela	60004-109
Caterina Foti, Angela Grassi, Baldassarre	
Martire, Paolo Romita	60004-106
D. N. Riahi	60001-106
Ioan Cristian Stoica, George Viscopoleanu,	
Ştefan Mogoş, Nedelea Georgiana, Bogdan	
Şendrea, Alexandru Draghici	60008-103
Muhammad Akram	60010-100
Bhawna Chandravanshi, Ramesh Bhonde	60003-103
	Partsinevelou, Thomas Chalastras, Anna- Maria Athanassiadou. Polyxeni Nicolopoulou-Stamati D. N. Riahi Ioan-Cristian Stoica, Alexandru Drăghici David F. Muñoz, Olivo O. Zanela Caterina Foti, Angela Grassi, Baldassarre Martire, Paolo Romita D. N. Riahi Ioan Cristian Stoica, George Viscopoleanu, Ștefan Mogoș, Nedelea Georgiana, Bogdan Șendrea, Alexandru Draghici Muhammad Akram

#### Conference Room: A Time: 13:00-15:00 Special Session CSCC '17: Informatics in Control Theory and its Applications Title: Modeling and Simulation Chair: Ján Piteľ

	Beltran-Prieto Juan Carlos, Kolomaznik	
Catalytic Oxidation Using Nitrous Oxide	Karel	cscc-271
	Beltran-Prieto Juan Carlos, Beltran-Prieto	
Study of Dissolution Process and its Modelling	Luis Antonio	cscc-272
Dividing of Metal and Plastic Components of Printed Circuit Boards	Jiri Krenek, Dagmar Janacova, Ondrej Liska, Vladimir Vasek, Oldrich Suba	cscc-257
The Balance Model for Heat Transport from Hydrolytic Reaction Mixture	Dagmar Janacova, Karel Kolomaznik, Pavel Mokrejs, Vladimir Vasek, Jiri Krenek, Ondrej Liska	cscc-280
Calculation of Shielding Effectiveness of Materials for Security Devices	Stanislav Kovar, Jan Valouch, Hana Urbancokova	cscc-253
An Analytical Dynamic Model of Heat Transfer from the Heating Body to the Heated Room	Jana Mižáková, Ján Piteľ	cscc-264
Steps Towards Modern Trends in District Heating	Lubomir Vasek, Viliam Dolinay	cscc-240
Modeling the Yield of Hydrolysis Process of Leather Shavings	Hana Vaskova, Pavel Kocurek	cscc-246

#### Conference Room: B Time: 13:00-15:00 CSCS '17: Applications of Communications Chair: Roman Plotnikov, Kwantae Cho

Efficient Secret Key Delivery Using Heartbeats	Kwantae Cho, Byungho Chung	cscc-323
Smart Monitoring of Soldier Health and Position	Eman S. E. I-Din, Mostafa Khaled Mohamed	cscc-287
	Roman Plotnikov, Adil Erzin, Vyacheslav	
Convergecast with Unbounded Number of Channels	Zalyubovskiy	cscc-212
Zero-Knowledge Universal Lossless Data Compression	Rodolfo A. Fiorini	cscc-213
Traffic Model for Inter-Provider MPLS-TE	Octavio Jose Salcedo	cscc-003
Traffic Optimization and Monitoring Terminals in Ad-Hoc	Miguel A. Chitiva-Diaz, Octavio J. Salcedo-	
Network through Ant Colony System	Parra, Brayan S. Reyes-Daza	cscc-002
An Efficient Technique for Interference Cancellation in		
Broadcast Channel of Multiuser MIMO System	Dalveer Kaur, Neeraj Kumar	cscc-015
Communication Framework for Tele-rehabilitation	Nikolay Dandanov, Plamen Semov, Antoni	
Systems with QoS Guarantee	Ivanov, Nicole Christoff, Vladimir Poulkov	cscc-342

#### Conference Room: C Time: 13:00-15:00 PMAMCM '17: Mathematics and Computational Methods and Computers Chair: Adam Ding, Michael Gr. Voskoglou

New Results for the a Posteriori Estimates of the Two Dimensional Time Dependent Navier-Stokes Equation	Ghina Nassreddine, Toni Sayah	inase-121
rcd: An R Package for Estimating Robust Copula Dependence	Yi Li, Adam Ding	inase-165
Variations of the Rectangular Fuzzy Assessment Model and Applications to Human Activities	Michael Gr. Voskoglou	inase-155
Online Adaptive Coronary Heart Disease Risk Prediction Model	J. Lam, E. Supriyanto, M. H. Satria, S. Kadiman, A. Azan, A. Soesanto	inase-139
An Absorbing Markov Chain Model for Case – Based Reasoning	Michael Gr. Voskoglou	inase-1167
Use of Popular Science Materials for Teaching Projective Geometry	F. G. Lupiáñez	inase-164
Leading Order Equations and Higher Order Effects in the Water Wave Problem	Georgy I. Burde	inase-128
An Application of Fuzzy Numbers to Assessment of Human Activities	Michael Gr. Voskoglou	inase-152

15:00-15:30: Coffee Break

#### Conference Room: A Time: 15:30-17:30 Special Session CSCC '17: Informatics in Control Theory and its Applications Title: Building Environment and Automation Chair: Martin Zálešák

Effect of Implementation Quadruple Glazing Panel into the Walls on the Airborne Sound Insulation of Building		
Facades	Pavel Drabek	cscc-244
Non-Stationary Behavior of Roof Drainage Systems	Martin Koláček	cscc-286
Validation of New CFD Release by Ground-Coupled Heat		
Transfer Test Cases	Stanislav Sehnalek	cscc-241
The Family House Control System Based on Raspberry Pi	Tomas Sysala, David Fogl, Petr Neumann	cscc-251
The Effect of Blinds on Workplace Illuminance	Jiri Vincenec, Martin Mitas	cscc-238
Thermoelectric Cooling in Combination with		
Photovoltaics and Thermal Energy Storage	Jan Skovajsa, Martin Zálešák	cscc-248
Testing of Method for Assessing of Room Thermal		
Stability	Hana Charvátová, Martin Zálešák	cscc-252

#### Conference Room: B Time: 15:30-17:30 Special Session CSCC '17: Product Lifecycle and Innovation Management Chair: Satya Shah

Evaluation of Sustainable Practices within Project Management Methods	Satya Shah, Elmira Naghi Ganji, Alec Coutroubis	cscc-011
Lean Production Practices to Enhance Organisational Performance	Satya Shah, Elmira Naghi Ganji, Alec Coutroubis	cscc-012
A Preliminary Literature Study of Additive Manufacturing Techniques to Improve Supply Chain Integration	Satya Shah, Stefano Mattiuzza, Elmira Naghi Ganji, Alec Coutroubis	cscc-013
Impact of Sustainable Energy Savings in Nigerian Telecoms Industry	Satya Shah, Olumide Olajide Ojo, Elmira Naghi Ganji, Ahmed Kadry Idris Abdellah	cscc-110
Bridging New Product Development with Sustainable Supply Chain Management Practices	Elmira Naghi Ganji, Satya Shah, Alec Coutroubis	cscc-111

#### Conference Room: C Time: 15:30-17:30 CSCC '17: Software Engineering and Informatics Chair: Han Kyu Lim, Stanislaw Osowski

Design and Implementation of Application for the	ChoulWoo Kim, Dongyun Kim, Hyundo Lee, Hanseong Park, Giung Kwon, Eunju Park,	
Hearing Impaired People	Hankyu Lim	cscc-036
	Juan Diego López, Roberto Osorio, Luis	
	Moreno, Jorge Gomez, Francisco López,	
Crowdsourcing as an IT Help Tool to Determine Impact	Aldo Vilardy, Jairo Gutierrez, Liliana Gomez,	
in the Health Sector	Francisco Veléz	cscc-209
Application of Evolutionary Algorithms for Multiple		
Criteria Decision Support Systems	Ludmil Mikhailov	cscc-231
Software for Assessing the Performance of Anti-	Marius Popescu, Csiki Laszlo, Antoanela	
Plagiarism Programs	Naaji	cscc-019
	Bartosz Swiderski, Jaroslaw Kurek,	
Diagnostic System of Drill Condition in Laminated	Stanislaw Osowski, Michal Kruk, Albina	
Chipboard Drilling Process	Jegorowa	cscc-016
Free and Open Source Chemistry Software in Research		
of Quantitative Structure-Toxicity Relationship of	Vesna Rastija, Dejan Agić, Kristian Brlas,	
Pesticides	Vijay Masand	cscc-010
Two Layer Polyglot Persistence Model for Enterprise		
Search	Juris Rats	cscc-047
Adaptive Algorithm for Solution of Early Exercise		
Boundary Problem of American Put Option Implemented		
in Mathematica	Ladislav Lukáš	cscc-316
Website Clickstream Data Visualization Using Improved		
Markov Chain Modelling in Apache Flume	Amjad Jumaah Frhan	cscc-291

#### Conference Room: A Time: 17:30-19:30 CSCS '17: Applications of Systems in Sciences Chair: Yury Geints, Haffaf Hafid

A New Strategy for PLC Replacement in Industrial		
Automation Problem	Haffaf Hafid, Benani Fatima Zohra	cscc-220
Single Stator Dual PM Rotor Synchronous Machine with Two-Frequency Single-Inverter Control, for the Propulsion of Hybrid Electric Vehicles	Marcel Topor, Fabrizio Marignetti, Sorin Ioan Deaconu, Lucian Nicolae Tutelea	cscc-302
Finite Elements Analysis of Laser-Induced Heat Transfer in a Double-Shell Spherical Nanocapsule	Yury Geints, Alexander Zemlyanov	cscc-006
A Comparative Analysis for Hotel Location Selection: A Case Study for Turkey	Nazli Goker, Mehtap Dursun	cscc-296
The Seismic Retrofitting of an Existing Church	Mariella Diaferio, Dora Foti, Marilena Venerito, Michele Vitti	cscc-361
Zhou Method for the Solutions of System of Proportional Delay Differential Equations	S. O. Edeki, G. O. Akinlabi	cscc-009

#### Conference Room: B Time: 17:30-19:30 CSCS '17: Signal Processing in Health Monitoring of Mechanical Systems Chair: Dora Foti, Claudio Guarnaccia

Acoustic Emissions Analysis of a Four-Point Bending Test on a Reinforced Concrete Beam	Corrado Chisari, Claudio Guarnaccia, Nicola Lamberti, Vincenzo Piluso, Joseph Quartieri, Gianvittorio Rizzano	cscc-330
		1311-330
Control of Framed Structures Using Intelligent Monitoring Networks	Dora Foti, Massimo La Scala, Silvia Lamonaca, Vitantonio Vacca	cscc-326
Experimental Validation Of An Innovative Procedure For	Massimo Viscardi, Pasquale Napolitano,	
The Rolling Noise Correction	Stefano Ferraiuolo	cscc-345
Development of Seasonal ARIMA Models for Traffic	Claudio Guarnaccia, Nikos E. Mastorakis, Joseph Quartieri, Carmine Tepedino,	
Noise Forecasting	Stavros Kaminaris	cscc-329
Specificity in the Optical Excitation Lock-in		
Thermography Results Processing	Anna Stoynova, Borislav Bonev	cscc-349

#### Conference Room: A Time: 09:00-09:30 Plenary Lecture 30:



Studies Regarding the Use of Renewable Energy Sources to Produce Electricity

by Prof. Badea Lepadatescu, Faculty of Technological Engineering and Industrial Management, Transylvania University of Brasov, Brasov, Romania.

#### Conference Room: B Time: 09:00-09:30 Plenary Lecture 31:



**Iterative Learning Control Problems from Rehabilitation Engineering** by Prof. Bijoy Kumar Ghosh, Dick and Martha Brooks Regent Professor of Mathematics and Statistics, Director, Center for Bio Cybernetics and Intelligent Systems, Texas Tech University, Lubbock, TX, USA.

#### Conference Room: C Time: 09:00-09:30 Plenary Lecture 32:



# Deep Learning Can Detect Important Genomic Properties of Tumors from Routine MR Imaging

by Dr. Bradley Erickson, Mayo Clinic, Arizona, AZ USA.

#### Conference Room: A Time: 09:30-10:00 Plenary Lecture 33:



## Novel Optical Properties of Coupled Quantum - Plasmonic Nanostructures

by Prof. Emmanuel Paspalakis, Materials Science Department, School of Natural Sciences, University of Patras, Patras, Greece.

#### Conference Room: B Time: 09:30-10:00 Plenary Lecture 34:



The Design of Resilient and Adaptive Communication Networks with Intrusion Detection, Using Statistical and Artifical Intelligence Methods

by Prof. Demetrios Kazakos, Professor of Mathematics, Texas Southern University, Houston, Texas, TX, USA.

#### Conference Room: C Time: 09:30-10:00 Plenary Lecture 35:



#### Spin Chemistry and Effects of Electromagnetic Fields on Living Organisms

by Prof. Gertz I. Likhtenshtein, Ben-Gurion University of the Negev Beer-Sheva, ISRAEL & Institute of Problems of Chemical Physics, RUSSIA.

10:00-10:30: Coffee Break

#### Conference Room: A Time: 10:30-12:30 Special Session CSCC '17: Informatics in Control Theory and its Applications Title: Materials Science and Technology - Part I Chair: Lenka Hylova

Impact Behaviour of Acrylonitrile-Butadiene-Styrene after Temperature and Humidity Load	Lenka Hylova, Miroslav Manas	cscc-265
Optimization of Fall Height Setting for Drop Weight Tested Polypropylene	Lenka Hylova, Miroslav Manas	cscc-266
The Influence of Regression Curve Parameters of Creep Behaviour on Measured Data Prediction	Martin Reznicek, Janostik Vaclav, Ondrej Bilek	cscc-258
Effect of Pigment Concentration on Mechanical Properties of Polycarbonate	Vaclav Janostik, Vojtech Senkerik	cscc-269
Ultra Nano-Hardness of Surface Layer of Irradiated High–density Polyethylene (HDPE)	David Manas, Jozef Dobransky, Lenka Chvatalova	cscc-261
Mechanical Properties of Surface Layer of Unfilled Polypropylene	David Manas, Jozef Dobransky, Lenka Chvatalova	cscc-262

#### Conference Room: B Time: 10:30-12:30 PMAMCM '17: Applied Mathematics and Statistics Chair: Demetrios Kazakos, Massimo Campanino

The Design of Resilient and Adaptive Communication		
Networks with Intrusion Detection, Using Statistical and		
Artificial Intelligence Methods	Demetrios Kazakos, Nancy L. G. Griesinger	inase-171
A Cluster Expansion for Interacting Spin-Flip Processes	M. Campanino, M. Gianfelice	inase-147
Mean Square Consistency on Numerical Solutions of		
Stochastic Wave Equation with Cubic Nonlinearities on		
2D Rectangles	Haziem M. Hazaimeh	inase-007
A Comparison of Statistical Analysis Methodologies for		
Longitudinal Data Affected by Non-Normal Within-		
Subject Errors	N. Glenn Griesinger, Demetrios Kazakos	inase-178
	Coşkun Kuş, Yunus Akdoğan, Akbar	
Binom-Discrete Lindley Distribution	Asgharzadeh, Ismail Kınacı	inase-179
A Study on Smooth Varieties with Differentially Simple		
Coordinate Rings	Michael Gr. Voskoglou	inase-166

#### Conference Room: C Time: 10:30-12:30 BIOMEDCH '17: Biochemistry and Medical Chemistry Chair: Gertz I. Likhtenshtein, Nigel Aylward

A Prebiotic Surface Catalysed Photochemically Activated		
Synthesis of L-Cystine	Nigel Aylward	60002-118
Spin Chemistry and Radio- and Microwave Radiations		
Effects on Living Organisms	Gertz I. Likhtenshtein	60002-127
Indirect Highly Efficient Cell Therapy by Human Placental		
Cells Secretome for Mitigation Acute Radiation		
Syndrome, Induction of Regeneration of Compromised	Evegenia Volinsky, Astar Hailu, Boaz Adani,	
Bone Marrow and for Tissue Regeneration in Various	Claudia Moresi, Ilana Stav, Myriam	
Inflammatory Conditions	Grunewald, Eli Keshet, Raphael Gorodetsky	60002-121
A Prebiotic Surface Catalysed Photochemically Activated		
Synthesis of L-Methionine and L-Homocysteine	Nigel Aylward	60002-115
Interrelation of Carcinogenic Properties of Chemical		
Compounds with their Electronic and Information		
Factors	Vladimir K. Mukhomorov	60002-124
	K. A. Eshbakova, B. Dj. Komilov, H. A. Aisa,	
Secondry Metabolits of Inula Caspica	N. Dj. Abdullaev	60002-109
Evaluation of Medicine Distribution, Regulatory		
Privatisation, Social Welfare Services and its Alternatives	Abdeen M. Omer	60002-112
	Cristian Predescu, Andra Predescu,	
Influence of Heavy Metals from Biodegradable	Ecaterina Matei, Andrei Berbecaru, Claudia	
Substrates on some Agricultural Plants	Dragan, Cristian Pantilimon	60002-103

#### Conference Room: A Time: 12:30-14:30 Special Session CSCC '17: Informatics in Control Theory and its Applications Title: Materials Science and Technology - Part II Chair: Ales Mizera

Impact Resistance of High-Density Polyethylene Against Falling Penetrator with Different Potential Energy	Ales Mizera, Petr Chalupa, Ivan Hudec	cscc-267
Influence of Fall Height on High Impact Polystyrene		
Deformation and Characteristics of Drop Weight Test	Ales Mizera, Petr Chalupa, Ivan Hudec	cscc-268
Evaluation of Nano-Mechanical Properties and		
Morphology of Filled Polypropylene Modified by	Martin Ovsik, Michal Stanek, Martin	
Irradiation	Reznicek	cscc-259
Influence of Electron Beam Irradiated on the Surface		
Properties of Polyamide Measured by Micro-Indentation	Martin Ovsik, Michal Stanek, Vojtech	
Test	Senkerik	cscc-260
Change of Notch Impact Strength Depending on		
Radiation Dose and Test Temperature	Bednarik Martin, Stoklasek Pavel	cscc-275
Influence of Temperature and Moisture on the		
Mechanical Properties of Irradiated Thermoplastics		
Materials	Stoklasek Pavel, Bednarik Martin	cscc-276

#### Conference Room: B Time: 12:30-14:30 CSCS '17: Applied Mathematics in Systems Chair: Mikhail Matveev, Józef Małecki

Assessment of the Stability of Morphological ECG Features and their Potential for Person Verification/Identification	Mikhail Matveev, Ivaylo Christov, Vessela Krasteva, Giovanni Bortolan, Dimitar Simov, Nikolay Mudrov, Irena Jekova	cscc-023
Design a Fuzzy Control System for Unmanned Surface Vehicle	Józef Małecki	cscc-317
Home Automation and Simulation of Presence in Empty Environments	Israel Marques, Paulo Garcia	cscc-033
Maximum Power Lines of Solar and Wind Generators	S. Kolesnik, A. Kuperman	cscc-228
A Method for Strict Remote User Authentication Using Non - Reversible Galois Field Transformations	Nikolaos G. Bardis, Oleksandr P. Markovskyi, Nikolaos Doukas	cscc-351
Local Fractional Operator on Quadratic Riccati Differential Equation with Variable Coefficients	S.O. Edeki, G.O. Akinlabi, R. Borkor	cscc-014

14:30-15:00: Coffee Break

Notes