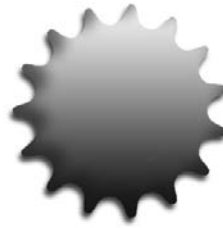


Conference Program



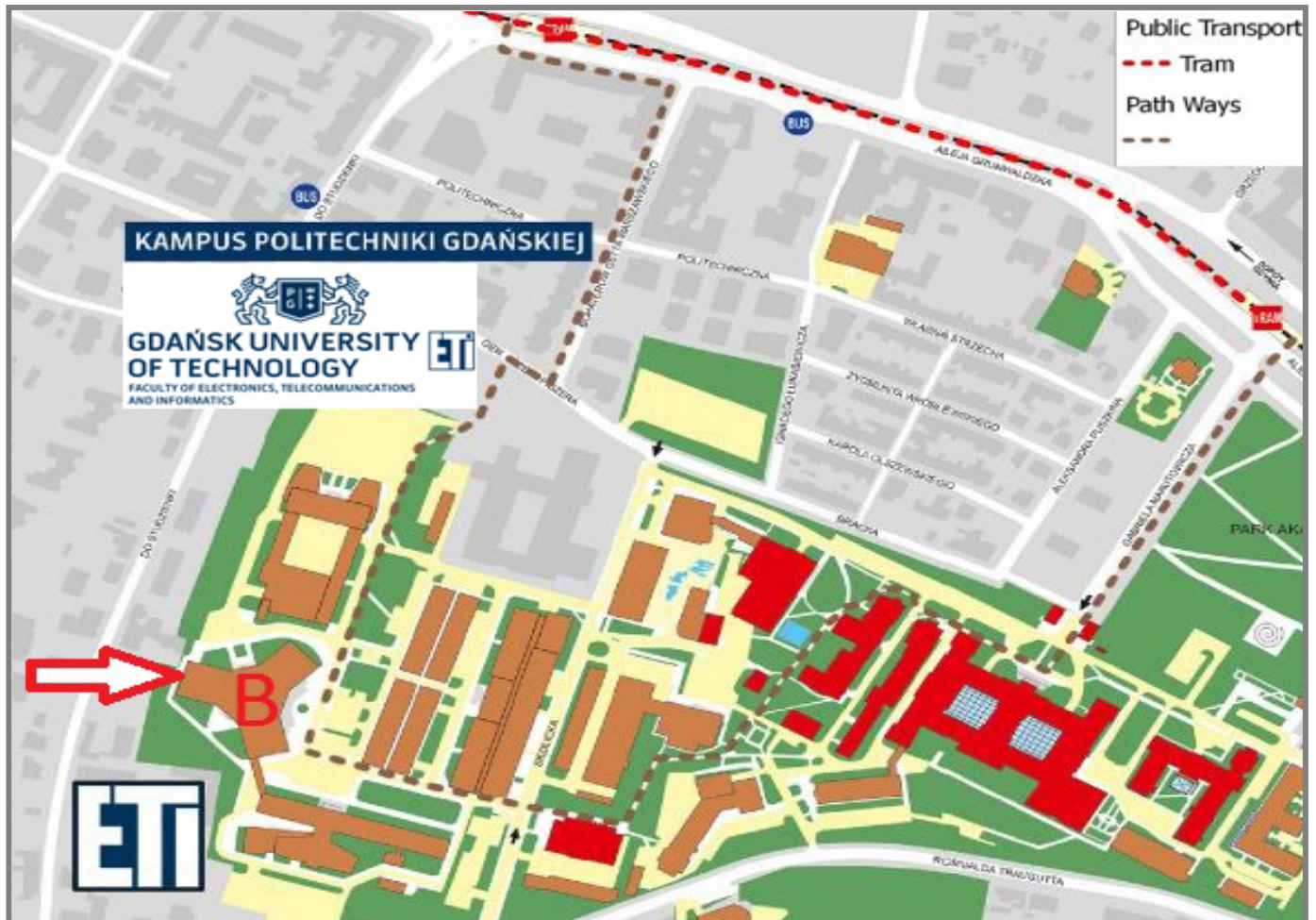
**GDAŃSK UNIVERSITY
OF TECHNOLOGY** 
FACULTY OF ELECTRONICS, TELECOMMUNICATIONS
AND INFORMATICS



**Gdańsk, Poland
May 15-17, 2014**

Conference Location:

Gdansk University of Technology
Faculty of Electronics, Telecommunications and Informatics, Building B
11/12 Gabriela Narutowicza Street,
80-233 Gdansk-Wrzeszcz, Poland



Reception and Conference Rooms Location:

Conference Registration Desk:

Ground Floor @ Faculty of Electronics, Telecommunications and Informatics, Building B

EA 02 Auditorium:

Ground Floor @ Faculty of Electronics, Telecommunications and Informatics, Building B

EA 05 Auditorium:

Ground Floor @ Faculty of Electronics, Telecommunications and Informatics, Building B

EA 308 Class Room:

3rd Floor @ Faculty of Electronics, Telecommunications and Informatics, Building B
(Access by scales or elevator)

15th International Conference on Neural Networks (NN '14)

15th International Conference on Fuzzy Systems (FS '14)

13th International Conference on Artificial Intelligence, Knowledge Engineering and Data Bases (AIKED '14)

13th International Conference on Software Engineering, Parallel and Distributed Systems (SEPADS '14)

7th International Conference on Finite Differences, Finite Elements, Finite Volumes, Boundary Elements (F-and-B '14)

2nd International Conference on Mathematical, Computational and Statistical Sciences (MCSS '14)

5th International Conference on Bioscience and Bioinformatics (ICBB '14)

Important Notes:

- (1) You may register at any time during the conference.
- (2) The Invoice of payment can be collected at the registration desk at any time.
- (3) The Certificate of Participation can be collected at the registration desk only after your presentation.
- (4) Session chairmen can ask for a special Certificate at the registration desk after the session
- (5) The duration of a presentation slot is 20 minutes for a regular paper, 30 minutes for an invited paper and 45 minutes for a plenary speech, including questions. Invited papers are marked in *Italic letters*
- (6) All authors should give their biographies to the chairmen before the beginning of the session.
- (7) Authors can upload their presentations to the available computers 10 minutes before the beginning of their session.

**Gdansk, Poland
May 15-17, 2014**

Dear colleague,

The WSEAS staff welcome you to another prestigious event. Since 1996, the World Scientific and Engineering Academy and Society has proudly organized a vast number of successful conferences and published the work of hundreds of scientists from all over the world. We and our affiliate NAUN would like to express our sincere gratitude to you for helping us continue our mission by honoring us with your presence in this conference.

WSEAS publications have succeeded in joining most important International Scientific Indexes and Libraries. Thanks to our latest efforts of adopting strict deadlines and a more rigorous review process, the quality of our proceedings and journals is continuing to rise exponentially.

We trust that you will enjoy discussing the latest scientific developments with your peers during these three days, and that you will find your stay as pleasant as possible.

The WSEAS Team

Thursday May 15th 2014

Registration: 08:30-09:15

Conference Room: EA 02

Time: 09:15-09:30

Conference Opening:



Welcome Speech

by Prof. Krzysztof Goczyła, Dean of Faculty of Electronics, Telecommunications and Informatics, Gdansk University of Technology, POLAND.

Conference Room: EA 02

Time: 09:30:10:15

Plenary Lecture 1:



Brain Computer Interface (BCI) Using Tensor Decompositions Technology

by Prof. Andrzej Cichocki, Riken, Brain Science Institute, JAPAN.

Conference Room: EA 05

Time: 09:30:10:15

Plenary Lecture 2:



A Reduction of Dimensionalities in Quantum Information Systems through a Combined Spacetime Four-Manifold

by Prof. Gregory L. Light, Providence College, Rhode Island, USA.

Thursday May 15th 2014

Conference Room: EA 308

Time: 09:30:10:15

Plenary Lecture 3:



Nano- and Bio-Structured Materials and Their Photorefractive Features

by Dr. Sci., PhD Natalia V. Kamanina, Vavilov State Optical Institute, RUSSIA.

Conference Room: EA 02

Time: 10:15-11:00

Plenary Lecture 4:



Explicit Finite Element Methods in Modelling of Crushing Process of FRP composite Absorbers

by Dr. Hessam Ghasemnejad, Kingston University, UK.

Conference Room: EA 05

Time: 10:15-11:00

Plenary Lecture 5:



A Hybrid Deterministic/Probabilistic Solver for Modeling of Metal Vapor Transport in Near-Vacuum

by Prof. Anil K. Kulkarni, The Pennsylvania State University, USA.

Thursday May 15th 2014

Coffee Break: 11:00-11:30

Conference Room: EA 02

Time: 11:30-12:15

Plenary Lecture 6:



Migrating Birds Optimization Method and Its Application on Different Areas

by Prof. Mitat Uysal, Dogus University, TURKEY.

Conference Room: EA 05

Time: 11:30-12:15

Plenary Lecture 7:



New Concepts in Assistive Living Technologies

by Prof. Mirjana Bonkovic, University of Split, CROATIA.

Conference Room: EA 308

Time: 11:30-12:15

Plenary Lecture 8:



Quantum-Inspired Multi-Objective Evolutionary Algorithms for Decision Making: Analyzing the State-Of-The-Art

by Assoc. Prof. Jerzy Balicki, Gdansk University of Technology, POLAND.

Thursday May 15th 2014

Conference Room: EA 02

Time: 12:15-13:00

Plenary Lecture 9:

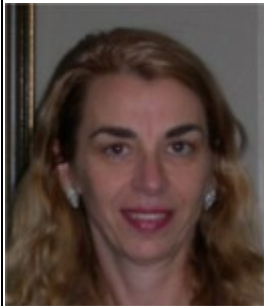


New JIT, New Management Technology Principle
by Prof. Kakuro Amasaka, Aoyama Gakuin University, JAPAN.

Conference Room: EA 05

Time: 12:15-13:00

Plenary Lecture 10:



Wavelet Based Risk Measures
by Prof. Rossitsa Yalamova, University of Lethbridge, CANADA.

Conference Room: EA 308

Time: 12:15-13:00

Plenary Lecture 11:



Big Data Analytics - Searching the Empty Space
by Prof. Wolfgang Benn, Technische Universitat Chemnitz,
GERMANY.

Break: 13:00-13:30

Thursday May 15th 2014

Conference Room: EA 02

Time: 13:30-15:30

MCSS Session: Computational Techniques in Science and Engineering I

Chair: Maria Isabel Garcia-Planas, Takeshi Matsuda

<i>Exploratory Factor Analysis; Concepts and Theory</i>	<i>Hamed Taherdoost, Shamsul Sahibuddin, Neda Jalaliyoon</i>	71606-247
<i>Sufficient conditions for controllability of serial concatenated linear systems</i>	<i>J. L. Dominguez-Garcia, M. I. Garcia-Planas, L. E. Um</i>	71606-217
<i>Spectral synthesis and semi-local rings</i>	<i>Laszlo Szekelyhidi</i>	71606-238
Obtaining Consensus of Multi-agent Linear Dynamic Systems	M. I. Garcia-Planas	71606-214
<i>Some Results On Janowski Convex and Janowski Close-to-Convex Functions</i>	<i>Melike Aydogan</i>	71606-190
<i>Analysis Of The Matrix One-Way Function And Two Variants Of Its Implementation</i>	<i>R. P. Megrelishvili</i>	71606-268
<i>Relevant Backward Inference and Knowledge Verification on the Basis of Equation Solving</i>	<i>Sergey Makhortov, Svetlana Bolotova</i>	71606-118
Mathematical Modeling Based on Algebraic Method	Takeshi Matsuda	71606-262
<i>On a Theory of Fuzzy Numbers and Fuzzy Arithmetic</i>	<i>Yingxu Wang</i>	71606-199

Thursday May 15th 2014

Conference Room: EA 05

Time: 13:30-15:30

AIKED Session: Database Management, Data Mining

Chair: Tomasz Dziubich, Aboubekur Hamdi-Cherif

Accelerometer-based Human Activity Recognition and the Impact of the Sample Size	Adam Harasimowicz, Tomasz Dziubich, Adam Brzeski	71603-136
Fast Algorithm for Contour Approximation & Compression using Spatial Domain Methods	Ali Ukasha	71603-115
Probabilistic Grammatical Inference System for Finite State Automata - The P-GIFSA System	Chafia Kara-Mohamed, Arwa Albelaihi, Muneera Al-Shamri, Re'am Al-Hussan, Aboubekur Hamdi-Cherif	71603-163
<i>Social Systems in Terms of Self-Organized Oscillations and Coherent Order: Conceptual Scope</i>	<i>Darius Plikynas</i>	<i>71603-190</i>
Innovation building	Jelenka Savkovic-Stevanovic	71603-151
Methods of Artificial Intelligence for Prediction and Prevention Crisis Situations in Banking Systems	Jerzy Balicki, Piotr Przybytek, Marcin Zadroga, Marcin Zakidalski	71603-139
Protocol with Hybridized Bluetooth Scatternet Formation for Wireless Network	S. Murugesan, J. Viswanath	71603-106
Pipe Network Analysis for Demand Estimation in Water Distribution Network	Teruji Sekozawa, Kazuaki Masuda, Tomohiro Murata	71603-124

Thursday May 15th 2014

Conference Room: EA 308

Time: 13:30-15:30

ICBB Session: Bioscience and Bioinformatics I

Chair: Natalia Kamanina, Mirjana Bonković

<i>EEG Prognostication Using Coupled Oscillators Energy Exchange Model and Narrow Spectral Bands Superposition Approach</i>	<i>Darius Plikynas, Darius Kezys</i>	<i>71607-115</i>
<i>Speech Processing using Comb Filters on Digital Signal Processor for Sensorineural Hearing Loss</i>	<i>Devendra Sona Chaudhari</i>	<i>71607-121</i>
<i>Linear and non-linear HRV analysis as methods of Cardiovascular risk evaluation in Psoriasis and Overweight</i>	<i>Gianfranco Raimondi , Jacopo M. Legramante, Beatrice Scordamaglia, Ilaria Masci, Giulia Montanari, Riccardo Pampena, Nevena Skroza, Maria Concetta Potenza</i>	<i>71607-118</i>
<i>Bio-Inspired Approach for Developing Advanced Bridges</i>	<i>Kubilay Kaptan</i>	<i>71607-103</i>
<i>Improving the Properties of Cornstarch Based Green Composites Reinforced With Banana Fibers by Incorporating Polycaprolactone for Maxillofacial Bone Plates Fabrication</i>	<i>Lamis R. Darwish, Mahmoud Farag, Mohamed T. El-Wakad, Mohamed Emar</i>	<i>71607-100</i>
<i>Nano- and Bio-Structured Materials and their Photorefractive Features. Part I: organic system</i>	<i>Natalia V. Kamanina, Sergey V. Serov, Alexander A. Kukharchik, Yulia A. Subtsova, Vladislav I. Studeonov, Chantal Andraud</i>	<i>71607-109</i>
<i>A Case of Primary Hydatid cyst of hamstrings muscles of thigh - a rare presentation.</i>	<i>V. T. Mallikarjuna, Anil J. Noolkar</i>	<i>71607-112</i>

Thursday May 15th 2014

Conference Room: EA 02

Time: 15:30-17:30

MCSS Session: Mathematical Modeling in Mechanical Engineering and Mechanics

Chair: Edi Cahyono, Gregory Light

<i>Thermochemical Non-Equilibrium Entry Flows in Mars in Three-Dimensions – Part I – Structured Solutions</i>	<i>Edisson Sávio De Góes Maciel, Amilcar Porto Pimenta, Nikos E. Mastorakis</i>	71606-193
Comparison of Calculated and Measured Ground Thermal Properties	G. Florides, P. Christodoulides, P. Pouloupatis	71606-136
Railway Track: The Transient Solution of the Second Order Differential Equation of Motion and the Acting Loads	Konstantinos Giannakos	71606-232
Predicting Nickel Deposit Based on Data from Drilling Points over Contoured Surface	La Ode Ngkoimani, Edi Cahyono	71606-274
Numerical analysis of MHD stagnation-point flow of Casson fluid, heat and mass transfer over a stretching sheet	Stanford Shateyi, Gerald T. Marewo	71606-139
<i>New Results on Mathematical Modeling of Static and Dynamic Contact Problems of Mechanics via Variational-Hemivariational Inequalities.</i>	<i>Stanislaw Migorski</i>	71606-304
<i>Limitation of classical mechanics and the ways its constraints</i>	<i>Vyacheslav M. Somsikov</i>	71606-121

Thursday May 15th 2014

Conference Room: EA 05

Time: 15:30-17:30

SEPADS Session: Software Engineering and Development I

Chair: Jarosław Kuchta, Jerzy Balicki

Improvement of Power Management System in Electro-Solar Vehicle	Hemza Saidi, Abdelhamid Mudoun	71601-121
Framework Reuse - Heaven or Hell	Jarosław Kuchta	71604-121
Volunteer Computing System Comcute with Smart Scheduler	Jerzy Balicki, Tomasz Bieliński, Waldemar Korłub, Jacek Paluszak	71604-124
Efficiency Evaluation of High Performance Computing Systems Using Data Envelopment Analysis	Paweł L. Kaczmarek	71604-118
Security - Aware Topology Control For Cooperative Wireless Ad-Hoc Network	R. Madhumathi, T. Parameswaran	71604-133
Uncertainty and Bayesian reliability estimations based on failures	Ramin Gholizadeh, Aliakbar M. Shirazi	71604-130
Algebraic Compositions of Action Structures for State-Constraint System Specifications	Susumu Yamasaki	71604-100
Runtime Visualization of Application Progress and Monitoring of a GPU-enabled Parallel Environment	Szymon Bultrowicz, Paweł Czarnul, Paweł Rosciszewski	71604-115

Thursday May 15th 2014

Conference Room: EA 308

Time: 15:30-17:30

NN Session: Advances in Neural Networks I

Chair: Hirofumi Nagashino, Andrzej Cichocki

A Simulation Study of Active Control of Acoustic Noise by Magnetic Resonance Imaging	Hirofumi Nagashino	71601-112
Neural Networks, Support Vector Machine and Genetic Algorithms for Autonomous Underwater Robot Support	Jerzy Balicki, Jan Masiejczyk, Piotr Przybytek, Marcin Zadroga	71601-115
An Improved Recommendation Models on Grade Point Average Prediction and Postgraduate Identification using Data Mining	Kanokwan Watkins	71601-127
Neural rule extraction : more precision in learning	Lasaad Smirani, Jihane Abdelkarim Boulahia	71601-109
Moving Foreground Object Detection And Background Subtraction Using Adaptive-K Gmm: A Survey	P. Rajan, S. Prakash	71601-100
<i>Tracking neural network by mapping neurotransmission</i>	<i>Rajendra Badgaiyan</i>	<i>71601-124</i>

Coffee Break: 17:30-18:00

Conference Room: EA 02

Time: 18:00-20:00

MCSS Session: Mathematical Methods in Business and Economics

Chair: Melike Aydogan, Yingxu Wang

Optimal Penalty Of Insider Trading Driven By Jump-Time Lévy Processes	Celestine Achudume, Anselm Onyekachukwu Oyem	71606-187
Business Process Management and New Technologies	S. González Pérez, E. Alenina, V. Grigorenko	71606-286
<i>Multivariate stochastic dominance among different financial markets</i>	<i>Sergio Ortobelli Lozza, Filomena Petronio, Tomas Tichy</i>	<i>71606-265</i>
<i>Portfolio problems based on returns consistent with the investor's preferences</i>	<i>Sergio Ortobelli Lozza, Filomena Petronio, Tommaso Lando</i>	<i>71606-271</i>
Divergence Measures and Weak Majorization in Estimation Problems	Tommaso Lando, Lucio Bertoli-Barsotti	71606-295

Thursday May 15th 2014

Conference Room: EA 05

Time: 18:00-20:00

AIKED Session: Knowledge Engineering and Databases

Chair: Wolfgang Benn, Tomasz Boński

Reverse Abstraction of Database Drivers	Alexander Adam, Sebastian Leuth, Wolfgang Benn	71603-175
Studying Interaction Dynamics of Chaotic Systems Within a Non-linear Prediction Method: Application to Neurophysiology	Alexander V. Glushkov, Olga Yu. Khetselius, Svetlana V. Brusentseva, Pavel A. Zaichko, Valentin B. Ternovsky	71603-196
Reengineering HR Appraisal Legacy System To Bi Platform	Ghazi Alkhatib	71603-157
The Improvement of Reinforcement Learning with the Meta-Heuristic Search in Ant Colony Optimization	Hui Zhu, N. E. Mastorakis	71603-142
How Specific Can We Be with k-NN Classifier?	Karol Draszawka, Julian Szymanski	71603-133
Knowledge Transformation Using Ontology & Boeing Experiment	M. S. J. Praveena, M. S. S. Kavitha	71603-100
<i>Fast Algorithms for Mining Periodic Patterns</i>	<i>Marcin Zimniak, Wolfgang Benn, Janusz R. Getta</i>	<i>71603-169</i>
Knowledge Base Suitable for Answering Questions in Natural Language	Tomasz Boinski, Adrian Ambrozewicz, Julian Szymanski	71603-130
The Dielectric Electro Active Polymer Actuator Modeling using Multidisciplinary methods	Yousef Iskandarani	71603-118

Conference Room: EA 308

Time: 18:00-20:00

F-and-B Session: Finite Elements and Boundary Elements I

Chair: Temur Jangveladze, Hessam Ghasemnejad

On finite difference approximations for solving some problems of mathematical physics with periodical boundary conditions	Harijs Kalis, Ojars Lietuvietis	71605-103
<i>Low Velocity Impact Analysis Of Automobile Frontal Beams Using Fea</i>	<i>J. Janci Rani, S. Jeyanthi</i>	<i>71605-109</i>
Some Properties and Numerical Solution of One-Dimensional Nonlinear Electromagnetic Diffusion System	Temur Jangveladze	71605-112
Semi-discrete Scheme for One Nonlinear Integro-Differential System Describing Diffusion Process of Electromagnetic Field	Temur Jangveladze, Zurab Kiguradze	71605-115
Solving inverse problems by connection of level set method, gradient technique and finite or boundary elements	Tomasz Rymarczyk, Jan Sikora	71605-106

Friday May 16th 2014

Conference Room: EA 02

Time: 09:00-09:45

Plenary Lecture 12:



Detection of Changes in Dependent Processes: Learning from Algorithms, Simulations and Stochastic Inference

by Prof. Ansgar Steland, RWTH Aachen University, GERMANY.

Conference Room: EA 05

Time: 09:00-09:45

Plenary Lecture 13:



Science and Technology in Biomedical Engineering: LaBACS Case Example

by Assoc. Prof. Tamara Grujic, University of Split, CROATIA.

Conference Room: EA 308

Time: 09:00-09:45

Plenary Lecture 14:



Metatheory of Tableau Systems

by Prof. Tomasz Jarmuzek, Nicolaus Copernicus University, POLAND.

Friday May 16th 2014

Conference Room: EA 02

Time: 09:45-10:30

Plenary Lecture 15:



Equitability and Dependence Measures

by Prof. Adam Ding, Northeastern University, Boston, USA.

Conference Room: EA 05

Time: 09:45-10:30

Plenary Lecture 16:



**Modern Parallel Computing Using Heterogeneous Systems
with Multicore CPUs and Accelerators**

by Assis. Prof. Pawel Czarnul, Gdansk University of Technology,
POLAND.

Conference Room: EA 308

Time: 09:45-10:30

Plenary Lecture 17:



Mathematical Modeling from Algebraic Viewpoint

by Prof. Takeshi Matsuda, Shizuoka Institute of Science and
Technology, JAPAN.

Coffee Break: 10:30-11:00

Friday May 16th 2014

Conference Room: EA 02

Time: 11:00-11:45

Plenary Lecture 18:



A Tribute to Sylvester: “Chemicographic” Representation of the Graph Matching Polynomial

by Prof. Remi Chauvin, Toulouse 3-Paul Sabatier University, FRANCE.

Conference Room: EA 05

Time: 11:00-11:45

Plenary Lecture 19:



Analysis of the Disturbance Decoupling Problem for Singular Switched Linear Systems Via Feedback and Output Injection

by Prof. Maria Isabel Garcia-Planas, Universitat Politecnica de Catalunya, SPAIN.

Conference Room: EA 308

Time: 11:00-11:45

Plenary Lecture 20:



Finite Difference and Finite Element Approximations for One Nonlinear Partial Integro-Differential Equation

by Prof. Temur Jangveladze, Caucasus University, GEORGIA.

Friday May 16th 2014

Conference Room: EA 02

Time: 11:45-12:30

Plenary Lecture 21:



Langlands Program, Related Representation and Applications
by Professor Nikolaj Glazunov, National Aviation University,
UKRAINE.

Conference Room: EA 05

Time: 11:45-12:30

Plenary Lecture 22:



**Making an Analogy between a Multi Chain Interaction in CDW
Transport and Wave Functionals to Form S-S' Pairs**
by Professor A. W. Beckwith, Chongqing University, P. R.
CHINA.

Conference Room: EA 308

Time: 11:45-12:30

Plenary Lecture 23:



**Efficient Evaluation of Sparse Jacobians by Matrix
Compression**
by Prof. Andreas Griewank, Humboldt-Universitat zu Berlin,
GERMANY.

Friday May 16th 2014

Conference Room: EA 02

Time: 12:30-14:30

MCSS Session: Computational Techniques in Science and Engineering II

Chair: Aidong Adam Ding, Andreas Griewank

Association Parameters Regression for Bivariate Failure-Time Data	A. Adam Ding, Jin-Jian Hsieh, Weijing Wang	71606-175
<i>Optimal Reinsurance with Uncertainty and Linear Premium Principle</i>	<i>Alejandro Balbás, Beatriz Balbás, Raquel Balbás</i>	<i>71606-250</i>
Efficient Evaluation of Sparse Jacobians by Matrix Compression, Part I: Motivation and Theory	Andreas Griewank, Nikolai Strogies	71606-313
Detection of changes in dependent processes: Learning from algorithms, simulations and stochastic inference	Ansgar Steland	71606-277
Application of Ant Colony Optimization metaheuristic in flowshop scheduling domains	Arshad Mehmood Ch., Riaz Ahmad, Imran Ali Ch., Fawad Jadoon	71606-103
<i>A comparative study on principal component analysis and factor analysis for the formation of association rule in data mining domain</i>	<i>Dharmpal Singh, J. Pal Choudhary, Malika De</i>	<i>71606-163</i>
An application of the hybrid method of multistep type	G. Mehdiyeva, V. Ibrahimov, M. Imanova	71606-226
Some application of the hybrid methods to solving Volterra integral equations	G. Mehdiyeva, V.Ibrahimov, M. Imanova	71606-229
Quantum-inspired Multi-objective Evolutionary Algorithms for Decision Making: Analyzing the State-Of-The-Art	Jerzy Balicki	71606-115

Friday May 16th 2014

Conference Room: EA 05

Time: 12:30-14:30

AIKED Session: Simulation and Modelling

Chair: Natalia Kamanina, Shuliang Li

Chaos-Geometric Attractor and Quantum Neural Networks Approach to Simulation Chaotic Evolutionary Dynamics During Perception Process	Alexander V. Glushkov, Andrey A. Svinarenko, Vasily V. Buyadzhi, Valentin B. Ternovsky, Pavel A. Zaichko	71603-199
Multi Robot Traffic Planing using ACO	Anupam Shukla, Sanyam Agarwal	71603-184
<i>A Predictive Tableaux Visual Analytics</i>	<i>Cyrus F. Nourani</i>	<i>71603-172</i>
Discussion Summarization Based On Cross-Document Relation Using Model Selection Technique	Ibrahim Almahy, Naomie Salim, Yogan Jaya Kumar, Ameer Tawfik	71603-193
Nano- and Bio-Structured Materials and their Photorefractive Features. Part II: inorganic system	Natalia V. Kamanina, Pavel V. Kuzhakov, Alexander A. Kukharchik, Patrice Baldeck, Chantal Andraud	71603-187
Robotics Helicopter Control and its Applications in Engineering	P. V. L. Narayana Rao, Jemal Ahmed Andeta, Habte Lejebo Leka, Abraham Assefa Simmani, Pothireddy Siva Abhilash	71603-205
The innovation network as a complex adaptive system: flexible multi-agent-based modelling, simulation and evolutionary decision making	Qingqi Long, Shuliang Li	71603-121
Web & social media dynamics, and evolutionary and adaptive branding: theories and a hybrid intelligent model	Shuliang Li, Jim Zheng Li	71603-178

Friday May 16th 2014

Conference Room: EA 308

Time: 12:30-14:30

SEPADS Session: Software Engineering and Development II

Chair: Benmammour Badr, Mariusz Matuszek

Taxonomy of Usability Requirements for Ageing	Maria Salama, Ahmed Shawish	71604-109
A Model-Driven Solution for Development of Multimedia Stream Processing Applications	Anna Bobkowska, Michał Nykiel, Jerzy Proficz	71604-139
Game theory applications in wireless networks: A survey	Badr Benmammour, Francine Krief	71604-127
Crowdsourcing and Volunteer Computing as Distributed Approach for Problem Solving	Jerzy Balicki, Piotr Brudło, Piotr Szpryngier	71604-136
<i>Paradigm in Education: from traditional to 3.0 Environment</i>	<i>Juhaida Abdul Aziz, Parilah M. Shah, Rosseni Din, Rashidah Rahamat, Helmi Norman, Jai Shree Ap Bipinchandra</i>	71607-106
Towards achieving discernment and correlation in cloud logging	M. Lemoudden, N. Ben Bouazza, B. El Ouahidi, D. Bourget	71604-151
A Human Behaviour Model Agent for Testing of Voluntary Computing Systems	Mariusz Matuszek	71604-145
Performance Modeling and Prediction of Real Application Workload in a Volunteer-based System	Pawel Czarnul, Mariusz Matuszek	71604-154
<i>Variable Bounds Analysis of a Climate Model Using Software Verification Techniques</i>	<i>Peter Revesz, Robert Woodward</i>	71604-160
Architecting Passive Optical LANs for the Corporate-Wide Enterprise	Stanislav Milanovic, Nikos E. Mastorakis	71604-148

Coffee Break: 14:30-15:00

Friday May 16th 2014

Conference Room: EA 02

Time: 15:00-17:00

MCSS Session: Mathematical Modelling in Physics

Chair: Andrew Beckwith, Jacob Manale

How graviton power values and a graviton count from the electroweak era give strain and heavy gravity values	Andrew Walcott Beckwith	71606-148
Does Temperature Quenching in the early Universe exist in part due to Particle Production?	Andrew Walcott Beckwith	71606-154
Vacuum Energy And Extension To Machian Space-Time Physics By Linkage Of Gravitons (Today) With Gravitinos (Ew Era) As Answer To Volovik's Vacuum Energy, Myths And Reality Document Questions	Andrew Walcott Beckwith	71606-160
<i>Alternative Lie type one-parameter point symmetries, with application to gravity related radiation</i>	<i>Jacob Manale</i>	<i>71606-142</i>
Using gravity model in regional rail transport planning	Vít Janoš	71606-316
<i>Computational Modeling for Acoustic Wave Propagation in a Layered Media</i>	<i>Ray R. Zhang, Aalhamid Alamin</i>	<i>71606-259</i>

Conference Room: EA 05

Time: 15:00-17:00

FS Session: Advances in Fuzzy Systems

Chair: Anca Croitoru, Tomasz Jarmuzek

Design and Implementation of PI and PIFL Controllers for Continuous Stirred Tank Reactor System	A. Albagul, M. Saad, Y. Abujeela	71602-106
Scalar and vector fuzzy integrals for vector multifunctions	Cristina Stamate, Anca Croitoru	71602-103
Hazard recognition and isolating	Jelenka Savkovic-Stevanovic	71602-118
Fixed Point of Generalized Eventual Cyclic Gross in Fuzzy Norm Spaces for Contractive Mappings	S. A. M. Mohsenialhosseini	71602-109
Intrusion Detection using Fuzzy Clustering and Artificial Neural Network	Shraddha Surana	71602-115

Friday May 16th 2014

Conference Room: EA 308

Time: 15:00-17:00

F-and-B Session: Finite Elements and Boundary Elements II

Chair: Hessam Ghasemnejad, Temur Jangveladze

<i>Finite Element Evaluation of the Plastic Radius Size at the Crack Tip Using the EPFM Approach</i>	<i>Francesco Caputo, Alessandro De Luca, Giuseppe Lamanna, Alessandro Soprano</i>	<i>71605-127</i>
<i>Large Eddy Simulation of Non-Reactive Flow in a Pulse Detonation Chamber</i>	<i>Ionut Porumbel, Tudor Cuciuc, Cleopatra Florentina Cuciumita, Constantin Eusebiu Hritcu, Florin Gabriel Florean</i>	<i>71605-124</i>
<i>On Integro-Differential Splines Construction</i>	<i>Irina Burova</i>	<i>71605-121</i>
<i>Finite element method applied for the evaluation of teeth restored with custom made post-and-core systems</i>	<i>Liliana Porojan, Florin Topală, Sorin Porojan</i>	<i>71605-118</i>
Mixed finite element method for linear elasticity in a cracked domain	M. A. Bennani, Abdeslam El Akkad, Ahmed Elkhalfi	71605-100

Conference Banquet: 18:00

“Beaufort Ballroom”

Ground Floor, Hilton Gdansk

Address: Targ Rybny 1, Srodmiescie, 80-838 Gdansk

Phone: +48 58 77 87 342

Saturday May 17th 2014

Conference Room: EA 02

Time: 09:15-10:00

Plenary Lecture 24:



Kinetics of Structural Transformations in Nano-Structured Intermetallics: Atomistic Simulations

by Prof. Rafal Kozubski, Jagiellonian University in Krakow, POLAND.

Conference Room: EA 05

Time: 09:15-10:00

Plenary Lecture 25:



Linear Relation of Signals with Shifting: An Application in Finance

by Professor Edi Cahyono, University of Halu Oleo, INDONESIA.

Conference Room: EA 308

Time: 09:15-10:00

Plenary Lecture 26:



Directions of Soft Computing Techniques in Internet of Things

by Prof. Sung-Bae Cho, Yonsei University, KOREA.

Saturday May 17th 2014

Conference Room: EA 02

Time: 10:00-12:00

MCSS Session: Mathematical Modelling in Environmental Sciences

Chair: Milad Asgarpour Khansary, Jerzy Balicki

<i>Parametric study of hygrothermal behaviour of a hemp concrete wall</i>	<i>A. D. Tran Le, C. Maalouf, O. Douzane, L. Lahoche, T. H. Mai, T. Langlet</i>	71606-244
LES Simulation of the Tree Alley Impact on Air-Pollution Dispersion and Thermal Conditions in the Urban Street Canyon	Josef Brechler, Vladimir Fuka	71606-235
<i>Using Artificial Neural Network for Prediction of Red and Blue Dyes in Supercritical Carbon Dioxide</i>	<i>Milad Asgarpour Khansary, Nikos Mastorakis</i>	71606-310
<i>Mathematical Model of Factors Influencing the Consumption of Brown Sugar in Southeast Sulawesi</i>	<i>Usman Rianse, Abdi, Ilma Sarimustaqyima Rianse, Wa Kuasa, Weka Gusmiarty Abdullah</i>	71606-292
Asymptotic Statistical Model Building Based on the Partial Sums of the Residuals of the Observations with an Application to Mining Industry	Wayan Somayasa, Ruslan, Edi Cahyono	71606-241
Analysis Of Correlation Between Brown Sugar Attributes and The Consumer Preferences	Weka Gusmiarty Abdullah, Usman Rianse, Raden Marsuki Iswandi, Raden Marsuki Iswandi, Sitti Aida Adha Taridala, Wa Kuasa Baka, Ilma Sarimustaqyima Rianse, Zulfikar La Zulfikar, Weka Widayati, La Rianda Baka, Abdi La Abdi	71606-289

Conference Room: EA 05

Time: 10:00-12:00

AIKED Session: Image, Sound and Signal Processing

Chair: Anca Croitoru, Jinho Kim

Image Reduction Based On RGB Common Color Lattices	D. Jeyamani, M. Kalaimani	71603-103
Degraded Number Plate Image Recognition for CCTV Surveillance	Jinho Kim	71603-148
Disguised Face Identification Based Gabor Feature and SVM Classifier	Kyekyung Kim, Sangseung Kang, Yun Koo Chung, Sooyoung Chi	71603-127
A Multi-sensory Service System using Modular Dynamic Bayesian Networks and Utility Function	Kyon-Mo Yang, Sung-Bae Cho	71603-166
Speech Recognition Based on SIMD Parallel Optimization	Lina You, Lu Liu, N. E. Mastorakis, Xiaodong Zhuang	71603-154
The impact of GOP pattern and packet loss on the video quality of H.264/AVC compression standard	Miroslav Uhrina, Jaroslav Frnda, Lukáš Ševčík, Martin Vaculík	71603-181

Saturday May 17th 2014

Conference Room: EA 308

Time: 10:00-12:00

ICBB Session: Bioscience and Bioinformatics II

Chair: Mirjana Bonkovic, Tamara Grujic

<i>Malaysian Psychometric Test of Creativity and Innovation</i>	<i>Ayesha Badib</i>	<i>71607-136</i>
<i>Signal Analysis from Wireless ECG System</i>	<i>Denis Kolev, Mikhail Suvorov, Dmitry Kangin, Evgeniy Morozov, Vladimir Dudnik, Kirill Bushminkin</i>	<i>71607-124</i>
<i>Cellulose Micro/Nano fibers (CMNF) from Bioresources in Malaysia</i>	<i>Fauziah Abdul Aziz, Ariffin Ismail, Wan Md Zin Wan Yunus, Norazman Mohamad Nor, Risby Mohd Sohaimi, Ahmad Zaidi Sulaiman, Norhana Abdul Halim, Dian Darina Indah Daruis, Noriean Azraaie, Nurul Aimi Mohd Zainul Abidin, Nur Ain Ibrahim, Nur Amira Mamat Razali</i>	<i>71607-130</i>
<i>The Aging process in principal component analysis of posturographic signals</i>	<i>Krzysztof Piotr Michalak, Anna Przekoracka-Krawczyk, Paweł Nawrot, Piotr Woźniak, Peter Vieregge</i>	<i>71607-145</i>
<i>High-tech life accompany devices: how meaningful are they used?</i>	<i>Mirjana Bonković, Ana Kuzmanić, Tamara Grujić</i>	<i>71607-139</i>
<i>Effect of Various Growth Mediums on the Germination and Growth of Jatropha curcas</i>	<i>Sadia Iqbal, Nikos Mastorakis</i>	<i>71607-142</i>
<i>Biomedical Engineering in Practice: Human Motion Tracking, Detection and Analysis</i>	<i>Tamara Grujic, Ivo Stancic, Mirjana Bonkovic</i>	<i>71607-133</i>

Coffee Break: 12:00-12:30

Conference Room: EA 02

Time: 12:30-14:30

MCSS Session: Mathematical Modelling in Electrical Engineering

Chair: Rafal Kozubski, Edi Cahyono

<i>Resource Allocation for IEEE 802.22 based Cognitive Radio Network via Look-ahead Prediction</i>	<i>Alia Asheralieva, Kaushik Mahata</i>	<i>71606-208</i>
<i>Multiresolution analysis of magnetic field produced by high voltage powerlines</i>	<i>Luigi Maxmilian Caligiuri, Francesco Lamonaca, Alfonso Nastro, Monica Vasile</i>	<i>71606-124</i>
<i>Diagnosis of Induction Motor Rotor Fault through Discrete Wavelet Transform Applied to Residual Current</i>	<i>Nabil Ngote, Said Guedira, Mohamed Cherkaoui, Mohammed Ouassaid</i>	<i>71606-220</i>
<i>Optimal Control Problem with State-control Constraints</i>	<i>Vasiliy Dikusar, Sergey Zasukhin</i>	<i>71606-301</i>

Saturday May 17th 2014

Conference Room: EA 05

Time: 12:30-14:30

MCSS Session: Mathematical Modelling in Bioscience and Bioengineering

Chair: Rossitsa Yalamova, Natalia V. Kamanina

Bio-Inspired Fuzzy Expert system for Mining Big data	A. Senthil Karthick Kumar, M. Thangamani, A. M. J. Mohamed Zubair Rahman	71606-112
<i>Multi-layer Perceptron-Biogeography Based Optimization and Artificial Immune System Methods</i>	<i>A. Serrat, M. Benyettou</i>	71606-298
Protein Structure Prediction as a Data Science Process	Borys Biletskyy	71606-253
DIAGNOSTIC MEASUREMENTS OF HUMAN BONE AFFECTED BY PRIMARY GONARTROSIS	Luigi Maxmilian Caligiuri, Francesco Lamonaca, Alfonso Nastro, Monica Vasile	71606-127
<i>Enhancement of speech signal based on application of the Maximum a Posterior Estimator of Magnitude-Squared Spectrum in Stationary Bionic Wavelet Domain</i>	<i>Mourad Talbi, Anis Ben Aicha</i>	71606-172

Conference Room: EA 308

Time: 12:30-14:30

NN Session: Advances in Neural Networks II

Chair: Hirofumi Nagashino, Vladimir Tumanov

GA Assisted DFE-ANFIS Framework for Stochastic MIMO Channel Modeling	Kandarpa Kumar Sarma, Nikos Mastorakis	71601-145
Assessment of Maximum Explosive Charge Used Per Delay in Surface Mines	Manoj Khandelwal, Nikos Mastorakis	71601-142
<i>Using Artificial Neural Networks for the construction of contour maps of thermal conductivity</i>	<i>Soteris A. Kalogirou, Paul Christodoulides, Georgios A. Florides, Panayiotis D. Pouloupatis, Iosifina Iosif-Stylianou</i>	71601-133
A Multilayer Neural Network for Classification of Frequency Information Dominant Patterns	Tan Loc Nguyen, Jung-Ja Kim, Yonggwon Won	71601-136
Hybrid algorithm of application of artificial neuronets for an evaluation of rate constants of radical bimolecular reactions	V. E. Tumanov	71601-139

Coffee Break: 14:30-15:00

Saturday May 17th 2014


Conference Room: EA 02

Time: 15:00-17:00

MCSS Session: Mathematical Modelling in Information Science

Chair: Hessam Ghasemnejad, Anil K. Kulkarni

Simulation Techniques for Better Software Development in Dynamic Changes of Global Society	Milena Janakova	71606-307
<i>DoS Detection on SDN Architectures Using Parametric Statistical Tests</i>	<i>Paulo Pinto, Luis Pinto</i>	71606-280
<i>Compress Data Hiding using Pixel Pair Differencing Technique</i>	<i>Reena M. Patel, Dharmesh J. Shah</i>	71606-205
<i>Image Features Extraction Using The Dual-Tree Complex Wavelet Transform</i>	<i>Stella Vetova, Ivan Ivanov</i>	71606-283
Image Fusion Based on Variational Decomposition	Yongping Zhang, Zhongkun He, Dechun Zheng	71606-196



Gdansk, Poland
May 15-17, 2014