Conference Program

London, UK
February 22-23, 2020

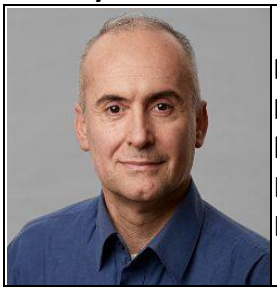
Conference Location:

Radisson Blu Edwardian Vanderbilt Hotel
68-86 Cromwell Road, London, SW7 5BT, UK
https://www.radissonhotels.com/en-us/hotels/radisson-blu-edwardian-london-vanderbilt

Saturday 22nd February 2020

Conference Room: A
Time: 08:45-09:00
Welcome and opening speech

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



Development of Control Strategies for an Ice Clamping Device in Industrial Applications
by Professor Paolo Mercorelli
Institute of Product and Process Innovation - PPI,
Leuphana University of Lueneburg, Lüneburg, GERMANY.

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

Flow Properties of Al2O3 Ceramic Injection Moulding Feedstocks - Rheological Characterization using Master Flow Description
by Professor Petr Filip
Institute of Hydrodynamics,
Czech Academy of Sciences Pod Patankou,
Prague, CZECH REPUBLIC.

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

Improvement of Environmental Protection by Complex Coal Ash Recycling
by Professor Cruceru Mihai
Constantin Brâncuci University,
Târgu Jiu, ROMANIA.

10:30-11:00: Coffee Break

Saturday 22nd February 2020

Conference Room: A
Time: 11:00-13:00
Title: Energy Systems and Environment and Urban Planning
Chair: Mihai Cruceru, Miguel Felgueiras

Analysis of Energy Balance for a Steel Electric Arc Furnace	Bogdan Diaconu, Lucica Anghelescu, Mihai Cruceru
Integrated Management of Water Resources and Environment in the Transboundary Rivers Basins of Central Asia	Parviz Normatov, Inom Normatov, Qodirjon Odinaev
Towards a Sustainable Waterfront Development" Case Study of Port Said City"	Shimaa M. Ali, Amro N. Mohamed, Nourhan El Sohafi
Alternative Heavy Tailed Models in Seismology	Miguel Felgueiras, João Martins, Rui Santos
An Integrative Process and Technology for Reclamation of Ash Landfill with Complete Recycling of Ash	Mihai Cruceru, Lucica Anghelescu, Bogdan Diaconu
Improving Smart Cycling Mobility through Short-Range Technologies: The SAVE-MY-BIKE Research Project	Antonio Pratelli, Massimilianno Petri, Alessandro Farina, Paolo Nepa, Vittorio Franchina, Reginald R. Souleyrette
Wavelet Transform and Deep Learnig approach to Predict Physico Chemical Parameters of Water	Hieda Adriana Nascimento Silva, Paola G. Vinueza Naranjo, Lena Patricia Souza Rodrigues, Diovanni Moraes de Araujo

Saturday 22nd February 2020

Conference Room: A
Time: 13:00-15:00
Title: Mathematical Models in Economical Sciences
Chair: Paolo Mercorelli

A Stabilizing Control Strategy for a Bank System using State Space and Sliding Mode Control approach with an Extended Kalman Filter	Helge Ronald Samson, Paolo Mercorelli
Estimation of Prevalence in Rare Disease using Pooled Samples	Joao Martins, Rui Santos, Miguel Felgueiras
Current Issues of Stability of Nonlinear Economic Systems	Y. S. Alikhanli
Modeling the Amount of Cash in Circulation in a Country using Linear Multiple Regression	Marina Batova
Analysis of Financial Network Topological Dynamics of the Russian Stock Market from 2012 to 2019	Vladimir Balash, Alfia Chekmareva, Alexey Faizliev, Alexey Grigoriev, Sergei Sidorov
Euclidean Jordan Algebras and Inequalities over the Spectrum of a Strongly Regular Graph	Luís Vieira
Comparative Analysis of Innovation Diusion Models: Empirical Results and Predictive Performance on Russian Mobile Phone Propagation Data	Vladimir Balash, Olga Balash, Alexey Faizliev, Maria Krylova, Sergei Sidorov

15:00-15:30: Coffee Break

Saturday 22nd February 2020

Conference Room: A
Time: 15:30-17:30
Title: Mathematical Methods and Techniques in Engineering and Sciences
Chair: Mehriban Imanova, Fatima Guliyeva

Mathematical Model of High Tech Enterprise Manufacturing Subdivisions Production Plan Optimization	Marina Batova, Irina Baranova, Vyacheslav Baranov
Relationship Between an Atomic Decomposition of Double and Unary Systems in Grand-lebesgue Spaces	Fatima Guliyeva
On Some Comparison of Multistep Second Derivative Methods With the Multistep Hybrid Methods and Their Application to Solve Integro-differiential Equations	Galina Mehdiyeva, Vagif Ibrahimov, Mehriban Imanova
Theoritical Models of the Thermal Conductivity of Polyamide12 during Selective Laser Sintering Process	H. Yaagoubi, H. Abouchadi, M. Taha Janan
Formalism of Biological Tissues/nanowire Sensor Interface Behavior	Marwa Sawan, Hilal Reda, Nadine Saad, Sun Bin, Georges Nassar
On the Comparison of Gauss and Hybrid Methods and their Application to Calculation of Definite Integrals	M. N. Imanova
Self-Identification Deep Learning ARIMA	Paisit Khanarsa, Krung Sinapiromsaran, Arthorn Luangsodsai
On Bessel Property of the System of Root Functions of the Second Order Differential Operator	A. T. Garayeva
On Errors in Euler's Complex Exponent and Formula for ODEs	Jacob Manale

Saturday 22nd February 2020

Conference Room: A
Time: 17:30-19:30
Title: Applied Mathematics and Models in Systems
Chair: Magdi S. Mahmoud, Hyontai Sug

Discrete-Time Networked Dynamic Systems	Magdi S. Mahmoud
Computational Study of SERS Effects in some Aliphatic and Cyclic Carboxylic Acids with Silver Nanomaterials	Abdulaziz A. Al-Saadi
Local Existence and Lower Bound of Blow-up Time to a Cauchy Problem of a Coupled Nonlinear Wave Equations	Mohammad Kafini, Shadi Al-Omari
Highly Stable Multivalue Collocation Methods	Dajana Conte, Raffaele D'Ambrosio, Maria Pia D'Arienzo, Beatrice Paternoster
Efficient Checking of Functional Dependencies for Relations	Hyontai Sug
Regularized Exponentially Fitted Methods for Oscillatory Problems	Dajana Conte, Raffaele D'Ambrosio, Giuseppe Giordano, Beatrice Paternoster
On the Remainder in the Weighted Length Spectrum for Strictly Hyperbolic Fuchsian Groups	Dzenan Gusic
Neural Network Backstepping Control of Uncertain Nonlinear Systems	Magdi S. Mahmoud, Muhammad D. Maaruf, Sami Sami El Ferik
A Rigorous Derivation of the Extended KdV Equation	Marwa Berjawi, Toufic ElArwadi, Samer Israwi

19:30 Welcoming Drink

Sunday 23rd February 2020

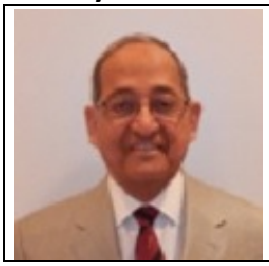
Conference Room: A
Time: 09:00-09:30
Plenary Lecture:

Megalopolises Issues of Sustainable Development
by Professor Calin I. Ciufudean
Stefan Cel Mare" Universtity of Suceava,
Faculty of Electrical Engineering and Computer Science,
Department of Computers, Automatics and Electronics,
Suceava, ROMANIA.

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

Geometrical Nonlinear Analysis of Slender Micro Arch-Beams Pulled by Magnetic Forces
by Professor J. D. Yau
Department of Architecture, Tamkang University,
New Taipei City, TAIWAN.

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



A Blockchain Architecture for Data Security Enhancement in Cooperative Intrusion Detection System (BACOIDS)
by Professor Tarek Saadawi
City University of New York,
New York, USA.

10:30-11:00: Coffee Break

Sunday 23rd February 2020

Conference Room: A
Time: 11:00-13:00
Title: Signal Processing, Communications and Automation
Chair: Calin Ciufudean

INS/GPS Integration System for Low Cost MEMS	Ashraf Ali Marie, H. E. A. Ibrahim
Generalized Roland-cerf Protocol for Adiabatic Control of a Qubit	Dionisis Stefanatos, Nikos Iliopoulos, Vasilios Karanikolas, Emmanuel Paspalakis
Digital Engineering Education Applications	Calin Ciufudean, Corneliu Buzduga
Multi-value Opinion Sharing based on Information Source Influence in Agent-based Network	Eiki Kitajima, Akihiro Murata, Keiki Takadama
Dual Stage Network Intrusion Detection System through Feature Reduction	Raghuvansh Raj, Somya Gupta, Manan Lohia, H. C. Taneja
Interference of Overhearing by Eavesdropper Nodes for Secure Wireless Ad-Hoc Networks	Hinano Amano, Hiroaki Higaki
Extended RTS/CTS Control based on Transmission Request Distribution in Wireless Ad-Hoc Networks	Momoka Hara, Hiroaki Higaki
The Synthesis of Soil Resistivity and EMF of Underground Cable Combined With 3-D Electromagnetic Field Study in Analyzing the Grounding Touch	Jeu-Min Lin

Sunday 23rd February 2020

Conference Room: A
Time: 13:00-15:00
Title: Mathematical Methods and Computational Techniques in Engineering
Chair: J. D. Yau, Dzenan Gusic

Geometrical Nonlinear Analysis of Slender Micro Arch-Beams Pulled by Magnetic Loadings	J. D. Yau, S. R. Kuo
On Generalized Length Spectrum in Quotients of SL4	Dzenan Gusic
Isochronous Oscillatory Motions and the Quantum Spectrum	Abd Raouf Chouikha
On the Error Term in the Prime Geodesic Theorem for SL4	Dzenan Gusic
Analytical and Fe Calculations for Determining the Nominal Tooth Root Stress for External, Cylindrical Gears With Symmetric and Asymmetric Profile	Daniel Debreczeni, Gabriella Bognar
Finding Zeroes and Poles of Complex Meromorphic Functions	D. V. Giri
The Development of Characteristic Boundary Condition in a Fully Coupled Pressure-Based Navier-Stokes Solver using the Finite Volume Method	Mhamad Mahdi Alloush, Fadl Moukalled, Luca Mangani, Marwan Darwish

15:00-15:30: Coffee Break

Sunday 23rd February 2020

Conference Room: A
Time: 15:30-17:30
Title: Applied Mathematics and Fluid Mechanics
Chair: Artur Bartosik, Nigel Aylward

A Computational Study of a Prebiotic Synthesis of the Steroid Progesterone (A and B Rings)	Nigel Aylward
A Computational Study of a Prebiotic Synthesis of the Steroid Progesterone (C and D Rings)	Nigel Aylward
CFD Investigation of Backward- Facing Step Nanofluid Flow	Mohamad Mehi Alddin Klazly, Gabriella Bognár
Propagation Equations for Waves in Moving Thin Films of Perfect Liquids with Weak Sources at the Bottom	A. Brener, A. Yegenova, S. Botayeva
Investigation of Convective Heat Transfer Enhancement for Nanofluid Flow Over Flat Plate	Mohamad Mehi Alddin Klazly, Gabriella Bognár
Mathematical Modelling of the Influence of Yield Shear Stress on Blood Friction in a Turbulent Flow	Artur Bartosik, Stanislaw Mitura
The Development of an Improved Full Approximation Scheme Method for Pressure-Based Finite Volume Solution of Fluid Flow	Mhamad Mahdi Alloush, Fadl Moukalled, Marwan Darwish, Luca Mangani
Simulation of the Laminar-turbulent Transition in the Boundary Layer of the Swept Wing in the Subsonic Flow at Different Angles of Attack	Stanislav Kirilovskiy, Andrey Boiko, Kirill Demyanko, Yuri Nechepurenko, Tatiana Poplavskaya
LSQ based SPH Approach in Evaluating the Impact of Sea Wall for Tsunami Bores	J. R. Rajapriyadharshini, K. Sudalaimani
Computer Simulation of Complex Formation by Lysine Dendrimer of 2nd Generation and Therapeutic Edr Peptide	V. V. Bezrodnyi, E. I. Fatullaev, S. E. Miktaniuk, I. M. Neelov

19:00: Conference Dinner