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Engineering the joint future

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Monday, October 18

Plenary session ICUMT (including all workshops), Shantan Hall, floor 1

08:45 – 09:00 Opening

09:00 – 09:30 Keynote Prof. Mario Gerla (UCLA, USA): Vehicular Communications: from urban sensing to traffic control and games

09:30 – 10:15 Industrial Panel Session 'The ICT Future by the year 2015'.

Panelists:

Marie-Paule Odini, HP CMS CTO (France)
Hong-Yon Lach, Director of Scientific Coordination, Applications Research Domain, Alcatel-Lucent Bell Labs (France)
Ken Lee, Director of Product Marketing, Service Delivery Products (OCSD), Oracle Communications Global Business Unit (USA)
Mikko Terho, VP and Nokia Fellow (Finland)
Werner Mohr, Head of Research Alliances, Nokia Siemens Networks (Germany)
Roberto Saracco, Director of Long Term Research and of Telecom Italia, Future Center, Telecom Italia (Italy)

Moderator:

Boris Moltchanov, Telecom Italia (Italy)

10:15 – 10:45 Keynote Alexey Shalaginov (Huawei): Challenges and strategies of telecommunication industry - how to approach.

10:45 – 11:00 Coffee break

11:00 – 19:00 Workshops: OPNTDS (room Versailles, floor 1), FOAN (room 1450, floor 14), ASNC (room 1850, floor 18), SoS (room 1650, floor 16), WMCNT (room 1550, floor 15), APTP+MS (room Elysees, floor 1)

Plenary session (continuation), Shantan Hall, floor 1

11:00 – 11:45 Keynote Dr. Alexander Sayenko (NSN): State of the art and future trends of the multi-carrier solutions.

11:45 – 12:30 Keynote Dr. Mikhail Kader (Cisco): Securing the Public & Private Cloud.

12:30 – 13:30 Lunch

13:30 – 15:30 Technical sessions

15:30 – 16:00 Coffee break

16:00 – 19:30 Technical sessions

20:00 – 23:00 Banquet, Place de Paris Hall

Tuesday, October 19

Plenary session, room Pushkin 1+2+3, floor 20

09:00 – 09:45 Keynote Prof. Antonio Bicchi (University of Pisa, Italy): Towards a Society of Robots Behaviors, Misbehaviors, Consensus and Security

09:45 – 10:30 Keynote Prof. Juha Ronning (University of Oulu, Finland): Human-Machine Interface

10:30 – 11:00 Coffee break

09:00 – 17:30 Workshop RNDM 2010 (room Elysees, floor 1)

11:00 – 19:00 Workshops WMCNT 2010 (room 1550, floor 15)

11:00 – 13:00 Technical sessions

13:00 – 14:00 Lunch

14:00 – 15:30 Technical sessions

15:30 – 16:00 Coffee break

16:00 – 18:00 Technical sessions

20:00 – 23:00 Bus Tour

Wednesday, October 20

09:30 – 12:30 Technical sessions (rooms Pushkin 1 and Pushkin 2, floor 20)

09:30 – 18:45 Workshop RNDM 2010 (room Elysees, floor 1)

Monday, October 18, 13:30 – 15:30

Technical Session title and Contents

Special Session RABAN

Room Pushkin 1: ICUMT-T Main Track

A Novel Combined CSI Feedback Mechanism to Support Multi-User MIMO Beamforming Schemes in TDD-OFDMA Systems
Gregory Morozov (Intel Corp., Russia); Alexei Davydov (Intel Corp., Russia); Apostolos Papathanassiou (Intel Corporation, USA)

Analysis of IEEE 802.16m and 3GPP LTE Release 10 Technologies by Russian Evaluation Group for IMT-Advanced
Alexander Maltsev (Intel A/O, Russia); Alexey Khoryaev (Intel Corporation, Russia); Roman Maslennikov (The University of Nizhny Novgorod, Russia); Mikhail Shilov (Intel, Russia)

Algorithm Selection and Hardware Implementation for Channel Equalization in MB-OFDM Based UWB Communications for Indoor WPAN Applications
Arkosnato Neogy (Indian Institute of Technology, Kharagpur, India); Tuhin Chakraborty (IIT Kharagpur, India); Saswat Chakrabarti (Indian Institute Of Technology,Kharagpur, India)

Basic Client Relay Model for Wireless Cellular Networks
Sergey Andreev (Tampere University of Technology, Finland); Olga Galinina (Speech Technology Center, Saint Petersburg, Russia); Andrey Turlikov (Saint-Petersburg State

University of Aerospace Instrumentation, Russia)

Room Pushkin 2: ICUMT-T Main Track

Wireless Networks I

Evaluation of Publish-Subscribe Based Communication over WiMAX Network
Borislava Gajic (RWTH Aachen University, Germany); Janne Riihijarvi (RWTH Aachen University, Germany); Petri Mahonen (RWTH Aachen University, Germany)

An Evaluation of Compression Schemes for Wireless Networks
Kirsten Dolfus (University of Bern, Switzerland); Torsten Ingo Braun (University of Bern, Switzerland)

The Need for a System Design Methodology to Address Challenges in Wireless Access in Vehicular Ad Hoc Networks
Chrysostomos Chrysostomou (Frederick University Cyprus, Cyprus); Lambros Lambrinos (Cyprus University of Technology, Cyprus); Costas Tziouvas (Cyprus University of Technology, Cyprus)

An Innovative Low Complexity PAPR Reduction TR-based Technique for DVB-T2 System
Mohamad Mroue (SUPELEC, France); Amor Nafkha (SUPELEC, France); Jacques Palicot (IETR/Supelec, France)

Room Pushkin 3: ICUMT-T Main Track

OFDM

Analysis of Space-Frequency Coded OFDM with I/Q Imbalance
Udesh Oruthota (Aalto University, Finland); Olav Tirkkonen (Aalto University, Finland); Natalia

Ermolova (Aalto University, Finland)

Efficient WH-OFTDM signals processing
Dmitry Petrov (Moscow State University, Russia)

Blind Estimation of The Time-Frequency Activity Rate of OFDMA Signals
Mohamed Rabie Oularbi (TELECOM Bretagne, France); Francois-Xavier Socheleau (TELECOM Bretagne, France); Abdeldjalil Aissa-El-Bey(TELECOM Bretagne, France); Sebastien Houcke (Institut TELECOM ; TELECOM Bretagne, France)

MPSK Symbol Error Rate Minimization for OFDM Systems Coupled with Deterministic PAPR Reduction Technique
Armin Morattab (K.N.Toosi University of Technology, Iran); Mehrdad Ardebilipour (Khajeh Nasir university, Iran); Behrad Mahboobi (Tehran Univ, Iran)

Room 1950: ICUMT-CS Main Track

Information Processing I

Statistically Linearized Least-Squares Temporal Differences
Matthieu Geist (Supelec, France); Olivier Pietquin (Supelec, France)

Eligibility Traces through Colored Noises
Matthieu Geist (Supelec, France); Olivier Pietquin (Supelec, France)

Automatic 3D Modeling of the Urban Landscape
Isaac Esteban (University of Amsterdam, The Netherlands); Judith Dijk (TNO, The

Netherlands); Frans Groen (University of Amsterdam, The Netherlands)

Real-Time Communication for IEC 61499 in Switched Ethernet Networks
Andreas Schimmel (Vienna University of Technology, Austria); Alois Zoitl (Vienna University of Technology, Austria)

Monday, October 18, 16:00 – 19:00

Technical Session title and Contents

Special Session RABAN (Continuation)

Room Pushkin 1: ICUMT-T Main Track

Joint Network-Channel Distributed Coding for the Multiple Access Full-Duplex Relay Channel
Atoosa Hatefi (Ecole Supelec, France); Raphael Visoz (Orange Labs, France); Antoine O. Berthet (Supelec, France)

QoS Aware Power Allocation in Multi-Hop Multi-Relay Network
Behrad Mahboobi (Tehran Univ, Iran); MohammadAli Mohammadi (K.N.Toosi University of Technology, Iran); Mehrdad Ardebilipour (Khajeh Nasir university, Iran); Armin Morattab (K.N.Toosi University of Technology, Iran)

On Interference-Aware Cooperation Policies for Wireless Ad Hoc Networks
Cristiano Tapparello (University of Padova, Italy); Stefano Tomasin (University of Padova,

Italy); Michele Rossi (University of Padova, Italy)

On the Transmission Capacity of Wireless Multi-Channel Ad Hoc Networks with local FDMA scheduling
Jens P. Elsner (Karlsruhe Institute of Technology (KIT), Germany); Ralph Tanbourgi (Karlsruhe Institute of Technology (KIT), Germany); Friedrich K. Jondral (Karlsruhe Institute of Technology, Germany)

Centralized Collaborative Compressed Sensing of Wideband Spectrum for Cognitive Radios
Hessam Moussavinik (Norwegian University of Science and Technology, Norway); Wael Guibene (Institut Eurecom, France); Aawatif Hayar(Eurecom, France)

A Middleware Framework for Communication in Cognitive Radio Networks
Alexandru Popescu (Blekinge Institute of Technology, Sweden); David Erman (Blekinge Institute of Technology, Sweden); Markus Fiedler (Blekinge Institute of Technology, Sweden); Adrian Popescu (Blekinge Institute of Technology, Sweden); Demetres Kouvatsos (University of Bradford, United Kingdom)

Room Pushkin 2: ICUMT-T Main Track

Special Session P2P-DVE

State Management in Distributed Virtual Environments: A Voronoi Based Approach
Luca Genovali (IMT, Italy); Laura Ricci (University of Pisa, Italy)

SCAFFOLD - Self Configuring Overlays Using Metadata Hypercubes
Deepak Gangadhar (IBM Software Lab, India)

Performance analysis of optimization techniques in peer-to-peer video streaming systems with tree/forest topology
Paolo Giacomazzi (Politecnico di Milano, Italy); Alessandro Poli (Politecnico di Milano, Italy)

Push-pull techniques in peer-to-peer video streaming systems with tree/forest topology
Paolo Giacomazzi (Politecnico di Milano, Italy); Alessandro Poli (Politecnico di Milano, Italy)

Performance analysis of mesh-based peer-to-peer video streaming systems
Paolo Giacomazzi (Politecnico di Milano, Italy); Alessandro Poli (Politecnico di Milano, Italy)

Room Pushkin 3: ICUMT-T Main Track

Video

Low bit rate video coding based on three-dimensional discrete pseudo cosine transform
Eugeniy Belyaev (St. Petersburg Institute for Informatics and Automation of RAS, Russia)

Effect of A Priori Information in Pixel Domain Wyner-Ziv Video Coding
Ralph Hansel (University of Rostock, Germany); Erika Muller (University of Rostock, Germany)

Low-complexity JPEG-based progressive video codec for wireless video transmission
Anna Ukhanova (Technical University of Denmark, Denmark); Soren Forchhammer (Technical University of Denmark, Denmark)

Intelligent Inpainting System for Texture Reconstruction in Videos with Text Removal
Margarita N. Favorskaya (Siberian State Aerospace University, Russia); Alexander G. Zotin

(Siberian State Aerospace University, Russia); Mikhail V. Damov (Siberian State Aerospace University, Russia)

Evaluation of Swarm Video Streaming
David Erman (Blekinge Institute of Technology, Sweden); Yong Yao (Blekinge Institute of Technology, Sweden); Karel De Vogeleer (Blekinge Institute of Technology, Sweden); Adrian Popescu (Blekinge Institute of Technology, Sweden)

Room 1950: ICUMT-CS Main Track

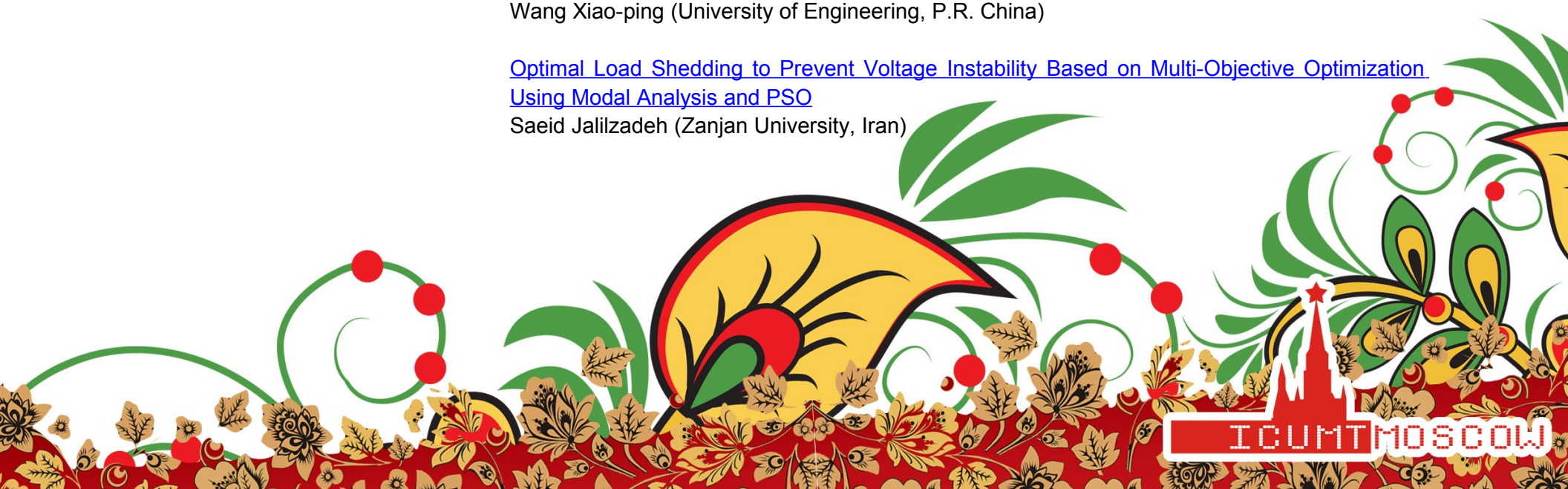
Particle Swarm Optimization

Gain-scheduling Adaptive Control of the STATCOM for Electrified Railway Systems Using PSO
Ramin Zaeim (Islamic Azad University Science & Research branch, Iran); Asyieh Khoshkholgh (Azad University, Garmsar branch, Iran)

Complex PDE Image Denoising Based on Particle Swarm Optimization
Saeid Fazli (Zanjan University, Iran); Hamed Bouzari (Zanjan University, Iran); Hamed Moradi Pour (Zanjan University, Iran)

Aircraft Evasive Maneuver Trajectory Optimization Based on QPSO
Wang Xiao-ping (University of Engineering, P.R. China)

Optimal Load Shedding to Prevent Voltage Instability Based on Multi-Objective Optimization Using Modal Analysis and PSO
Saeid Jalilzadeh (Zanjan University, Iran)



Application of IDPSO Approach for TNEP Problem Considering the Loss and Uncertainty in load growth
Saeid Jalilzadeh (Zanjan University, Iran)

Information Processing II

Advanced Wavelet Based Steganography for Colored Images
Saeid Fazli (Zanjan University, Iran); Sajad Gholamrezaei (Zanjan University, Iran); Amir Bazrafshan (Guilan University, Iran)

Fiducial Facial Points Tracking Using Particle Filter and Geometric Features
Saeid Fazli (Zanjan University, Iran); Reza Afrouzian (Zanjan University, Iran); Hadi Seyedarabi (University of Tabriz, Iran)

Tuesday, October 19, 11:00 – 13:00

Technical Session title and Contents

Channel Access Control

Room Pushkin 1: ICUMT-T Main Track

Decreasing Call Blocking Probability of Broadband TV Services by a Channel Access Control Scheme
Junyu Lai (University of Hamburg, Germany); Bernd E. Wolfinger(University of Hamburg, Germany); Stephan Heckmuller (University of Hamburg, Germany)

A Configurable Medium Access Control Protocol for IEEE 802.15.4 Networks
Rodrigo Steiner (Federal University of Santa Catarina, Brazil); Tiago Muck(Federal University of Santa Catarina, Brazil); Antфnio Augusto Frohlich (Federal University of Santa Catarina, Brazil)

Wireless Sensor Networks

Localization Security in Wireless Sensor Networks as a Non-cooperative Game
Nicola Gatti (Politecnico di Milano, Italy); Mattia Monga (Universita degli Studi di Milano, Italy); Sabrina Sicari (Universita degli Studi dell'Insubria, Italy)

Optimization of Microcontroller Hardware Parameters for Wireless Sensor Network Node Power Consumption and Lifetime Improvement

Konstantin Mikhaylov (University of Oulu, Finland); Jouni Tervonen (University of Oulu, Finland)

Room Pushkin 2: ICUMT-T Main Track

Networking II

My Own Communication Service Provider
Sivasothy Shanmugalingam (Institut Telecom SudParis, France); Paul Labrogere (Bell Labs, Alcatel-Lucent, France); Noel Crespi (Institut Telecom SudParis, France)

MCP-RWA: A Novel Algorithm for QoT-guaranteed Online Provisioning in Photonic Networks
Davide Adami (CNIT Pisa Research Unit, Dept. of Information Engineering, University of Pisa, Italy); Stefano Giordano (University of Pisa, Italy); Michele Pagano (University of Pisa, Italy); Luiz Gustavo Zuliani (University of Pisa, Italy)

Adaptive End-to-End QoS Mechanism for Mobile Internet
Moo Wan Kim (Tokyo University of Information Sciences, Japan)

Page Flip Contents Caching Method Using User Request on Digital Media Server
Byungsoo Lim (Samsung Electronics, Korea); Joonoo Kim (Samsung Electronics, Korea)

Room Pushkin 3: ICUMT-T Main Track

Networking I

Packet size and DTN transport service: Evaluation on a DTN Testbed
Nikolaos Bezirgiannidis (Democritus University of Thrace, Greece); Vassilis Tsaoussidis (Democritus University of Thrace, Greece)

Cross-talk effects on the Regenerator Allocation optimization
Eva Marin/Tordera (Technical University of Catalonia UPC, Spain); Xavier Masip-Bruin (Universitat Politecnica de Catalunya, Spain); Marcelo Yannuzzi (Technical University of Catalonia (UPC), Spain); Rene Serral-Gracia (Technical University of Catalunya (UPC), Spain); Sergio Sбnchez-Lopez (Technical University of Catalonia, Spain)

Distributed Linked Data Structures for Efficient Access to Information within Routers
Pier Luca Montessoro (University of Udine, Italy)

Local Repair Mechaism for Reliable Multicast in Integrated Communication and Broadcast Networks with Scalability
Hideya Yoshiuchi (Hitachi (China) Research and Development Corporation, Japan); Jiping Lv (Hitachi (China) Research & Development Corporation, P.R. China); Satoshi Yoshizawa (Hitachi (China) Research and Development Corporation, Japan); Zhisheng Niu (Tsinghua University, P.R. China)

Room 1950: ICUMT-CS Main Track

Autonomous Systems I

Multimodal Human-Robot Interaction
Victor Budkov (SPIIRAS, Russia); Maria Prischepa (SPIIRAS, Russia); Andrey Ronzhin (SPIIRAS, Russia); Alexey A. Karpov (St. Petersburg Institute for Informatics and Automation of RAS, Russia)

Design and Implementation of Multi-sensor Based Autonomous Minesweeping Robot
Reza Abbaspour (University of Vaasa, Finland)

Low Cost Implementation Of Pseudo Arm By Poly-Finger Tactual Interface

Ashesh Vasalya (Vellore Institute Of Technology, India); Pavan Harsha Sata Venkata (Vellore Institute of Technology, India); Sushrith Piduru Reddy (Vellore Institute of Technology, India); Rishvanth K. P. (Vellore Institute of Technology, India); Shekhar Rai (Vellore Institute Of Technology, India)

NURBS Interpolator with Confined Chord Error and Tangential and Centripetal Acceleration Control

Alessandro Bardine (Universita di Pisa, Italy); Stefano Campanelli (Universita di Pisa, Italy); Pierfrancesco Foglia (University of Pisa, Italy); Cosimo Prete (University of Pisa, Italy)

Tuesday, October 19, 14:00 – 15:30

Technical Session title and Contents

Wireless Networking

Room Pushkin 1: ICUMT-T Main Track

Passive TDOA Location in Mobile Ad-hoc Networks
Israel Martin-Escalona (Technical University of Catalonia, Spain); Francisco Barcelo-Arroyo (Universitat Politecnica de Catalunya (UPC), Spain); Marc Ciurana (Technical University of Catalonia (UPC), Spain)

UAV Relay Network to Support WSN Connectivity
Edison Pignaton de Freitas (Halmstad University, Sweden); Tales Heimfarth (Federal University of Rio Grande do Sul, Brazil); Ivayr Farah Netto (Federal University of Lavras, Brazil); Carlos Eduardo Lino (Federal University of Lavras, Brazil); Carlos E. Pereira (Federal University of RGS - UFRGS, Brazil); Armando Morado Ferreira (Military Institute of Engineering, Brazil); Flavio Rech Wagner (Federal University of Rio Grande do Sul, Brazil); Tony I Larsson (Halmstad University, Sweden)

A Practical Approach to Powering Wireless Sensor Nodes by Harvesting Energy from Heat Flow in Room Temperature
Reza Abbaspour (University of Vaasa, Finland)

Room Pushkin 2: ICUMT-T Main Track

MIMO

Performance analysis of dual-hop dual-antennas MIMO systems in Rayleigh fading
Zoran Hadzi-Velkov (Ss. Cyril and Methodius University, Macedonia); Jovan D. Stosic (Makedonski telekom AD, Macedonia)

MIMO based Wireless Backhaul
Ehab Mahmoud Mohamed (Kyushu University, Japan)

Cloud Computing

Sub-millisecond Level Latency Sensitive Cloud Computing Infrastructure
Zhitao Wan (Nokia Siemens Networks, P.R. China)

Room Pushkin 3: ICUMT-T Main Track

Wireless Channels Issues

Impact of Shadowing on Wireless Channel Characterization for a Public Indoor Commercial Topology at 2.4 GHz
Theofilos Chrysikos (University of Patras, Greece); Giannis Georgopoulos (University of Patras, Greece); Stavros Kotsopoulos (Wireless Telecommunications Laboratory, Greece)

An Upper-bound Queueing Model for Multi-rate Downlink SDMA systems
Boris Bellalta (Universitat Pompeu Fabra, Spain); Alexey Vinel (Tampere University of Technology, Finland); Miquel Oliver(Universitat Pompeu Fabra, Spain)

Spectral and Power Efficiency Trade-offs for Multi-antenna Reception Techniques under Co-Channel Interference
Ozgur Ertug (Gazi University, Turkey)

Room 1950: ICUMT-CS Main Track

Autonomous Systems II

Measurement Preprocessing-Based Estimation Approach to Target Tracking
Tan-Jan Ho (Chung-Yuan Christian University, Taiwan); Y-J Chen (Chung-Yuan Christian University, Taiwan)

Performance Analysis of a Kalman Filter Based Attitude Estimator for a Quad Rotor UAV
Dinuka Abeywardena (University of Moratuwa, Sri Lanka); Rohan Munasinghe (University of Moratuwa, Sri Lanka)

An enhanced workflow management for Utility Management Systems
Srdjan Vukmirovic (Faculty of Technical Sciences, Serbia); Slobodan Lukovic (University of Lugano, Switzerland); Aleksandar Erdeljan (University of Novi Sad, Serbia); Filip Kulic (University of Novi Sad, Serbia)

Tuesday, October 19, 16:00 – 18:00

Technical Session title and Contents

Applications and Services

Room Pushkin 1: ICUMT-T Main Track

Managing Wireless IP-Connectivity Experiences as Mobile Social Media
Roberto R. F. Lopes (University of Sao Paulo, Brazil); Bert-Jan van Beijnum(University of Twente, The Netherlands); Edson D. S. Moreira (University of Sao Paulo, Brazil)

Viability and Guidelines for the Effective Integration of Consumer WiFi in Industrial Plants
Daniele Brevi (Istituto Superiore Mario Boella, Italy); Luca Pilosu (ISMB, Italy); Francesco Fileppo (Istituto Superiore Mario Boella, Italy); Riccardo M. Scopigno (Istituto Superiore Mario Boella, Italy)

Geo Messages
Dmitry Namiot (Moscow State University, Russia)

TransCryptDFS: A Secure Distributed Encrypting File System
Rohit Agrawalla (Indian Institute of Technology Kanpur, India); Dharmendra Modi (Indian Institute of Technology Kanpur, India); Rajat Moona (Indian Institute of Technology Kanpur, India)

Room Pushkin 2: ICUMT-T Main Track

Traffic modeling and analysis

Analysis of World of Warcraft Traffic patterns and User behavior
Maria Kihl (Lund University, Sweden); Andreas Aurelius (Acreo AB, Sweden); Christina Lagerstedt (Acreo AB, Sweden)

Traffic analysis and characterization of Internet user behavior
Maria Kihl (Lund University, Sweden); Andreas Aurelius (Acreo AB, Sweden); Christina Lagerstedt (Acreo AB, Sweden); Per Odling (Lund University, Sweden)

SumD-BMAP/D/1/K queuing system with priorities
Dmitri Moltchanov (Tampere University of Technology, Finland); Yevgeni Koucheryavy (Tampere University of Technology, Finland)

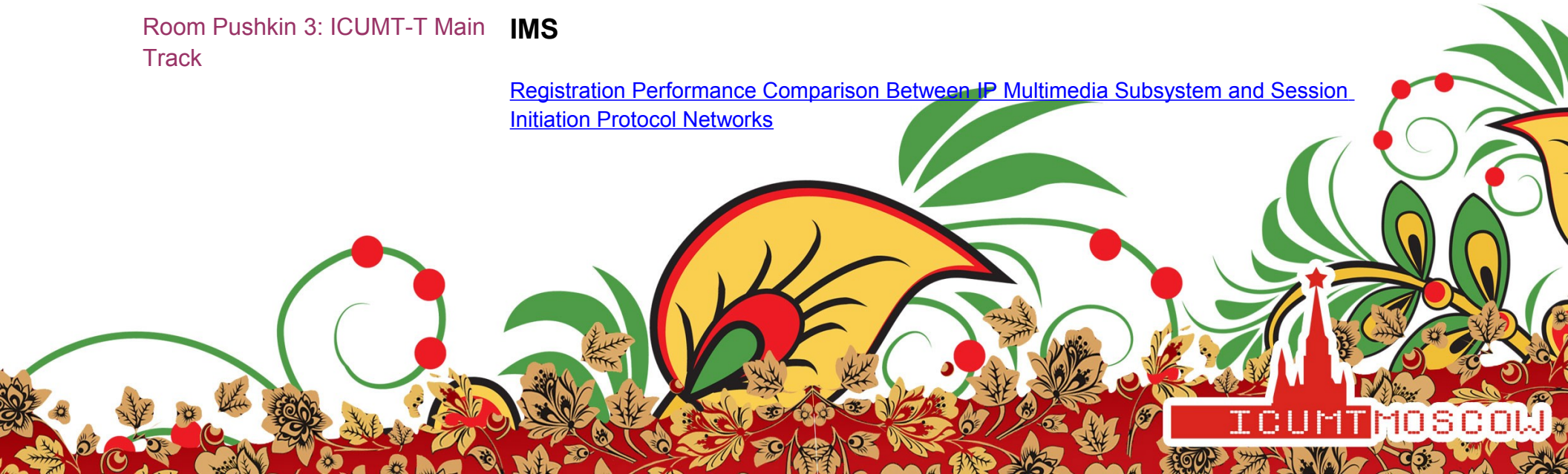
On Erlang B-formula and ERT method extension
Manfred Schneps-Schneppe, Janis Sedols (Ventspils University College, Latvia)

Dynamic channel allocation scheme with a queue for elastic traffic
Gely Basharin (Peoples' Friendship University of Russia, Russia); Sergei Shtatnov (Peoples' Friendship University of Russia, Russia)

Room Pushkin 3: ICUMT-T Main Track

IMS

Registration Performance Comparison Between IP Multimedia Subsystem and Session Initiation Protocol Networks



Jari Kellokoski (University of Jyvaskyla, Finland); Erno Tukia (University of Jyvaskyla, Finland); Eero Wallenius (University of Jyvaskyla, Finland); Timo Ндтдlдinen (University of Jyvaskyla, Finland); Jyri Naarmala (University of Vaasa, Finland)

Towards IPTV Service Discovery and Selection in an IMS Environment
Mosiuoa J Tsietsi (Rhodes University, South Africa); Ray Musvibe (Rhodes University, South Africa); Alfredo Terzoli (Rhodes University, South Africa);George Wells (Rhodes University, South Africa)

Networking III

Towards Modular Redesign of Networked System
Mark Sh. Levin (Institute for Information Transmission Problems, Russian Academy of Sciences, Russia); Alexander V Safonov (Moscow Institute of Physics and Technology (State University), Russia)

Using an RTSP Proxy to implement the IPTV Media Function via a streaming server
Alfredo Terzoli (Rhodes University, South Africa); Karen Bradshaw (Rhodes University, South Africa)

Room 1950: ICUMT-CS Main Track

Intelligent Computation and Control

Optimal coordination of overcurrent relays using Honey Bee Algorithm
Vahid Rashtchi (Zanjan University, Iran); Javad Gholinezhad (Zanjan University, Iran); Peyman Farhang (Zanjan University, Iran)

Improvement of Ant Colony System by Using of Narrowing of Search Domain and Adaptive Number of Search Nodes
Vahid Rashtchi (Zanjan University, Iran); Alireza Jamshidi (Zanjan University, Iran)

Dispersion Management and Gain Flattened for a Bridge-Type Hybrid Amplifiers in a Pumping Recycling Mechanism
Shien-Kuei Liaw Yu-Sheng Huang, Hsin-Kai Hung, Nan-Kuang Chen, Kuei-Chu Hsu, Yi-Lin Yu, Ting Wang (National Taiwan University of Sciene & Technology, Taiwan); A. Manshina and Y. Tver'yanovic (Laser Research Institute, Saint-Petersburg State University, Saint Petersburg, Russia)

Multi-Period Generation Expansion Planning Using Genetic Algorithm
Saeid Jalilzadeh (Zanjan University, Iran)

A New Approach for Subtransmission System Expansion Planning with genetic alghorithm
Saeid Jalilzadeh (Zanjan University, Iran)

Wednesday, October 20, 09:00 – 12:30

Technical Session title and Contents

Wireless Networks II

Room Pushkin 1: ICUMT-T Main Track

Performance Optimization of TH-UWB system in Multipath Channel
Anis Naanaa (Ecole nationale d'ingenieurs de Tunis, Tunisia)

Fair Access Rate "FAR" Provisioning in Multi-hop Multi-channel Wireless Mesh Networks
Jalaa Hoblos (Kent State University, USA)

Network Address Assignment in Mobile Ad-Hoc Networks
Mohammad Al-Shurman (Jordan university of science and technology, Jordan); Mamoun F. Al-Mistarihi (Jordan University of Science and Technology, Jordan); Ahmad Qudaimat (Palestine Polytechnic University, Palestine)

Cooperative transmission

Optimized Closed-form Power Allocation for Outage Restricted Cluster-based Cooperative Networks over Nakagami-m Channels
Azar Taheri (Iran University of Science and Technology, Iran); Bahman Abolhassani (Iran University of Science and Technology, Iran)

Energy-Efficient Cooperative Routing for multi-hop Networks Over Nakagami-m and Rice Channels
Azar Taheri (Iran University of Science and Technology, Iran); Bahman Abolhassani (Iran University of Science and Technology, Iran)

User Interface

Development of tangible user interface for linking context modeling and 3D map of the smartphone
Jin-Suk Kang (Jangwee Research Institute for National Defence, Ajou University, Korea)

Room Pushkin 2: ICUMT-T Main Track

Networking III

Novel RAT selection mechanism based on Hopfield Neural Networks
Valentin Rakovic (Faculty of Electrical Engineering and Information Technologies - Skopje, Macedonia); Liljana Gavrilovska (Faculty of Electrical Engineering and Information Technologies, Macedonia)

Heuristic Mobility-Aware OLSR Protocol for Inter-Vehicle Communication (VANET)
Ukrit Arom-oon (King Mongkut's University of Technology North Bangkok, Thailand)

Wireless Channels Issues II

New Stopping Criterion for Turbo Code in the Presence of SNR Mismatch

Shahab Asoodeh (Shahid Beheshti University, Iran)

A real-time algorithm for fingerprint localization based on clustering and spatial diversity
Xiaokang Lin, Xing-chuan Liu, Sheng Zhang, Qing-yuan Zhao and Xiao-kang Lin (Tsinghua University, P.R. China)

Improvement eye diagram opening by base band Pre-distortion over Nonlinear Channel in DVB-RCS Transmitter
Parvin Sojoodi Sardrood (Iran Telecommunication Research Centre, Iran)

Closing

ICUMT 2011 Keynote Speakers

Prof. Mario Gerla (UCLA, USA):

Vehicular Communications: from urban sensing to traffic control and games

Abstract

There has been growing interest in using vehicle networking for mobile applications ranging from safe driving to location aware content distribution, intelligent transport, commerce and games. This unusual diversity of applications sets the Vehicular ad Hoc Network (VANET) apart from conventional MANETs used in tactical and civilian emergency scenarios and introduces new design challenges. In this talk we review the emerging VANET standard based on DSRC/IEEE 802.11p. We then introduce emerging vehicular applications and examine the new services they require beyond the standards. A representative scenario is urban sensing: vehicles monitor the environment, classify the events, e.g., license plates, chemical readings, radiation levels, and then generate metadata. The metadata in turn can be uploaded to Internet servers or can be kept on board of vehicles for future, forensic harvesting by Authorities. A related application is vehicle monitoring of traffic congestion and pollution. The information received from vehicles will be used by Navigator Servers and Transport Authority to dynamically adjust traffic flows and routes so as to minimize both travel delay and urban pollution. On the entertainment side, VANET unutilized bandwidth will allow passengers to down load favorite

video streams and the younger generation to play network games with peers on other cars and/or across the Internet. The above applications exhibit remarkably different requirements in terms of delay, storage, bandwidth and security. We will outline the VANET services that are required to enable their smooth coexistence. We will then conclude the talk with preliminary experiments carried out on the UCLA Campus Vehicle Testbed (C-VeT).

Bio

Dr. Mario Gerla, Professor, UCLA, Computer Science Dept. Dr. Gerla received his Engineering degree from the Politecnico di Milano, Italy, in 1966 and the M.S. and Ph.D. degrees from UCLA in 1970 and 1973. He became IEEE Fellow in 2002. At UCLA, he was part of a small team that developed the early ARPANET protocols under the guidance of Prof. Leonard Kleinrock. He worked at Network Analysis Corporation, New York, from 1973 to 1976, transferring the ARPANET technology to several Government and Commercial Networks. He joined the Faculty of the Computer Science Department at UCLA in 1976, where he is now Professor.

At UCLA he has designed and implemented some of the most popular and cited network protocols for ad hoc wireless networks including distributed clustering, multicast (ODMRP and CODECast) and transport (TCP Westwood) under DARPA and NSF grants. He has lead the $12M, 6 year ONR MINUTEMAN project, designing the next generation scalable airborne Internet for tactical and homeland defense scenarios. He is now leading two advanced wireless network projects under ARMY and IBM funding. In the commercial network scenario, with NSF and Industry sponsorship, he has led the development of vehicular communications for safe navigation, urban sensing and location awareness. A parallel research activity covers personal P2P communications including cooperative, networked medical monitoring (see www.cs.ucla.edu/NRL for recent publications).

Dr. Alexander Sayenko (NSN):

State of the art and future trends of the multi-carrier solutions

Abstract

Catering for higher data rates, recent wireless broadband access systems, such as 3GPP HSPA+ and LTE, have evolved from the single-carrier solution to the multi-carrier one that allows them to run more than one carrier in the same band or even across several bands. In conjunction with other technologies, such as MIMO, cooperative multi-point transmission, and relaying, the multi-carrier presents a potential for a new area of wireless research and development. In this presentation, we will give a brief overview of existent and being standardized solutions for multiple carriers along with the related research problems and challenges for both the terminal and the network side. Then, we will present next anticipated steps in the area of standardization with regards to mutiple carriers. At the end, we will provide an overview of ideas when the multi-carrier solutions are combined with relaying and cooperative transmissions.

Bio

Alexander Sayenko obtained the BSc degree from the Kharkov State University of RadioElectronics (Ukraine) in 2001. In 2002, he received the MSc degree from the University of Jyvaskyla (Finland). After enrolling to the PhD program, he focused on scheduling, the QoS, network

management and signaling mechanisms for the core wired networks. While working on the signaling solutions, he took part in the IETF NSIS and TS WGs. Starting from 2007, he worked for Nokia Research Center as a senior research engineer. His responsibility was terminal architectures and the resource and power management solutions for mobile terminals. In 2008, he joined Nokia Siemens Networks as a senior specialist where his research responsibilities are simulation and performance analysis of wireless broadband systems, in particular IEEE 802.16 WiMAX.

Since 2007, he has been taking part in the WiMAX Forum in AWG and TWG working groups. Following his standardization activities and interest in the wireless systems, in 2010 he became the Nokia Siemens Networks delegate in 3GPP RAN2. His research interests include simulations, performance analysis and resource management in wireless networks.

Dr. Mikhail Kader (Cisco):

Securing the Public & Private Cloud

Abstract

During this session we will discuss current cloud computing service delivery models. We will also analyze security threats and vulnerabilities related to cloud computing and how they should be addressed.

Bio

Mikhail Kader is the Distinguished Systems engineer for Security working at Cisco Systems, Inc. He has over 20 years of experience in Information Technology and network security. As the key part of his job he has been providing security consulting to key SPs in Russia and CIS region. Mikhail was also the part of working groups in Russia developed several security documents and proposals including “Security Conception for Public Networks”, “Baseline security level for telecom networks”.

Prof. Antonio Bicchi (University of Pisa, Italy):

Towards a Society of Robots Behaviors, Misbehaviors, Consensus and Security

Abstract

In this talk I will consider how very large numbers of robots, differing in their bodies, sensing and intelligence, may be made to coexist, communicate, and compete fairly towards achieving their individual goals, i.e. to build a “society of robots”.

Some characteristics that the rules defining acceptable social behaviors should possess will be discussed. I will consider threats that may be posed to such a society by the misbehaviors of some of its members, due either to faults or malice, and the possibility to detect and isolate them through the cooperation of peers. The talk will present examples of protocols for planning motions that guarantee collision avoidance for arbitrarily large groups of heterogeneous robots, and discuss intrusion detection algorithms, which allow detection of deviance from such rules. I will further introduce algorithms to build a consensus view on what a "behaviour" and a "misbehaviour" is, the status of the environment and the integrity of peers, so as to improve the overall security of the society of robots.

In the presentation, the mathematics of one of the technical enablers for the study of consensus, i.e. the theory of dynamical systems on Boolean algebras, will be introduced and illustrated.

Bio

Antonio Bicchi received the "Laurea" degree in Mechanical Engineering from the University of Pisa in 1984, and the Doctoral degree from the University of Bologna in 1989. After a post-doctoralf fellowship at the Artificial Intelligence lab , Massachusetts Institute of Technology, he joined the Faculty of Engineering in the University of Pisa in 1990.

He is Professor of Systems Theory and Robotics in the Department of Electrical Systems and Automation (DSEA) of the University of Pisa and the Director of the Interdepartmental Research Center "E. Piaggio" of the University of Pisa , where he has been leading the Automation and Robotics group since 1990.His main research interests are inDynamics, kinematics and control of complex mechanical systems, including robots, autonomous vehicles, and automotive systems;Haptics and Dexterous manipulation;Theory and control of nonlinear systems, in particular hybrid (logic/dynamic, symbol/signal) systems.He has published more than 200 papers on international journals, books, and refereed conferences. Antonio Bicchi is a Fellow of IEEE , and elected Chair of the Conference Editorial Board of IEEE Robotics and Automation Society .Past service: Vice President of IEEE Robotics and Automation Society for Member Activities; Distinguished Lecturer of the IEEE Robotics and Automation Society (see here for abstracts of lecture topics); Chairman of the Technical Committee for Manufacturing, Automation, and Robotics Control (MARC) of IEEE Control Systems Society.

He is Professor of Systems Theory and Robotics in the Department of Electrical Systems and Automation (DSEA) of the University of Pisa and the Director of the Interdepartmental Research Center "E. Piaggio" of the University of Pisa , where he has been leading the Automation and Robotics group since 1990.

His main research interests are in i) Dynamics, kinematics and control of complex mechanical systems, including robots, autonomous vehicles, and automotive systems; ii) Haptics and Dexterous manipulation; iii) Theory and control of nonlinear systems, in particular hybrid (logic/dynamic, symbol/signal) systems.

He has published more than 200 papers on international journals, books, and refereed conferences.

Antonio Bicchi is a Fellow of IEEE , and elected Chair of the Conference Editorial Board of IEEE Robotics and Automation Society.

Past service: Vice President of IEEE Robotics and Automation Society for Member Activities; Distinguished Lecturer of the IEEE Robotics and Automation Society (see here for abstracts of lecture topics); Chairman of the Technical Committee for Manufacturing, Automation, and Robotics Control (MARC) of IEEE Control Systems Society.

Prof. Juha Ronning (University of Oulu, Finland):

Towards natural human-robot interaction

Abstract

We believe that in 15 years servicing robots will become a part of our everyday lives. Such robots could take care of many routine tasks that previously required human labor. As these robots are working in the same environment as humans, they must be able to interact with each other in a way, which is natural to humans, but also conveniently without requiring too much effort. Therefore, in our future scenario, the human-robot interaction can take place locally in a "face to face" manner as well as remotely using a mobile device and wireless communication. The mobile device provides a bidirectional affective connection between the user and the robot to convey their presence to the remote site. For example, a domestic robot could sense the presence of each family member despite their physical locations, but also the human could interact with the robot in the same way as it would be nearby.

The objective is to develop leading edge approaches for affective human-robot interaction (HRI) in smart Ubicom environments. An intelligent robot should be able to detect and identify the user in order to personalize its services and guarantee security, it should recognize user's emotions

to allow affective interaction, and it should be able to communicate easily with the user and understand given commands by recognizing speech and gestures. Our research is motivated, for example, by the emerging needs of elderly care, health care, safety, and logistics.

Bio

Juha Rцning (1957) obtained the degree of Doctor of Technology in 1992, Licentiate in Technology with honors in 1985, and Diploma in Engineering (MSEE) with honors in 1983, all at the University of Oulu in Finland.

From 1983 he has been a member of faculty of the University of Oulu, where he is currently Professor of Embedded System and head of the Department of Electrical and Information Engineering. He is principal investigator of the Intelligent Systems Group (ISG). In 1985 he received Asla/Fullbright scholarship. From 1985 to 1986 he was a visiting research scientist in the Center for Robotic Research at the University of Cincinnati. From1986 to1989 he held a Young Researcher Position in the Finnish Academy. In 2000 he was nominates as Fellow of SPIE. Professor Rцning has two patents and has published more than 250 papers in the areas of computer vision, robotics, intelligent signal analysis, and software security. His main research interests are in intelligent systems, especially mobile robots, machine vision, and software security
.
He is a member of SPIE, IEEE, International Society for Computers and Their Applications (ISCA), Sigma Xi, Finnish Pattern Recognition Society, and Finnish Artificial Intelligence Society (FAIS).

APTP+MS 2010:

Applied Problems in Theory of Probabilities and Mathematical Statistics Related to Modeling of Information Systems

Chair: Prof. Konstantin Samouylov (Peoples' Friendship University of Russia, Russia)

October 18, 2010, Room Elysees (floor 1)

08:45 – 10:45 Plenary session ICUMT (including all workshops), Shantan Hall, floor 1

10:45 – 11:00 Coffee break

11:00 – 12:30 Session I

Chair: Konstantin Samouylov (Peoples' Friendship University of Russia, Russia)

Analytical Model of Adaptive Traffic Carrying Signal Power Control
Gely Basharin (Peoples' Friendship University of Russia, Russia); Abel Konnon (People's Friendship University of Russia, Russia)

Analytical Model of Streaming and Elastic Traffic with Dynamic Channel Allocation Scheme
Gely Basharin (Peoples' Friendship University of Russia, Russia); Tatyana Aterekova (Peoples' Friendship University of Russia, Russia)

Dynamic channel allocation scheme with a queue for elastic traffic
Gely Basharin (Peoples' Friendship University of Russia, Russia); Sergei Shtatnov (Peoples' Friendship University of Russia, Russia)

On SIP Session Setup Delay Modeling in Next Generation Networks
Pavel Abaev (Peoples' Friendship University of Russia, Russia)

Recursive Computation for a Multi-Rate Model with Elastic Traffic and Minimum Rate Guarantees
Konstantin Samouylov (Peoples' Friendship University of Russia, Russia); Irina Gudkova (Peoples' Friendship University of Russia, Russia)

Analytical Modeling of P2PTV Network
Aminu Adamu (Peoples' Friendship University of Russia, Russia); Yuliya Gaidamaka (Peoples' Friendship University of Russia, Russia); Andrey Samuylov (Peoples' Friendship University of Russia, Russia)

The Resource Allocation Problem in the Design of Virtual Private Networks with Unicast and Multicast Connections
Mikhail Luzgachev (Peoples' Friendship University of Russia, Russia); Konstantin Samouylov (Peoples' Friendship University of Russia, Russia)

12:30 – 13:30 Lunch

13:30 – 15:30 Session II

Chair: Yury Khokhlov (Peoples' Friendship University of Russia, Russia)

Matrix-Analytical Approach to Analysis of a Single-Server Retrial Queue with Non-Reliable Removable Server
Dmitry Efrosinin (Peoples' Friendship University of Russia, Russia); Olga Semenova (Research and Development Company "INSET", Russia)

Waiting Characteristics of Queueing System Geo/Geo/1/∞ with Negative Claims and a Bunker for Superseded Claims in Discrete Time
Alexander Pechinkin (Institute of Informatics Problems, RAS, Russia); Rostislav Razumchik (Peoples' Friendship University of Russia, Russia)

The Mathematical Model of the Traffic Transfer Process with a Rate Adjustable by RED
Anna Korolkova (Peoples' Friendship University of Russia, Russia); Ivan Zaryadov (Peoples' Friendship University of Russia, Russia)

Modeling of Network Traffic
Ciro D'Apice (University of Salerno, Italy); Yury Khokhlov (Peoples' Friendship University of Russia, Russia); Olga Galaktionova (Tver State University, Russia); Michele Pagano (University of Pisa, Italy)

Transform- free analysis of an M/G/1/K queue with exceptional service and queue length dependent service time
Mitko Dimitrov (UNWE-Sofia, Bulgaria)

Multiagent Model for Jobs Flows Planning and Pricing in Distributed Computing Systems
Mikhail Konovalov (Institute of Informatics Problems, RAS, Russia)

Algorithm of nodes load estimation in the network with repetitions from source and static buffer management scheme
Yaver Agalarov (Institute of Informatics Problems, RAS, Russia)

15:30 – 16:00 Coffee break

16:00 – 17:45 Session III

Chair: Alexander Zeifman (Vologda State Pedagogical University, Russia)

Moment properties of queueing systems and networks
Evsey Morozov (Institute of Applied Mathematical Research, Karelian Research Centre, RAS, Russia); Alexander Rumyantsev (Institute of Applied Mathematical Research, Karelian Research Centre, RAS, Russia)

Regenerative analysis of a finite buffer fluid queue
Ruslana Goricheva (Institute of Applied Mathematical Research, Karelian Research Centre, RAS, Russia); Oleg Lukashenko (Institute of Applied Mathematical Research, Karelian Research Centre, RAS, Russia); Evsey Morozov (Institute of Applied Mathematical Research, Karelian Research Centre, RAS, Russia); Michele Pagano (University of Pisa, Italy)

On stability for $M_t/M_t/N/N$ queue
Alexander Zeifman (Vologda State Pedagogical University, Russia); Anna Korotysheva (Vologda State Pedagogical University, Russia); Yakov Satin (Vologda State Pedagogical University, Russia)

Consistency of statistical criteria and model transformation
Alexander Grusho (Moscow State University, Russia); Elena Timonina (Russian State University for the Humanities, Russia)

On the constants in the uniform and non-uniform versions of the Berry-Esseen inequality for Poisson random sums
Irina Shevtsova (Moscow State University, Russia); Julia Nefedova (Moscow State University, Russia)

Reconstruction of probability distributions of stochastic SAR Images
Oleg Shestakov (Moscow State University, Russia)

17:45 – 18:00 Closing of the Workshop

FOAN 2010:

The International Workshop on Fiber Optics in Access Networks - Passive Optical Network

Chair: Edvin Skaljo, BH Telecom, Bosnia and Herzegovina

October 18, 2010, Room 1450 (floor 14)

08:45 – 10:45 Plenary session ICUMT (including all workshops), Shantan Hall, floor 1

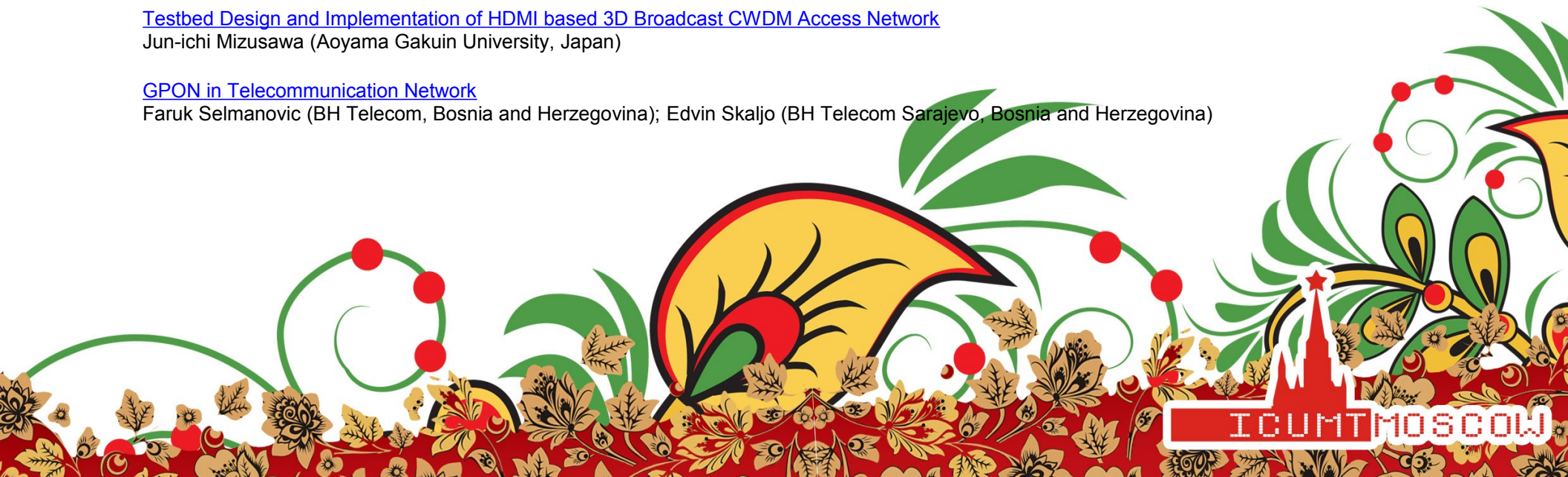
10:45 – 11:00 Coffee break

11:00 – 12:30 Technology and services session

Uganda's National Transmission Backbone Infrastructure Project: Technical Challenges and Way Forward
Tonny Bulega (Makerere University, Uganda); Apollo Kyeyune (Makerere University, Uganda); Paul Onek (Makerere University, Faculty of Computing and Information Technology, Uganda); Ronald Sseguya (Makerere University, Faculty of Computing and Information Technology, Uganda); Denis Mbabazi (Makerere University, Faculty of Computing and Information Technology, Uganda); Egrance Katwiremu (Makerere University, Faculty of Computing and Information Technology, Uganda)

Testbed Design and Implementation of HDMI based 3D Broadcast CWDM Access Network
Jun-ichi Mizusawa (Aoyama Gakuin University, Japan)

GPON in Telecommunication Network
Faruk Selmanovic (BH Telecom, Bosnia and Herzegovina); Edvin Skaljo (BH Telecom Sarajevo, Bosnia and Herzegovina)



12:30 – 13:30 Lunch

13:30 – 14:15 Keynote talk: Gerd Keiser: Applications of Photonic Devices to Life Sciences and Healthcare Systems

14:15 – 15:30 System performance and optical devices session. Session Chair – G. Kaiser

BER Performance of Free Space Optical (FSO) MIMO Systems in Severe Atomspheric Turbulence Channels
Salma Darwish (Arab Academy for Science and Technology, Egypt); Moustafa Hussein Aly (Arab Academy for Science, Technology & Maritime Transport, Egypt); Ahmed AboulSeoud (University of Alexandria, Faculty of Engineering, Egypt)

Measurement of optical power in the upstream of PON signal from a single ONU at the side of the central office by Optical Power meter
Edvin Skaljo (BH Telecom Sarajevo, Bosnia and Herzegovina); Aljo Mujcic(University of Tuzla, Bosnia and Herzegovina)

Wavelength-tunable Er3+-doped fs mode-locked fiber laser using fundamental mode cutoff filters
Nan-Kuang Chen (National United University, Taiwan); Kuei-Chu Hsu(National Central University, Taiwan); Jim-Wein Lin (National Tsing Hua University, Taiwan); Feng-Zhou Liu (National United University, Taiwan); Yi-Ning Chen (National United University, Taiwan); Shien-Kuei Liaw (National Taiwan University of Sciene & Technology, Taiwan); Jui-Ming Hsu (National United University, Taiwan); Alina Manshina (St. Petersburg State University, Russia); Yuriy Tver'yanovich (St. Petersburg State University, Russia)

Status Monitoring Concept for a WDM PON
Gerd Keiser (National Taiwan University of Science and Technology, Taiwan)

15:30 – 16:00 Coffee break

16:00 – 17:30 Technical Session

Optical Transmission Performance for DML considering Laser Chirp and Fiber Dispersion using AMOOFDM
Ahmed Gharba (Orange Labs, France); Philippe Chanclou (France Telecom R&D, France); Meryem Ouzzif (Orange Labs, France); Jйrome Le Masson(CREC Saint Cyr, France); Naveena Genay (Orange Labs, France); Benoit Charbonnier (Orange Labs, France); Emmanuel

Grard (3SPhotonics, France); Victor Rodrigues (3SPhotonics, France); Maryline Hйlard (INSA Rennes, France); Luiz Anet Neto (Orange Labs, France)

Dispersion Management and Gain Flattened a hybrid EDFA/RFA with Pumping Recycling Mechanism
Shien-Kuei Liaw (National Taiwan University of Sciene & Technology, Taiwan); Yu-Sheng Huang (National Taiwan University of Science and Technology, Taiwan); Hsin-Kai Hung (National Taiwan University of Sci. and Tech., Taiwan); Nan-Kuang Chen (National United University, Taiwan);Kuei-Chu Hsu (National Central University, Taiwan); Yu Yi- Lin (National Taiwan Unversity Science and Technology, Taiwan); Ting Wang (National Taiwan University of Sci. and Tech.,, Taiwan); Alina Manshina (St. Petersburg State University, Russia); Yuriy Tver'yanovich (St. Petersburg State University, Russia)

Delay Bound Analysis for Hybrid Networks:Interoperable IEEE 802.11b/g WLAN over Fiber
Erna Sugesti (Institut Teknologi Telkom, Indonesia); Purnomo Priambodo(Universitas Indonesia, Indonesia); Kalamullah Ramli (Universitas Indonesia, Indonesia); Bagio Budiardjo (Electrical Engineering Department, University of Indonesia, Indonesia)

OPNTDS 2010:
Optical Networking Technologies and Data Security

Chair: Prof.(Dr.) S.K.Sudheer, Department of Optoelectronics, University of Kerala, Thiruvananthapuram, India

October 18, 2010, Room Versailles (floor 1)

08:45 – 10:45 Plenary session ICUMT (including all workshops), Shantan Hall, floor 1

10:45 – 11:00 Coffee break

11:00 – 12:30 Technical Session

Extra Low Weight FSO System Aiming Laser
Sergey Biryuchinskiy (St.-Pb. University of IT, Mechanics and Optics, Russia); Konstantin Melnikov (Laser & Information Technologies Co, Ltd., Belarus)

A Neural Network Based approach for Fingerprint recognition system
Avinash Kumar Jha (Vellore Institute of technology University, India);Supriya Narasimham (VIT University, India); Sudheer Sreedhara Krishna(Hindustan University (Hindustan Institute of Technology and Science), India); V P Mahadevan Pillai (University of Kerala, India)

Design and Analysis of a Tunable Optical Channel Drop Filter Based on High Index Contrast Si/Air Broadband Reflectors
Renil Kumar (SSN College of Engineering, India); Prita Nair (SSN College of Engineering, India)

Watermarking on PCAS Compressed Images
Krishnakumar V (University of Kerala, India); Kochunarayanan K (University of Kerala, Department of Optoelectronics, India)

Multiband Behavioural Analysis of a Higher Order Fractal Patch Antenna
Krishnakumar V (University of Kerala, India)

12:30 – 13:30 Lunch

13:30 – 15:30 Technical Session

Hardwired Data Security Using Smart-Metric Algorithm
Gaurav Sharma (Hindustan University, India); Mathan Kumar (Hindustan University, India); Mohammed Iris (Hindustan University, India); Sandhya Jayaraman (Anna University, India)

Advanced Image Encryption and Decryption Using Sandwich Phase Diffuser and False Image along with Cryptographical Enhancement
Abraham Oommen Panicker (VIT University, India); Mujeeb A (Cochin University of Science and Technology, India); A Jabeena (Assistant Professor Senior Grade, India)

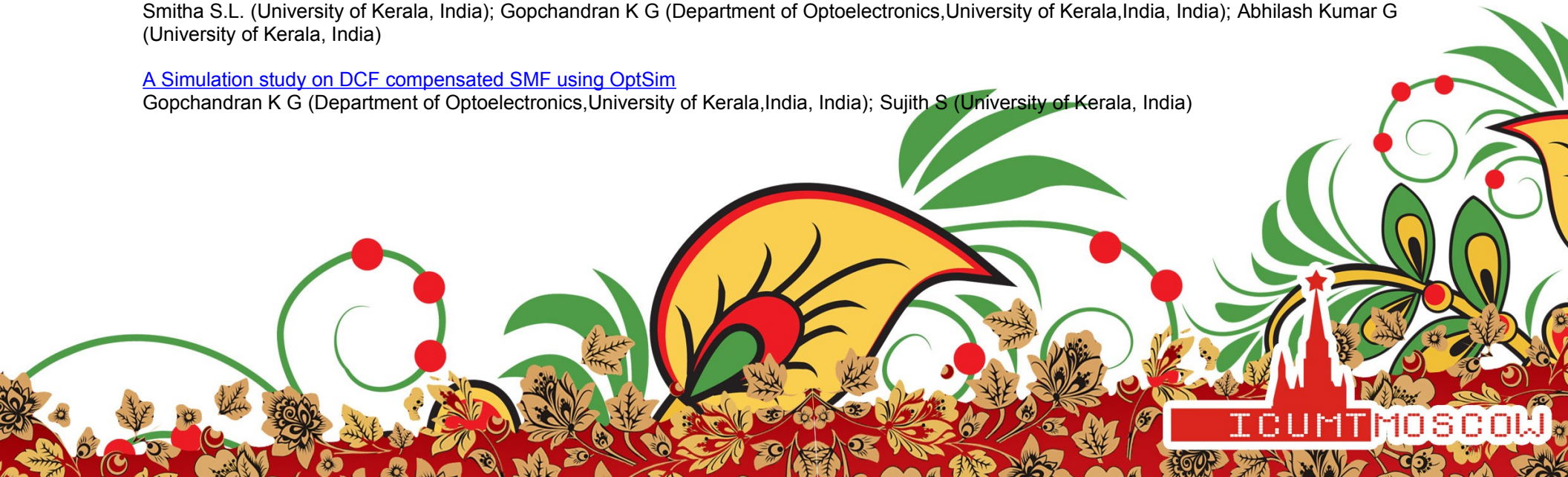
Motion Interpolation Using Inter frame Coding for Block Motion Picture
R. Vinolee (Hindustan University, India); Vijayalakshmi J (KONGU ENGINEERING COLLEGE, India)

15:30 – 16:00 Coffee break

16:00 – 19:00 Technical Session

Surface Plasmon Resonance Engineering of Gold Nanoparticles Using Off-axis PLD Technique
Smitha S.L. (University of Kerala, India); Gopchandran K G (Department of Optoelectronics,University of Kerala,India, India); Abhilash Kumar G (University of Kerala, India)

A Simulation study on DCF compensated SMF using OptSim
Gopchandran K G (Department of Optoelectronics,University of Kerala,India, India); Sujith S (University of Kerala, India)



Information Encryption and Decryption using Hyperchaotic systems in Delayed Nonlinear Feedback Systems
Gopchandran K G (Department of Optoelectronics,University of Kerala,India, India); Gopakumar K (TKM College of Engineering, India); Premlet B (University of Kerala, India)

Color Image Encryption and Decryption based on Jigsaw Transform Employed at the Input Plane of a Double Random Phase Encoding System

Ratheesh kumar M (University of Kerala, India); Sudheer Sreedhara Krishna (Hindustan University (Hindustan Institute of Technology and Science), India); V P Mahadevan Pillai (University of Kerala, India)

Modeling And Simulation Of Photonic Crystal Fiber Structure For Single Mode Polarization For Fiber Laser Applications
Sujitha Puthukodan (The University of Kerala, India); Sudheer Sreedhara Krishna (Hindustan University (Hindustan Institute of Technology and Science), India); Dhruba Biswas (Bhabha Atomic Research Centre, India);V P Mahadevan Pillai (University of Kerala, India)

ASNC 2010:
The Workshop on Advanced Sensing, Networking and Control

Chair: Liu Hui (Beihang University, China)

October 18, 2010, Room 1950 (floor 19)

08:45 – 10:45 Plenary session ICUMT (including all workshops), Shantan Hall, floor 1

10:45 – 11:00 Coffee break

11:00 – 12:30 Technical Session I: Design and modeling for networking

A regional dangerous information service system using mobile communication and WEB map delivery technology
Xiaoping Ling (kanagawa Institute of Technology, Japan)

Configuration of Alarm Wireless Sensor Element
Mark Sh. Levin (Institute for Information Transmission Problems, Russian Academy of Sciences, Russia); Alexander Fimin (NetCracker Technologies, Russia)

Design and Implementation of Client Agent in the Network Admission Control
CuiJiao Fu (Beihang University, P.R. China); Qinghua Cao (Beihang University, P.R. China)

Simulation modelling and analysis of a realistic radio channel model for V2V communications

Maria Kihl (Lund University, Sweden); Kaan Bьr (Lund University, Sweden); Fredrik Tufvesson (Lund University, Sweden); Juan Luis Aparicio Ojea (Lund University, Sweden)

Advanced Vehicular Sensor System
Javad Yazdani (University of Central Lancashire, United Kingdom); Trevor Holden (University of Central Lancashire, United Kingdom)

12:30 – 13:30 Lunch

13:30 – 15:30 Technical Session II: Algorithm Development for networking

3-D Localization Algorithm of Time-Changed Wireless Sensor Networks Based on Initial Topographical Information and Its Engineering Application
Hua Deng (University of Electronic Science and Technology of China, P.R. China); Yao Xu (Southwest Jiaotong University of China, P.R. China)

Cross-layer Optimal Policies for Stochastic Reliable Transmission in Wireless Sensor Networks
Bin-bin Xiong (Tsinghua University, P.R. China); Jia Liu (Tsinghua University, P.R.China); Chuang Lin (Tsinghua University, P.R. China); Fengyuan Ren (Tsinghua University, P.R. China)

A Window-based Optimization of Energy Detection in Time-varying Channels
Qin Zhenquan (Dalian University of Technology, P.R. China); Li Lin (Dalian University of Technology, P.R. China); Sun Weifeng (Dalian University of Technology, P.R. China); Lei Wang (Dalian University of Technology, P.R. China)

A Cognitive based Spectrum Sharing Scheme for LTE Advanced Systems
Xinsheng Zhao (Southeast University, P.R. China); ZhiYi Guo (Southeast University, P.R. China); Qiang Guo (Southeast University, P.R. China)

EHRP: Novel Energy-aware Hierarchical Routing Protocol in Wireless Sensor Network
Amir Mollanejad (Islamic Azad University-Jolfa, Iran); Leili Mohammad Khanli (Science University of Tabriz, Iran); Mohammad Zeynali (Islamic Azad University-Bostanabad, Iran); Hadi Bahrbegi (Amir Azimi Alasti Islamic Azad University-Shabestar, Iran)

15:30 – 16:00 Coffee Break

16:00 – 17:20 Technical Session III: Theory application for networking

A DNA and Amino Acids-Based Implementation of Playfair Cipher
Mona Sabry (Ain Shams University, Egypt); Mohamed Hashem (Ain Shams University, Egypt); Taymoor M. Nazmy (Ain Shams University, Egypt)

Distributed Control Based on Tie-Set Graph Theory for Smart Grid Networks
Kiyoshi Nakayama (Soka University, Japan); Norihiko Shinomiya (Soka University, Japan)

Mobile Sensor Network Deployment Using Cellular Learning Automata Approach
Maryam Kalantary (Azad university in Qazvin, Iran); Mohammad Reza Meybodi (Amirkabir University of Technology, Iran)

Application examples of the network fixed point theory for space-air-ground integrated communication network
Hui Liu (Beihang University, P.R. China); Jun Zhang (Beihang University, P.R. China); L L Cheng (City University of Hong Kong, P.R. China)

SoS 2010:

The International Workshop on System of Systems

Chairs: Dr. Alex Gorod (Stevens Institute of Technology, USA), Dr. Alexander Fridman (Russian Academy of Science, Russia), Dr. Brian Sauser (Stevens Institute of Technology, USA)

October 18, 2010, Room 1650 (floor 16)

08:45 – 10:45 Plenary session ICUMT (including all workshops), Shantan Hall, floor 1

10:45 – 11:00 Coffee break

11:00 – 11:10 Opening Remarks, A. Gorod, Stevens Institute of Technology, (USA)

11:15 – 11:40 Keynote: Overview of SoS Cases Around the World and Especially in Australia, V. Ireland, University of Adelaide, (Australia)

11:45 – 12:10 **A Personal History in System of Systems**, B. White, CAUSES, (USA)

12:15 – 12:40 **Incremental Coordination in Collaborative Networks**, A. Fridman, Institute for Informatics and Mathematical Modelling, Kola Science Centre of Russian Academy of Science, (Russia), O. Fridman, Institute for Informatics and Mathematical Modelling, Kola Science Centre of Russian Academy of Science, (Russia)

12:40 – 13:40 Lunch

13:40 – 14:05 Keynote: INCOSE Russian Chapter Approach to Enabling System of Systems Engineering, A. Levenchuk, International Council on Systems Engineering (INCOSE), (Russia)

14:10 – 14:35 A Quantitative Approach to Analysis of a System of Systems Operational Boundaries, A. Gorod, Stevens Institute of Technology, (USA), A. Fridman, Russian Academy of Science, (Russia), B. Sauser, Stevens Institute of Technology, (USA)

14:40 – 15:05 Network Effects and Institutional Filters: a Piece of New Reality for Economic Systems of Systems, R. Nizhegorodtsev, Institute for Control Studies Russian Academy of Science, (Russia)

15:10 – 15:35 The System of Interests Conciliation in the Management of an Enterprise Within the Vertically Integrated Structure, V. Tsukerman, The Luzin Institute for Economic Studies, (Russia), I. Selin, The Luzin Institute for Economic Studies, (Russia), L. Ivanova, The Luzin Institute for Economic Studies, (Russia)

15:35 – 16:00 Coffee Break

16:00 – 16:25 Invited Talk: Russian Smart Grid System of Systems Engineering, E. Naumov, INVEL, (Russia)

16:30 – 16:55 A Framework for Performance Based Logistics - A System of Systems Approach, D. Nowicki, School of Systems and Enterprises, Stevens Institute of Technology, (USA), W.S. Randall, Auburn University, (USA), A. Gorod, Stevens Institute of Technology, (USA)

17:00 – 17:25 A Framework for Decision Making in Extended Enterprises: the FAA NextGen Case, H. Darabi, Stevens Institute of Technology, (USA) M. Mansouri, Stevens Institute of Technology, (USA) N. Andalibi, Stevens Institute of Technology, (USA)

17:30 – 17:55 Ultra-High Speed Wireless System Technology From a System of Systems Perspective, B. Heydari , Stevens Institute of Technology, (USA), M. Mansouri, Stevens Institute of Technology, (USA)

WMCNT 2010:

The 2nd International Workshop on Mobile Computing and Networking Technologies

Chairs: Georgios I. Tsiropoulos and Dimitros G. Stratogiannis, National Technical University of Athens (NTUA), Greece

October 18, 2010, Room 1550 (floor 15)

08:45 – 10:45 Plenary session ICUMT (including all workshops), Shantan Hall, floor 1

10:45 – 11:00 Coffee break

11:00 – 12:30 Seesion 1: Link Quality and Access Techniques for Wireless Communications

BER Analysis of Dual-Carrier Modulation (DCM) over Rayleigh Fading Channel
Hyun-Seok Ryu (Korea University, Korea); Jun-Seok Lee (Korea university, Korea); Chung G. Kang (Korea University, Korea)

Modeling and Statistical Characterization of Wideband Indoor Radio Propagation Channels
Yuanyuan Ma (University of Agder, Norway); Matthias Pдtzold (University of Agder, Norway)

Supply and Demand, a Dynamic Topology Control Method for Mesh Networks
Daniel Camara (EURECOM, France); Christian Bonnet (Institut Eurecom, France)

12:30 – 13:30 Lunch

13:30 – 15:30 Session 2: “Mobile Communications and Heterogeneous Networking”

REF: Resilience Evaluation Framework
Bruno Miguel Sousa (University of Coimbra, Portugal); Kostas Pentikousis (Huawei Technologies, Germany); Marilia Curado (University of Coimbra, Portugal)

QoS-Guaranteed Local Mobility Management with Dual Tunnel in Heterogeneous Wireless Networks
Jong Tae Park (Kyungpook National University, Korea); Seung-Man Chun (Kyungpook National University, Korea)

Enabling Roaming management in GPRS and WLAN networks based on SIP
Dulce Selene Rosas Mendieta (Universidad de La Ciйnega del Estado de Michoacбn de Ocampo, Mexico); Octavio Ramirez (Instituto Tecnologico de Jiquilpan, Mexico)

Performance Modeling of Web Access over HSPA Networks
Manuel Alvarez-Campana (Universidad Politecnica de Madrid, Spain); Enrique Vazquez (Universidad Politйcnica de Madrid, Spain); Joan Vinyes (Universidad Politйcnica de Madrid, Spain)

15:30 – 16:00 Coffee break

October 19, 2010, Room 1550 (floor 15)

Plenary session, room Pushkin 1+2+3, floor 20

09:00 – 09:45 Keynote Prof. Antonio Bicchi (University of Pisa, Italy): Towards a Society of Robots Behaviors, Misbehaviors, Consensus and Security

09:45 – 10:30 Keynote Prof. Juha Ronning (University of Oulu, Finland): Human-Machine Interface

10:30 – 11:00 Coffee break

11:00 – 13:00 Tutorial Session: "Wireless Broadband Networks: Standardization, Issues and Challenges" performed by Dr. Periklis Chatzimisios

13:00 – 14:00 Lunch

14:00 – 15:30 Session 3: "Recent Advances in Ad-Hoc and Sensor Networks"

Store and Haul with Repeated Controlled Flooding
Tyson Thedinger (The University of Kansas, USA); Abdul Jabbar (The University of Kansas, USA); James P. G. Sterbenz (University of Kansas & Lancaster University (UK), USA)

An extended framework for the development of WSN applications
Luigi Pomante (University of L'Aquila, Italy); Luciano Lavagno (Politecnico di Torino, Italy); Stefano Olivieri (MathWorks, Italy); Mohammad Mozumdar (University of California, Berkeley, USA); Antonio Spinosi (University of L'Aquila, Italy)

Cross-layer tuning of the neighbor sensing mechanism in mobile ad hoc networks
Nicolas Letor (University of Antwerp, Belgium); Chris Blondia (University of Antwerp, Belgium)

15:30 – 16:00 Coffee Break

16:00 – 18:00 Session 4: "Research Advances in MAC – Layer for Wireless Communications

Energy-Efficient MAC Protocols for Wireless Body Area Networks: Survey
Gopalan Sai Anand (Kyungpook National University, Korea); Jong Tae Park (Kyungpook National University, Korea)

An In-Depth Study of Asynchronous MAC Protocols with Low Power Listening
Maria Chondronasiou (Aristotle University of Thessaloniki, Greece); Polyxeni Papadia (Aristotle University of Thessaloniki, Greece); Eirini Karapistoli (Aristotle University of Thessaloniki, Greece); Fotini-Niovi Pavlidou (Aristotle University of Thessaloniki, Greece)

GWM-MAC Protocol for High-Throughput Backbone Wireless Mesh Networks Operating within 60-80 GHz
Vladimir Vishnevsky (Russian Academy of Sciences, Russia); Andrey Larionov (ZAO Research and Development Company "INSET", Russia)

A Novel Fair Mapping Scheme for IEEE 802.16 Downlink Sub-Frame
Panagiotis Sarigiannidis (Aristotle University Thessaloniki, Greece); Malamati D Louta (University of Western Macedonia, Greece); Periklis Chatzimisios (Alexander TEI of Thessaloniki, Greece)

Modifying the HIPERLAN/1 CAC Layer Protocol for Intermittent Connectivity
Constantine Coutras (Pace University, USA)

RNDM 2010:

The 2nd International Workshop on Reliable Networks Design and Modeling

Chair: Dr. Jacek Rak (Gdansk University of Technology, Poland)

October 19, 2010, Room Elysees (floor 1)

09:00 – 09:30 Opening Session

09:30 – 10:30 Keynote Talk I Three More Aspects of Resilience: Multi-Domain, Multicast, Physical Impairments

Tibor Cinkler (Budapest University of Technology and Economics, HU)

Chair: Jacek Rak (Gdansk University of Technology, PL)

Abstract

The networks tend to become increasingly heterogeneous, and new services, new aspects appear all the time. In this talk we will not focus to new techniques of protecting and restoring classical point-to-point connection, but rather to new problems that are induced by new architectures, new services, and new technologies.

This talk will address three areas. First, tricks will be revealed for performing a kind of shared protection in such an multi-domain environment where routing information is not available due to the confidentiality between competing operators. Second, evaluation of methods for restoring and protecting trees used for Ethernet Spanning Trees (STP) or for Multicasting video contents is presented. Third, the impact of restoration and protection techniques onto the signal quality due to the physical impairments in optical networks is discussed.

Tibor Cinkler [MIEEE'95] has received M.Sc.('94) and Ph.D.('99) degrees from the Budapest University of Technology and Economics (BME), Hungary, where he is currently associate professor at the Department of Telecommunications and Media Informatics (TMIT). His research interests focus on optimisation of routing, traffic engineering, design, configuration, dimensioning and resilience of IP, Ethernet, MPLS, ngSDH, OTN and particularly of heterogeneous GMPLS-controlled WDM-based multilayer networks. He is author of over 180 refereed scientific publications and of 4 patents.

He has been involved in numerous related European and Hungarian projects including ACTS METON and DEMON; COST 266, 291, 293; IP NOBEL I and II and MUSE; NoE e-Photon/ONe, e-Photon/ONe+ and BONE; CELTIC PROMISE and TIGER2; NKFP, GVOP, ETIK; and he has been member of ONDM, DRCN, BroadNets, AccessNets, IEEE ICC and Globecom, EUNICE, CHINACOM, Networks, WynSys, ICTON, etc. Scientific and Program Committees. He has been guest editor of a Feature Topic of the IEEE ComMag and reviewer for many journals. He has chaired/organised DRCN 2001, ONDM 2003 and Networks 2008 conferences in Budapest.

He teaches various courses on networking and optimisation at the university, as well as for companies and also gives tutorials at conferences and summer and winter schools. He received numerous awards including: Dimitris Chorafas Prize for Engineering, ICC best paper award, numerous HTE awards (HTE is the Hungarian IEEE sister society) (including Tivadar Puskas, Virag-Pollak 3 times, and the 60-year anniversary medal Bolyai Medal, etc.

10:30 – 11:00 Coffee Break

11:00 – 13:00 Technical Session I Fault Management and Control in Survivable Networks

Chair: Tibor Cinkler (Budapest University of Technology and Economics, HU)

1. A Meta-Heuristic Approach for Monitoring Trail Assignment in WDM Optical Networks
   Ahmed Haddad (Telecom ParisTech, FR); Elias A. Doumith (TELECOM ParisTech, FR); Maurice Gagnaire (Ecole Nationale Superieure des Telecommunications, FR)
2. Formal Analysis Approach on Networks with Dynamic Behaviours
   Gayan de Silva (Brno University of Technology, CZ); Petr Matousek (Brno University of Technology, CZ); Ondrej Rysavy (Brno University of Technology, CZ); Miroslav Sveda (Brno University of Technology, CZ)
3. Analyzing Causes of Failures in the Global Research Network Using Active Measurements
   Eugene Myakotnykh (Norwegian University of Science and Technology, NO); Bjarne E. Helvik (Norwegian University of Science and Technology, NO); Otto J Wittner (UNINETT, NO)
4. Failure Localization in Transparent Optical Networks
   Dimitri Staessens (Ghent University - IBBT - IMEC, BE); Konstantinos Manousakis (University of Patras, GR); Uri Mahlab (Ecitele, IL); Didier Colle (IBBT - Ghent University, BE); Mario Pickavet (Ghent University, BE); Emmanouel Varvarigos (University of Patras, GR); Piet Demeester (Ghent University, BE)

13:00 – 14:00 Lunch

14:00 – 15:30 Technical Session II Survivability of Anycast, Multicast and Overlay Networks

Chair: Dimitri Staessens (Ghent University - IBBT - IMEC, BE)

1. A Mixed Integer Programming Model for Multicast Routing with Multipath Delay Jitter Reduction
   Matin Bagherpour (Norwegian University of Science and Technology, NO); Oivind Kure (NTNU, NO)
2. Survivability of Anycast and Unicast Flows under Attacks on Networks
   Jacek Rak (Gdansk University of Technology, PL); Krzysztof Walkowiak (Wrocław University of Technology, PL)
3. Link Availability Mapping in Infrastructure-based Overlay Networks
   Peera Pacharintanakul (University of Pittsburgh, US); David Tipper (University of Pittsburgh, US)

4. Optimal Results for Anycast-Protecting p-Cycles Problem
   Adam Smutnicki (Wroclaw University of Technology, PL); Krzysztof Walkowiak (Wrocław University of Technology, PL)

15:30 – 16:00 Coffee Break

16:00 – 17:30 Technical Session III Fast Service Recovery

Chair: Otto Wittner (UNINETT, NO)

1. Using AR(I)MA-GARCH Models for Improving the IP Routing Table Update
   Wouter Tavernier (Ghent University - IBBT, BE); Dimitri Papadimitriou (Alcatel-Lucent Bell, BE); Didier Colle (IBBT - Ghent University, BE); Mario Pickavet (Ghent University, BE); Piet Demeester (Ghent University, BE)
2. WDM Network Re-optimization Avoiding Costly Traffic Disruptions
   Fernando Solano Donado (Warsaw University of Technology, PL); Michał Pióro (Warsaw University of Technology, PL; Lund University, SE)
3. Dynamic Alternative Routing with Local Protection Paths in MPLS Networks
   Catarina Francisco (Nokia Siemens Networks S.A., PT); Lucia Martins (University of Coimbra, PT); Joao Redol (Nokia Siemens Networks S.A., PT); Paulo Monteiro (Nokia Siemens Networks Portugal, PT)
4. Experimental Implementation of an IPTV Architecture Based on Content Delivery Network Managed by VPLS Technique
   Sergio Pompei (Fondazione Ugo Bordoni, IT); Alessandro Valenti (Fondazione Ugo Bordoni, IT)

October 20, 2010, Room Elysees (floor 1)

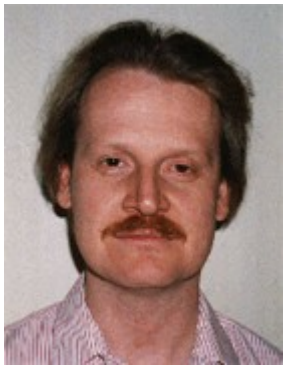
09:30 – 10:30 Keynote Talk II **Evaluation of Network Resilience and Survivability: Analysis, Simulation, and Experimentation**

James P.G. Sterbenz (University of Kansas & Lancaster University, UK, US)

Chair: Krzysztof Walkowiak (Wrocław University of Technology, PL)

Abstract

As the Internet becomes increasingly important to all aspects of society, the consequences of disruption are increasingly severe. Thus it is critical to increase the resilience and survivability of the future networks in general, and the Internet in particular. We define resilience as the ability of the network to provide desired service even when the network is challenged by attacks, large-scale disasters, and other failures. Resilience subsumes the disciplines of survivability, fault-tolerance, disruption-tolerance, traffic-tolerance, dependability, performability, and security. After an introduction to the disciplines and challenges to network resilience, this presentation will discuss analytical, simulation, and experimental emulation techniques for understanding, evaluating, and improving the resilience of the Future Internet. This includes a multilevel state-space based approach that plots network service delivery against operational state that is the basis for both mathematical- and simulation-based analysis, and approaches that embed fundamental properties such as redundancy and diversity into all aspects of network structure, mechanism, and protocols.



Prof. Dr. James P.G. Sterbenz is Associate Professor of Electrical Engineering & Computer Science and a member of technical staff at the Information & Telecommunication Technology Center at the University of Kansas, and is a Visiting Professor of Computing in InfoLab 21 at Lancaster University in the UK. He has previously held senior staff and research management positions at BBN Technologies, GTE Laboratories, and IBM Research. His research interests include resilient, survivable, and disruption tolerant networking, future Internet architectures, active and programmable networks, and high-speed networking and components. He is director of the ResiliNets Research Group, currently PI in the NSF-funded FIND and GENI programs, the EU-funded FIRE ResumeNet project, leads the GpENI international programmable network testbed project, and leads a US DoD project in highly-mobile ad hoc disruption-tolerant networking. He received a doctorate in computer science from Washington University in 1991. He has been program chair for IEEE GI, GBN, and

HotI; IFIP IWSOS, PfHSN, and IWAN; and is on the editorial board of IEEE Network. He is principal author of the book High-Speed Networking: A Systematic Approach to High-Bandwidth Low-Latency Communication.

10:30 – 11:00 Coffee Break

11:00 – 12:30 Technical Session IV Methods for Measurement, Evaluation, or Validation of Survivability

Chair: Teresa M. Gomes (University of Coimbra, PT)

1. Inaccuracy of Availability Metrics Estimated by the Serial-Parallel Model
   Janos Szigeti (Budapest University of Technology and Economics, HU); Tibor Cinkler (Budapest University of Technology and Economics, HU)

2. A Comprehensive Framework to Simulate Network Attacks and Challenges
   Egemen K Cetinkaya (University of Kansas, US); Dan Broyles (University of Kansas, US); Amit Dandekar (University of Kansas, US); Priya Srinivasan (University of Kansas, US); James P. G. Sterbenz (University of Kansas & Lancaster University, UK, US)

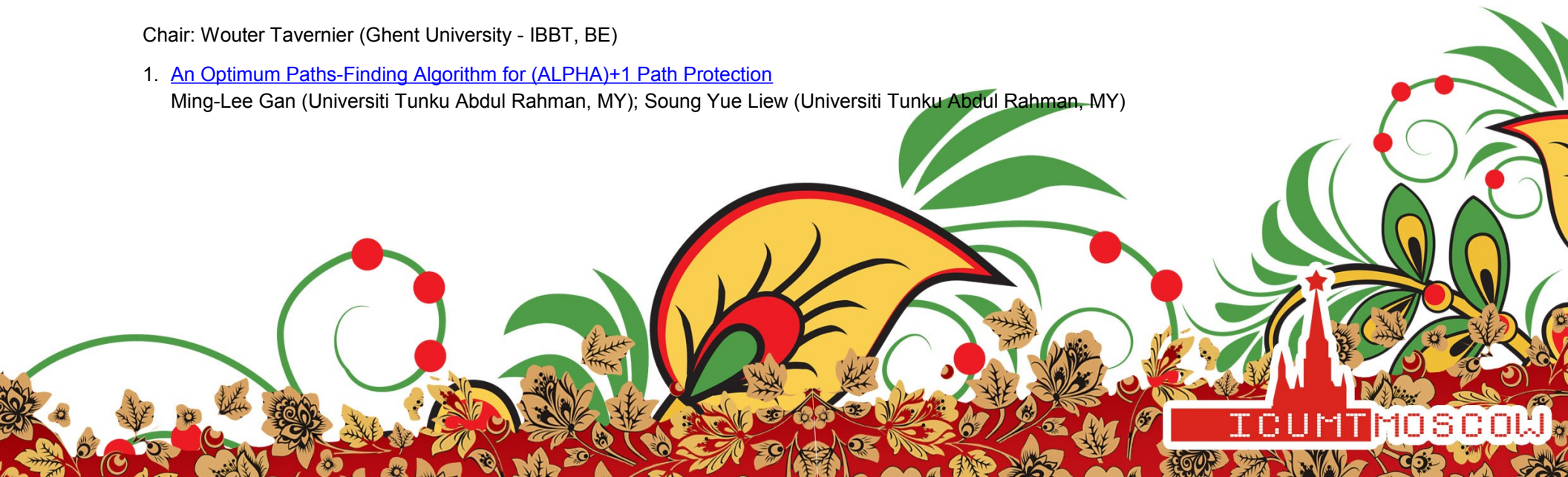
3. Survivability of the MAP/PH/N Queue with Propagated Failures
   Khalid Al-Begain (University of Glamorgan, UK); Alexander N. Dudin (Belarusian State University, BY); Valentina I. Klimenok (Belarusian State University, BY)

13:00 – 14:00 Lunch

14:00 – 15:30 Technical Session V Design of Dedicated/Shared Backup Paths

Chair: Wouter Tavernier (Ghent University - IBBT, BE)

1. An Optimum Paths-Finding Algorithm for (ALPHA)+1 Path Protection
   Ming-Lee Gan (Universiti Tunku Abdul Rahman, MY); Soung Yue Liew (Universiti Tunku Abdul Rahman, MY)



2. On the Complexity of Computing Shortest Fast Reroute Paths
   Aubin Jarry (University of Geneva, CH)
3. Obtaining a SRLG-Disjoint Path Pair of Min-Sum Cost
   Teresa M. Gomes (University of Coimbra, PT); Luis Fernandes (University of Coimbra, PT)
4. Linear Programming Approach to Link Capacity Design for Shared Protection
   Ryutaro Matsumura (NTT, JP); Masayuki Tsujino (NTT, JP); Haruhisa Hasegawa (NTT, JP)

15:30 – 16:00 Coffee Break

16:00 – 17:30 Technical Session VI Models and Algorithms of Survivable Networks Design and Modeling

Chair: Peera Pacharintanakul (University of Pittsburgh, US)

1. A Risk Management Approach to Resilient Network Design
   Korn Vajanapoom (University of Pittsburgh, US); David Tipper (University of Pittsburgh, US); Sira Akavipat (University of Pittsburgh, US)
2. The Weighted Graphs Approach for the GMPLS Network Reliability Enhancement
   Paweł Różycki (University of Information Technology and Management, PL); Andrzej Jajszczyk (AGH University of Science and Technology, PL)
3. IEEE 802.11n Based Wireless Backhaul Enabled by Dual Channel IPT (DCH-IPT) Relaying Protocol
   Ehab Mahmoud Mohamed (Kyushu University, JP)
4. Adaptive Rate Network Coding using Raptor Codes for Large Wireless Relay Networks
   Sujung Yoo (Gwangju Institute of Science and Technology, KR)

17:45 – 18:30 Panel Discussion Future Research in Reliable Networks

Chair: Maurice Gagnaire (Ecole Nationale Superieure des Telecommunications, FR)

Panelists: Tibor Cinkler (Budapest University of Technology and Economics, HU), Maurice Gagnaire (Ecole Nationale Superieure des Telecommunications, FR), Teresa M. Gomes (University of Coimbra, PT), Jacek Rak (Gdansk University of Technology, PL), Dimitri Staessens (Ghent University - IBBT - IMEC, BE), James P.G. Sterbenz (University of Kansas & Lancaster University, UK, US), Krzysztof Walkowiak (Wroclaw University of Technology, PL)

18:30 – 18:45 RNDM Closing Session + RNDM Best Paper Award