2013 5th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops

(ICUMT 2013)

Almaty, Kazakhstan
10-13 September 2013

Program

RNDM'13 S1: Opening Session

RNDM'13 S2: Keynote Talk

Do energy efficiency strategies necessarily conflict with reliability in wireless and wired networks?

ICUMT'13: Opening Session

ICUMT'13: Keynote Talk

Comparative analysis of efficiency of IP traffic handover mechanisms in IEEE 802.11 wireless local area networks

ICUMT'13: Telecommunications I

On the performance of channel occupancy detectors for Vehicular Ad-Hoc networks
Giulio Ministeri (University of Padova, Italy); Lorenzo Vangelista (University of Padova, Italy)
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Vehicular Ad Hoc Networks for Joint Traffic and Mobility Management
Marcin Seredynski (Public Research Centre Henri Tudor, Luxemburg); Wojciech Mazurczyk (Warsaw University of Technology & Faculty of Electronics and Information Technology, Institute of Telecommunications, Poland); Krzysztof Szczypiorski (Warsaw University of Technology, Poland); Djamel Khadraoui (CRP Henri Tudor, Luxemburg)
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Network Steganalysis: Detection of Steganography in IEEE 802.11 Wireless Networks
Szymon Grabski (Warsaw University of Technology, Poland); Krzysztof Szczypiorski (Warsaw University of Technology, Poland)
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Steganography in WiMAX Networks
Iwona Grabska (Warsaw University of Technology & Institute of Telecommunications, Poland); Krzysztof Szczypiorski (Warsaw University of Technology, Poland)
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Network planning for Intelligent Transportation Systems Based on Existing Wireless Networks
Kira A. Kastell (Fachhochschule Frankfurt am Main - University of Applied Sciences, Germany)
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Survey on features of millimeter wave communication networks
Aleksandr Timoshenko (National Research University of Electronic Technology (MIET), Russia); Leonid Pertsev (Moscow Institute of Electronic Technology (Technical University), Russia); Ksenia Lomovskaya (Moscow Institute of Electronic Technology (Technical University), Russia); Alexey Smirnov (National Research University of Electronic Technology, Russia)
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RNDM'13 S3: Network reliability assessment

On the Fitness of Geographic Graph Generators for Modelling Physical Level Topologies
Egemen K. Çetinkaya (University of Kansas, USA); Mohammed J.F. Alenazi (The University of Kansas, USA); Yufei Cheng (University of Kansas, USA); Andrew Peck (The University of Kansas, USA); James P. G. Sterbenz (University of Kansas & Lancaster University (UK), USA)
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Path Geo-diversification: Design and Analysis
  Yufei Cheng (University of Kansas, USA); James P. G. Sterbenz (University of Kansas & Lancaster University (UK), USA); Junyan Li (University of Kansas, USA)
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Evaluating Geographic Topological Vulnerabilities
  Xuelian Long (University of Pittsburgh, USA); David Tipper (University of Pittsburgh, USA); Teresa Gomes (University of Coimbra & INESC COIMBRA, Portugal)
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ICUMT'13: Keynote Talk

Green Communications in White Spaces

RNDM'13 S4: Survivability of WDM-based networks

Shared Path Protection for Distance Adaptive Elastic Optical Networks under Dynamic Traffic
  Cicek Cavdar (Royal Institute of Technology (KTH), Sweden)
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Survivable Multicast Routing in Mixed-Graph Sparse-Splitting Optical Networks
  Costas Constantinou (University of Cyprus, Cyprus); Georgios Ellinas (University of Cyprus, Cyprus)
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A New Approach to Optimization of p-Cycle Protected Multicast Optical Networks
  Adam Smutnicki (Wroclaw University of Technology, Poland); Krzysztof Walkowiak (Wroclaw University of Technology, Poland)
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Optimum Logical Topology Routing in an IP-Over-WDM Optical Network and Physical Link Failure Localization: An Integrated Approach
  Tachun Lin (Cameron University, USA); Zhili Zhou (IBM Research Collaboratory & IBM, Singapore); Krishnaiyan Thulasiraman (University of Oklahoma, USA); Guoliang Xue (Arizona State University, USA)
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ICUMT'13: Telecommunications II

Stability of a Random Multiple Access Channel with "Success-Failure" Feedback
  Sergey Foss (Heriot-Watt University, United Kingdom); Bruce Hajek (University of Illinois, USA); Andrey Turlikov (Saint-Petersburg State University of Aerospace Instrumentation, Russia)
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Random multiple access system with a common energy supply
  Sergey Foss (Heriot-Watt University, United Kingdom); Andrey Turlikov (Saint-Petersburg State University of Aerospace Instrumentation, Russia); Dmitriy Kim (Kazakh National Technical University, Kazakhstan)
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Employing Evolutionary Optimization for Designing Practical Beamsteering Algorithms for the Uplink of UMTS with Transmit Power Control Bits as Feedback
  Simon Schroeter (University of Erlangen-Nuernberg, Germany); Robert Weigel (University of Erlangen-Nuremberg, Germany); Georg Fischer (University of Erlangen-Nuremberg & Eesy-id, Germany)
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Analysis of the Behavior of Sequential Fano Decoder for Convolutional Codes
  Roman Gridasov (National Research University of Electronic Technology (MIET), Russia); Alexander A Bahtin (Moscow Institute of Electronic Technology (Technical University), Russia); Leonid Pertsev (Moscow Institute of Electronic Technology (Technical University), Russia); Aleksandr Timoshenko (National Research University of Electronic Technology (MIET), Russia)
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Application of Random Relaying of Partitioned MDS Codeword Block to Persistent Relay CSMA over Random Error Channels
  Katsumi Sakakibara (Okayama Prefectural University, Japan); Jumpei Taketsugu (Okayama Prefectural University, Japan)
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Mechanism for Context-Aware Substitution of Smart-M3 Agents Based on Dataflow Network Model
  Andrey Vasilev (Yaroslavl State University, Russia); Ilya Paramonov (Yaroslavl State University, Russia); Sergey I. Balandin (FRUCT Oy, Finland); Ekaterina Balandina (Tampere University of Technology & FRUCT Oy, Finland)
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RNDM'13 S5: Reliability of virtual and overlay networks

Survivable Virtual Infrastructure Mappings in Multi-datacenter Systems
  Hongfang Yu (University of Electronic Science and Technology of China, P.R. China); Gang Sun (University of Electronic Science and Technology of China, P.R. China); Chunming Qiao (State University of New York at Buffalo, USA); Jianping Wang (City University of Hong Kong, Hong Kong)
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Capacity and Flow Assignment in Survivable Overlay Networks with Dual Homing Architecture
  Wojciech Kmiecik (Wroclaw University of Technology, Poland); Krzysztof Walkowiak (Wroclaw University of Technology, Poland)
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Virtual Topology Design and Reconfiguration using Cognition: Performance Evaluation in Case of Failure
  Natalia Fernández (Universidad of Valladolid, Spain); Ramón J. Durán (University of Valladolid, Spain); Ignacio de Miguel (University of Valladolid, Spain); Eleni Palkopoulou (Athens Information Technology, Greece); Noemí Merayo (University of Valladolid, Spain); Patricia Fernández (University of Valladolid, Spain); Juan Carlos Aguado (University of Valladolid, Spain); Ioannis Tomkos (AIT, Greece); Rubén M. Lorenzo (University of Valladolid, Spain); Evaristo J. Abril (University of Valladolid, Spain)
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ICUMT'13: Telecommunications III and Control Systems

UDE-Based Robust Voltage Control of DC-DC Power Converters
  Alon Kuperman (Ariel University, Israel)
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Synergetics approach to multi-machine power system hierarchical nonlinear control
  Andrey Kuz'menko (Southern Federal University & Information Security Faculty, Russia)
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A New Approach to Large-Scale Image Recognition for Visual Search Engines
  Dmitry Sezganov (Technion, Israel); Moshe Porat (Technion, Israel)
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Comparison of reliability of ADSS cables mounted on different voltage electric power lines
  Jurgis Porins (Riga Technical University & Faculty of Electronic and Telecommunications, Latvia); Vjaceslavs Bobrovs (Riga Technical University, Latvia); Krisjanis Markevics (Riga Technical University, Latvia); Andis Supe (Riga Technical University, Latvia)
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The Kronecker Space-Time MIMO Network Code
  Maria-Angeles Vázquez-Castro (Universidad Autónoma de Barcelona, Spain)
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Welcome Reception

Social Program

Regional Gala Dinner

RNDM'13 S6: Theory of network reliability

An optimization model for communication networks with partial multiple link failures
Michal Pióro (Warsaw University of Technology & Lund University, Poland); Dritan Nace (Compiegne University of Technology, France); Yoann Fouquet (Université de Technologie de Compiègne, France)
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Finding the shortest node-disjoint pair of paths that are allowed to share resilient arcs
Teresa Gomes (University of Coimbra & INESC COIMBRA, Portugal); Mateusz Żotkiewicz (Warsaw University of Technology, Poland)
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A novel Interpolation technique to address the Edge-Reliability Problem
Franco Robledo (Facultad de Ingeniería, Universidad de la República, Uruguay); Pablo Gabriel Romero (Facultad de Ingeniería, Universidad de la República, Uruguay); Pablo Sartor (School of Engineering, Universidad de la República, Uruguay)
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Network Design and Optimisation Based on Cost and Algebraic Connectivity
Mohammed J.F. Alenazi (The University of Kansas, USA); Egemen K. Çetinkaya (University of Kansas, USA); James P. G. Sterbenz (University of Kansas & Lancaster University (UK), USA)
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Using metaheuristics for planning resilient and cost-effective multilayer networks
Claudio Risso (Faculty of Engineering, University of the Republic & Fing, Uruguay); Eduardo Canale (Facultad de Ingeniería, Universidad de la República, Uruguay); Franco Robledo (Facultad de Ingeniería, Universidad de la República, Uruguay); Gerardo Rubino (INRIA, France)
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RNDM'13 S7: Reliable networks design - from theory to practice (Part 1)

Resilient deployment of virtual network functions
Marcus Schöller (NEC Europe Ltd., Germany); Andreas Ripke (NEC Labs Europe, Germany); Martin Stiemerling (NEC Europe Ltd., Germany); Roland Bless (Karlsruhe Institute of Technology (KIT), Germany)
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Unreliable inter process communication in Ethernet: migrating to RINA with the shim DIF
Sander Vrijders (Ghent University - iMinds, Belgium); Eleni Trouva (Fundació i2CAT, Internet i Innovació Digital a Catalunya & Universitat Politècnica de Catalunya, Spain); John Day (Boston University, USA); Eduard Grasa (Fundació i2CAT, Internet i Innovació Digital a Catalunya, Spain); Dimitri Staessens (Ghent University - iMinds, Belgium); Didier Colle (iMinds - Ghent University, Belgium); Mario Pickavet (Ghent University - iMinds, Belgium); Lou Chitkushev (Boston University, USA)
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RNDM'13 S8: Reliable networks design - from theory to practice (Part 2)

Method of reliability and availability analysis - From the dynamic properties of routing and forwarding paths
> Dimitri Papadimitriou (Alcatel-Lucent Bell & UGent, Belgium); Davide Careglio (Universitat Politecnica de Catalunya, Spain); Fabien Tarissan (Université Pierre et Marie Curie (UPMC) & LIP6, France); Piet Demeester (Ghent University - iMinds, Belgium)
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Robustness of Mobile Ad Hoc Networks Under Centrality-Based Attacks
> Dongsheng Zhang (The University of Kansas, USA); Egemen K. Çetinkaya (University of Kansas, USA); James P. G. Sterbenz (University of Kansas & Lancaster University (UK), USA)
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A Novel Long Term Telecommunication Network Planning Framework Using a SIPOC Approach
> Brody Todd (University of Alberta, Canada); John Doucette (University of Alberta, Canada)
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RNDM'13 S9: Panel discussion

RNDM'13 S10: Closing session & Best Paper Award & Announcement of RNDM 2014

Farewell Yurt Dinner