# D1: Opening Address and Day 1 Invited Keynote Speakers

### S1: Mobile Cellular and Wireless Networks - I

### Optimum Power Allocation for Sensor Networks that Perform Object Classification

Gholamreza Alirezaei (RWTH Aachen University, Germany); Rudolf Mathar (RWTH Aachen University, Germany) pp. 1-6

#### A Model of Self Deployment to Maximise Area Coverage in Sensor Networks

Anthony Krzesinski (University of Stellenbosch, South Africa); Johannes Goebel (University of Hamburg, Germany) pp. 7-12

### Efficient Mobility Management Using Simplified Cellular IP

Sobia Omer (Macquarie University, Australia); Sajid Qamar (Comsats, Australia); Rein Vesilo (Macquarie University, Australia); Eryk Dutkiewicz (Macquarie University, Australia) pp. 13-18

### Hunter Friendly Fire Avoidance: Modeling a wireless solution

Craig Walker (Auckland University of Technology & Walkertronics Ltd, New Zealand); Adnan Al-Anbuky (AUT University, New Zealand) pp. 19-24

### **S2: Internet Technologies**

### Quantifying the Performance Degradation of IPv6 for TCP in Windows and Linux Networking

Burjiz Soorty (Auckland University of Technology, New Zealand); Nurul I Sarkar (Auckland University of Technology, New Zealand)
pp. 25-29

### Flow-Aware Networking as an Architecture for the IPv6 QoS Parallel Internet

Jerzy Domżał (AGH University of Science and Technology, Poland) pp. 30-35

### Scaling Analysis of the Internet Traffic Structural Dynamics

Muhammad Asad Arfeen (University of Canterbury, New Zealand); Krzysztof Pawlikowski (University of Canterbury & University of Canterbury, New Zealand); Don McNickle (University of Canterbury, New Zealand); Andreas Willig (University of Canterbury, New Zealand) pp. 36-40

### On the Accuracy of Leveraging SDN for Passive Network Measurements

Michael Jarschel (University of Wuerzburg, Germany); Thomas Zinner (University of Wuerzburg, Germany); Thomas Höhn (University of Wuerzburg, Germany); Phuoc Tran-Gia (University of Wuerzburg, Germany)
pp. 41-46

### **S3: Optical Communications and Network Architectures**

### A Delay-based Void Filling DBA in Long-reach EPON for Multimedia Services

Pu-Chen Mao (National Taipei University of Technology, Taiwan); Ho-Ting Wu (National Taipei University of Technology, Taiwan); Kai-Wei Ke (National Taipei U. of Technology, Taiwan) pp. 47-51

### Performance analysis of multistage switching networks

Zbigniew Hulicki (AGH University of Science and Technology, Poland) pp. 52-56

#### Estimation of Round Trip Time in Distributed Real Time System Architectures

Ananda Maiti (University of Southern Queensland, Australia); Alexander A. Kist (University of Southern Queensland, Australia); Andrew Maxwell (University of Southern Queensland, Australia) pp. 57-62

#### Feeder Fiber and OLT Protection for Ring-and-Spur Long-reach Passive Optical Network

Huda Abbas (RMIT University, Australia); Mark A. Gregory (RMIT University, Australia)

### S4: Mobile Cellular and Wireless Networks - II

#### Uplink VoIP Capacity of 3GPP LTE under Power Control and Semi-Persistent Scheduling

Maciej Mühleisen (RWTH Aachen University, Faculty 6 & RWTH Aachen University, Faculty 6, Germany); Bernhard H. Walke (RWTH Aachen University, Germany); Andreas Timm-Giel (Hamburg University of Technology, Germany) pp. 69-76

### Route Caching in DTNs Interconnected by Infrastructure

Md. Enamul Haque (Bangladesh Agricultural University, Bangladesh); Shigeki Yamada (National Institute of Informatics, Japan); Cristian Borcea (New Jersey Institute of Technology, USA) pp. 77-82

### On the Bit Error Probability for Interference Limited Cooperative Networks

Rajitha Senanayake (University of Melbourne, Australia); Phee Lep Yeoh (University of Melbourne, Australia); Jamie Evans (Monash University, Australia)
pp. 83-88

# **CR1: Welcome Reception**

### **D2: Day 2 Invited Keynote Speakers**

### S5: Mobile Cellular and Wireless Networks - III

### Investigations on passive discovery schemes for IEEE 802.15.4 based Body Sensor Networks

Saima Ali (University of Canterbury, New Zealand); Ehsan Tabatabaei Yazdi (University of Canterbury, New Zealand); Andreas Willig (University of Canterbury, New Zealand) pp. 89-94

### Spatial Blocking in Poisson Cellular Networks with Random Channel Reuse

Yeqing Hu (Monash University, Australia); Yi Hong (Monash University, Australia); Jamie Evans (Monash University, Australia)
pp. 95-99

### AVHRC:A Scheme to Improve QoS for VoIP Traffic

Muhammad Tahir Baig (National University of Science and Technology, Pakistan); Zawar Shah (School of Electrical Engineering and Computer Science (SEECS), NUST, Pakistan); Adeel Baig (National University of Sciences and Technology, Pakistan)
pp. 100-105

### Decentralized Coding Algorithm in Data Centric Storage for Wireless Sensor Networks

Khandakar Ahmed (RMIT University & Dept. of Computer Science & Engineering., Shahjalal University of Science & Techonology, Australia); Mark A. Gregory (RMIT University, Australia) pp. 106-111

### **S6: Performance Analysis**

### End-to-end bandwidth measurement method considering effects on power-saving routers

Daisuke Kobayashi (Osaka University, Japan); Go Hasegawa (Osaka University, Japan); Masayuki Murata (Osaka University, Japan)
pp. 112-117

# Performance Analysis of a City Smart Grid Communication Network based on the IEEE 802.16e Standard

Khalid Imtiaz Saad (University of Newcastle, Australia); Jamil Y Khan (The University of Newcastle, Australia)
pp. 118-123

# Experimental Performance Analysis of Current Bypass Anti-Tampering in Smart Energy Meters

Chaiyod Pirak (King Mongkut's University of Technology North Bangkok, Thailand) pp. 124-129

### An Energy Aware Mobile-Controlled Handover Method for Natural Disaster Situations

Sayan Kumar Ray (Manukau Institute of Technology, New Zealand); William Liu (Auckland University of Technology, New Zealand); Harsha R Sirisena (University of Canterbury, New Zealand); Swapan K. Ray (Jadavpur University, India); Devatanu Deka (Junior Design Engineer, New Zealand)
pp. 130-135

# **S7: Channel Modelling and Scheduling**

# Investigation of Forward Error Correction Coding Schemes for a Broadcast Communication System

Xiaohan Wang (University of Canterbury, New Zealand); Andreas Willig (University of Canterbury, New Zealand); Graeme K Woodward (University of Canterbury, New Zealand)
pp. 136-141

# Optimal Random Parameter EM Based Kalman Filter (REKF) for Fast Fading MIMO Channel Estimation

Amrita Mishra (IIT Kanpur, India); Gayathri R (Indian Institute of Technology Kanpur, India); Aditya K Jagannatham (Indian Institute of Technology Kanpur, India)

pp. 142-147

# Cross-layer MIMO-Links Exploiting Packet Re-routing Mechanisms and Adaptive Modulation in Diverse Channel Condition

Erwin Anggadjaja (NTU, Singapore); Ian McLoughlin (University of Science and Technology of China & National Engineering Laboratory of Speech and Language Information Processing, P.R. China) pp. 148-153

### Performance Analysis of an Enhanced Delay Sensitive LTE Uplink Scheduler for M2M Traffic

Nusrat Afrin (University of Newcastle, Australia); Jason Brown (University of Newcastle, Australia); Jamil Y Khan (The University of Newcastle, Australia) pp. 154-159

# **S8: Networks and Management**

### Energy Aware Survivable Routing Approaches for Next Generation Networks

Bing Luo (Auckland University of Technology, New Zealand); William Liu (Auckland University of Technology, New Zealand); Adnan Al-Anbuky (AUT University, New Zealand) pp. 160-165

### Generalised Unavailability and Generalised Nines in Designing Services for Maximum Profit

Bob Warfield (University of Melbourne & Access Research Company, Australia) pp. 166-171

### Monitoring available bandwidth in overlay networks using local information exchange

Hoang Dinh (Osaka University, Japan); Go Hasegawa (Osaka University, Japan); Masayuki Murata (Osaka University, Japan) pp. 172-177

### Video-Aware Measurement-Based Admission Control

Safeen Qadir (University of Southern Queensland, Australia); Alexander A. Kist (University of Southern Queensland, Australia) pp. 178-182

### **CR2: Conference Dinner**

# **D3: Day 3 Invited Keynote Speakers**

# **S9: Network - Based Applications**

#### WCMT: Web Censorship Monitoring Tool

Shadi Esnaashari (Victoria University of Wellington & Computer Science, New Zealand); Ian Welch (Victoria University of Wellington, New Zealand); Brenda Chawner (Victoria University of Wellington, New Zealand)
pp. 183-188

#### Virtualization and New Generation Network Design

Aun Haider (National Institute of Information and Communications Technology (NICT) & 1-33-16, Hakusan, Bunkyo-ku, Tokyo 174-0063, Japan); Harsha R Sirisena (University of Canterbury, New Zealand); Richard J Harris (Massey University, New Zealand)
pp. 189-194

### Video Conferencing Solution for Medical Applications in Low-Bandwidth Networks

Arun Shankar Narayanan (National University of Singapore, Singapore); Kok Kiong Tan (National University of Singapore, Singapore)
pp. 195-200

### MEETING ROOM - a Secure Multi-Access, Cross-Platform Telemedicine Application

Arun Shankar Narayanan (National University of Singapore, Singapore) pp. 201-206

### S10: Quality of Service

# Assessment of the rating performance of ITU-T recommended Video Quality Metrics in the context of video freezes

Tahir Nawaz Minhas (Blekinge Institute of Technology, Sweden); Muhammad Shahid (Blekinge Institute of Technology, Karlskrona, Sweden); Andreas Rossholm (Blekinge Institute of Technology, Sweden); Benny Lövström (Blekinge Institute of Technology, Sweden); Hans-Juergen Zepernick (Blekinge Institute of Technology, Sweden); Markus Fiedler (Blekinge Institute of Technology, Sweden)
pp. 207-212

# QoS-Aware Cross-Layer Scheduling for Cognitive Radio Networks with Heterogeneous Data Traffics

Yin Hui Chye (Macquarie University, Australia); Eryk Dutkiewicz (Macquarie University, Australia); Rein Vesilo (Macquarie University, Australia); Ren Ping Liu (CSIRO, Australia) pp. 213-218

# A QoS Guaranteed Energy Optimized Packet Transmission Technique for the IEEE802.11 WLAN Wan Norsyafizan W. Muhamad (University of Newcastle, Australia); Jamil Y Khan (The University of Newcastle, Australia); Jason Brown (University of Newcastle, Australia) pp. 219-224

### S11: ATNAC Demonstration Session

**CR3: Conference Closing**