



UNIVERSITÀ  
DEGLI STUDI  
DI PALERMO



50<sup>TH</sup> FITCE  
INTERNATIONAL  
CONGRESS



Associazione per la Tecnologia  
dell'Informazione e delle Comunicazioni  
della Federazione 



IEEE



IEEE  
COMMUNICATIONS  
SOCIETY

**FITCE 2011 – “ICT: bridging an ever shifting digital divide”**  
**Palazzo Chiaramonte Steri Piazza della Marina, 61 – Palermo - Italy**



## Preliminary Program (August 23<sup>rd</sup>, 2011)

### Wednesday August 31<sup>st</sup>, 2011

18:00

#### Registration

Cloister 1st floor

19:00

#### Welcome cocktail

Cloister ground floor

For each paper all the authors  
are indicated, among them the  
speaker names are underlined.

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### Thursday September 1<sup>st</sup>, 2011

08:30

#### Registration

Cloister 1st floor

09:30

#### Opening ceremony

Chair: Andrea Penza (FITCE President)

Room: A – “Magna”

10:30

#### coffee break

Buvette

#### Session A1: Access infrastructures and networks

Chair: Wim van der Bijl (Industry & Capgemini, The Netherlands)

Room: A – “Magna”

10:50 Keynote speech: Gianfranco Ciccarella (Telecom Italia)

***“Deployment of NGAN in Italy”***

11:10 ***A complete enabling solution for FTTx network infrastructure***

Edoardo Cottino, Nicola Di Buono (Sirti SpA, Italy)

11:30 ***Performance evaluation of WDM-PON RSOA based solutions in NGAN scenario***

Mariangela Trotta (SITE SpA, Italy); Marco Leo (RadioLabs & Università di Roma "Tor Vergata", Italy)

11:50 ***An Analysis of NGAN Deployment in Rural Areas***

Claudio Feijoo, Sergio Ramos (Universidad Politecnica de Madrid, Spain); Jose-Luis Gomez-Barroso (Universidad Nacional de Educacion a Distancia, Spain)

12:10 ***Hellenic Telecommunications Organization Infrastructure***

John Hatzinikolis, Katerina Avloniti, Varvara Rizou, Marilena Papageorgiou (Hellenic Telecommunications Organization, Greece)

### **Session B1: Multimedia application and services**

Chair: Antonio Iera (University "Mediterranea" of Reggio Calabria)

Room: B – "Armi"

10:50 Keynote speech: Antonio Iera (University "Mediterranea" of Reggio Calabria)

11:10 ***Backhauling and access means through a 60 GHz developed prototype***

George Agapiou, Andreas Rigas (Hellenic Telecommunications Organization, Greece); Spiros Mikroulis (National and Kapodistrian University of Athens (NKUA) & Technological Educational Institute (TEI) of Athens, Greece); Stelios Agapiou (National Kapodistrian University of Athens, Greece); Konstantinos Voudouris (Technological Educational Institute of Athens, Greece)

11:30 ***A semantic-driven Integer Programming Approach for QoS-aware Dynamic Service Composition***

Federica Paganelli (National Inter-University Consortium for Telecommunications & Research Unit of Firenze, c/o Dept. of Electromics and Telecommunications, Italy); Terence Ambra (Dept. of Electronics and Telecommunications, Italy); David Parlanti (National Inter-University Consortium for Telecommunications (CNIT), Italy); Dino Giuli (CNIT - University of Firenze, Italy)

11:50 ***An MHP Based Solution for Assistive Home Automation***

Ennio Gambi, Fabrizio Borioni (Università Politecnica delle Marche, Italy); Susanna Spinsante (Università Politecnica delle Marche & ArieLAB Srl, Italy); Giorgio Rascioni (ArieLAB Srl, Italy)

12:30

**lunch**

Buvette

### **Session A2: Business models**

Chair: Josè Van Ooteghem (FITCE, Belgium)

Room: A – "Magna"

14:30 ***A new technical and economical approach for new business model enabling broadband provisioning in DD areas***

Luigi Maria Aliberti, Giuseppe Braccini (Rai Way, Italy); Marco Leo (RadioLabs & Università di Roma "Tor Vergata", Italy); Marco Vari (University of Tor Vergata- Rome, Italy)

14:50 ***Techno-economic Comparison of Next Generation Optical Access Network Architectures***

Ioannis Tomkos (AIT, Greece)

15:10 ***How to measure the success rate of fiber-based access networks? Evaluation of the Stokab case and comparison with other European cases***

Marlies Van der Wee, Mario Pickavet (Ghent University, Belgium); Crister Mattsson (Acreo, Sweden); Anand Kishore Raju (IBBT & VUB, Belgium); Olivier Braet (Free University of Brussels - IBBT, Belgium); Alberto Nucciarelli, Bert Sadowski (Eindhoven University of Technology, The Netherlands); Sofie Verbrugge (Ghent University - IBBT, Belgium)

### **Session B2: Internet and Next-Generation Networks**

Room: B – "Armi"

Chair: Marco Vari (University of Tor Vergata- Rome, Italy)

14:30 Keynote speech: Umberto De Julio (Italtel)

***"Internet and Next-Generation Networks: shaping new models"***

14:50 ***An Online Scheduling Algorithm for Variable Bit Rate Interactive Video Streaming in UMTS Networks***

Domenico Striccoli, Pietro Camarda, Raffaele Fama (Politecnico di Bari, Italy)

- 15:10** *Experimental investigation on the operating systems to improve the bandwidth exploitation in Gigabit Passive Optical Networks*  
Paolo Bolletta, Alessandro Valenti, Sergio Pompei, Luca Rea (Fondazione Ugo Bordoni, Italy)
- 15:30** *On the Quality of Service of fixed-line broadband access network: the Italian experience*  
Luca Rea, Paolo Bolletta, Elena Mammi, Alessandro Valenti (Fondazione Ugo Bordoni, Italy)
- 15:50** *SWAD: Secure Watermarking for Authentication of scanned Documents*  
Fernando Martín-Rodríguez (University of Vigo & Signal Theory and Communications, Spain); Juan Fernández-Montenegro (University of Vigo, Spain)
- 16:10** *GirControl Plus. Manufacturing Process Control via Internet*  
Luis Miquel Marias (PACKAGING INDUSTRY & GIRO GH, Spain)

**16:10**  
**coffee break**  
Buvette

### Session A3: Network development

Room: A – “Magna”

Chair: George Agapiou (Hellenic Telecommunications Organization, Greece)

- 16:30** *Agent-based Modelling as a Tool to Investigate the Viability of Next-Generation Networks*  
Alessandro Neri, Mauro Ugolini, Marco Allegretti (Roma Tre University, Italy)
- 16:50** *A novel algorithm for dynamic admission control of elastic flows*  
Franco Blanchini, Daniele Casagrande, Pier Luca Montessoro (University of Udine, Italy)

### Session B3: Reliability and Performance Modeling

Room: B - Armi

Chair: Mauro Ugolini (Roma Tre University, Italy)

- 16:30** *Network Performance in Managed Networks*  
Edward Smith (British Telecom, United Kingdom)
- 16:50** *Performance evaluation of standard power grid communications*  
Giovanna Dondossola, Fabrizio Garrone, Judit Szanto (RSE, Italy)
- 17:10** *An Innovative Uplink Scheduler for Enhancing Multirate Fairness in WiMAX*  
Alessandro Andreadis, Sandro Rizzuto, Riccardo Zambon (University of Siena, Italy)
- 17:30** *A method for copper lines classification*  
Elena Mammi, Anna Del Grosso (Fondazione Ugo Bordoni, Italy)

**20:00**  
Palazzo dei Normanni  
**FITCE 50th anniversary celebration**



## Friday September 2<sup>nd</sup>, 2011

08:30

### Registration

Cloister 1st floor

### Session A4: Quality of service

Room: A – “Magna”

Chair: Artan Halimi (A1 Telekom Austria, Austria)

09:00 Keynote speech: Roberto Saracco (Telecom Italia)

***"New networks and services architectures: new challenges on QoS"***

09:20 ***Valuing Quality of Experience: A Brave New Era of User Satisfaction and Revenue Possibilities***

Christos Tselios, Michail Tsagkaropoulos (University of Patras, Greece); Ilias Politis, Tasos Dagiuklas (Technological Educational Institute of Messolonghi, Greece)

09:40 ***User centric QoS standards and challenges for the future***

Antony P Oodan (Telecommunications Quality Consultancy, United Kingdom)

10:00 ***Which way to QoS in future networks: distributed or centralised decision logic?***

Roberto Minerva (Telecom Italia, Italy); Antonio Manzalini (Telecom Italia, Italy); Corrado Moiso (Telecom Italia, Italy)

### Session B4: Communication Systems & Signal Processing - I

Room: B - Armi

Chair: Giovanni Garbo (Università di Palermo, Italy)

09:00 Keynote speech: Marco Chiani (University of Bologna)

***"The Marriage between Random Access and LDPC: Coded Slotted ALOHA does not need Retransmissions"***

09:20 ***High Rate Puncturing of LDPC Codes***

Marco Manfredi, Stefano Chinnici (Ericsson Telecomunicazioni S.p.A., Italy)

09:40 ***xDSL and OFDM systems equalization using Volterra series***

Diamantis Kotoulas (OTE SA, Greece); George A Maragakis (Hellenic Telecommunications Organization, Greece)

10:00 ***Can a synergetic cooperation between telecom and utility network providers lead to a faster rollout of fiber to the home networks?***

Jan Van Ooteghem, Bart Lannoo, Sofie Verbrugge, Didier Colle (Ghent University - IBBT, Belgium); Koen Casier, Mario Pickavet, Piet Demeester (Ghent University, Belgium)

10:40

### coffee break

Buvette

### 11:00 Round table

Chair: Raffaele Barberio (Key4biz, Italy)

Room: A – “Magna”

Millie Banerjee (Senior UK Telco consultant)

Emilio Marchionna (H3G)

Ermanno Berruto (Wind)

Roberto Saracco (Telecom Italia)

Panos Exarchos (OTE)

Renato Soru (Tiscali)

12:30

### lunch

Buvette

### **Session A5: Security and applications**

Chair: Barry Reynolds (FITCE, Ireland)

Room: A – “Magna”

**14:30** Keynote speech: Jos Dumortier (Belgian Cybercrime Center of Excellence)  
*“Recent European Initiatives in the Fight Against Cyber Crime”*

**14:50** *Analysis of Web-based Video Delivery*

Florian Metzger, Albert Rafetseder, David Stezenbach, Kurt Tutschku (University of Vienna, Austria)

**15:10** *Network neutrality from an innovation research perspective*

Bernd Beckert (Fraunhofer Institute Systems and Innovation Research (ISI), Germany)

**15:30** *Scam and Fraud Detection in VoIP Networks: Analysis and Countermeasures using User Profiling*

Theodoros Kapourniotis, Tasos Dagiuklas, George Polyzos, Panayiotis Alefragis (Technological Educational Institute of Messolonghi, Greece)

**15:50** *Disease Management, what a gold mine health data really can be*

Griet Verhenneman (Katholieke Universiteit Leuven, ICRI, IBBT, Belgium)

### **Session B5: Communication Systems & Signal Processing - II**

Chair: Giovanni Garbo (Università di Palermo, Italy)

Room: B - Armi

**14:30** *Low Complexity Soft-Input Soft-Output Hamming Decoder*

Benjamin Müller, Martin Holters (Helmut-Schmidt-University, Germany); Udo Zölzer (Helmut-Schmidt-University / University of the Federal Armed Forces, Germany)

**14:50** *Efficient Simulation of Orthogonal Multicarrier Transmission over Multipath Fading Channels*

Giovanni Garbo, Stefano Mangione, Vincenzo Maniscalco (Università di Palermo, Italy)

**15:10** *Space Time Turbo Codes Assisted by Fast Forced Symbol Method*

Zeeshan Sattar, Abdulhameed Alsanie, Ahmed Iyanda Sulyman (King Saud University, Saudi Arabia); Youssouf Ould-Cheikh-Mouhamedou (McGill University, Canada)

**16:10**

**coffee break**

Buvette

### **Session A6: User experience**

Chair: Guntram Kraus (FITCE, Germany)

Room: A – “Magna”

**16:30** *IP telephony shifts from Unified communications to Social media*

Dick Marle (Capgemini Netherlands, The Netherlands)

**16:50** *Small Scale Living for the elderly through Information and House Automation (Domotica)*

Frans Heitkamp (RVS Networks, The Netherlands); Jacques Aarts (CENCOR, The Netherlands)

**17:10** *Digital Home Health and mHealth: Prospects and Challenges for Adoption in the United States*

Francis Pereira, Elizabeth Fife (University of Southern California, USA)

**17:30** *Telework: at the crossroads of social demand and technology offer*

Marco Vari (University of Tor Vergata- Rome, Italy); Guelfo Tagliavini (NextiraoOne, Italy); Kristina Ter-oganesova (Krupter srl, Italy)

**Session B6: Wireless and Mobile Networks**

Chair: Alessandro Vizzarri (AICT, Italy)

Room: B - Armi

**16:30** Keynote speech: Gianni A. Di Caro (Dalle Molle Institute for Artificial Intelligence [IDSIA])

**16:35** *Optimal relay node placement for throughput enhancement in wireless sensor networks*

Gianni Di Caro (Supsi - Usi, Switzerland); Eduardo Feo Flushing (Istituto Dalle Molle Sull'Intelligenza Artificiale, Switzerland)

**16:55** *Building the Business Case for Wireless Sensors in a Factory Setting*

Koen Casier, Lieven Tytgat, Mario Pickavet, Ingrid Moerman (University of Ghent, Belgium); Sofie Verbrugge, Ingrid Moerman (Ghent University - IBBT, Belgium)

**17:15** *IEEE 802.11p: Laboratory Measurements and Analysis*

Claudio Cicconetti, Francesco Galeassi, Raffaella Mambrini (Intecs S.p.A., Italy)

**17:35** *An Efficient Multiple Relay Selection Scheme for Wireless Sensor Networks under Global Power Constraint*

Amir Piltan, Soheil Salari, Meysam Mirza'ee (K.N.Toosi University of Technology, Iran); Sayed Mohammad Khodaei (Science and Research Branch, Islamic Azad University Tehran, Iran); Jean Pierre Cancès (University of Limoges, France)

**17:55** *Diffusion of mobile telecommunications services in Europe and Japan*

Dimitrios G Xenikos (Hellenic Telecommunications Organization, Greece)

**21:00**

Sòlanto Castle

Gala dinner



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**Saturday September 3<sup>rd</sup>, 2011**

**10.00 Technical summing up**

Chair: Wim van der Bijl (Industry & Capgemini, The Netherlands)

Room: A – “Magna”

**12.00 Closing session - awards**

Chair: Maurizio Mayer (AICT President)

Room: A – “Magna”

**13.00 FITCE general assembly**

Room: A – “Magna”

**14:00 lunch**

Buvette