

FINAL PROGRAM



Monday, October 7

8:30 AM - 10:00 AM

Participants' Registration

10:00 AM - 10:20 AM - Welcome Addresses

Leopoldo Angrisani, *M&N 2013 General Chairman*

Claudio Quintano, *Rector of the University of Naples "Parthenope"*

Nicola Mazzocca, *Head of the Department of Information Technologies and Electrical Engineering, University of Naples Federico II*

Vito Pascazio, *Head of the Department of Engineering, University of Naples "Parthenope"*

Giovanni Betta, *President of GMEE - Italian Association of Electrical and Electronic Measurements*

10:20 AM – 10:45 AM - Keynote Speech

Dr. Federico Flaviano, *Director of AGCOM Consumer Protection Directorate*

"Mobile Internet Access Service QoS Measurements: the Italian project"

10:45 AM - 11:10 AM

Coffee Break

Room: Richard Wagner Main Hall

11:10 AM - 12:50 PM

Oral Session 1 – Wireless Sensor Networks Synchronization

Room: Conference Room

Chairpersons: Achim Berger (Linz Center of Mechatronics, Austria)

Domenico Grimaldi (Università della Calabria, Italy)

11:10 Robust synchronization for IEEE 802.15.4 CSS Wireless Sensor Networks

Paolo Ferrari (University of Brescia, Italy); Giada Giorgi (University of Padova, Italy); Claudio Narduzzi (Università di Padova, Italy); Stefano Rinaldi (University of Brescia, Italy); Mattia Rizzi (University of Brescia, Italy)

11:30 Synchronized Industrial Wireless Sensor Network with IEEE 802.11 Ad Hoc Data Transmission

Achim Berger (Linz Center of Mechatronics); Albert Potsch (Linz Center of Mechatronics); Andreas Springer (University)

11:50 Synchronization for Hot-plugging Node in Wireless Sensor Network

Francesco Lamonaca (University of Calabria, Italy); Domenico Grimaldi (University of Calabria, Italy)

12:10 Some Notes on the Synchronization of Low-Power Wireless Nodes

Giada Giorgi (University of Padova, Italy); Claudio Narduzzi (Università di Padova, Italy)

12:30 Time Synchronization Based on Linear Regression in Low Cost WSNs: a Performance Analysis

Domenico Capriglione (University of Cassino, Italy); Luigi Ferrigno (University of Cassino, Italy); Deborah Casinelli (University of Cassino and Southern Lazio, Italy); Eleonora D'Orazio (University of Cassino and Southern Lazio, Italy)

12:50 PM – 2:00 PM

Buffet Lunch

Room: Richard Wagner Main Hall

2:00 PM – 4:00 PM

Oral Session 2 – Network design and characterization for measurement applications

Room: Conference Room

Chairpersons: Filippo Attivissimo (Politecnico di Bari, Italy)

Konstantinos Kyriakopoulos (University of Loughborough, UK)

2:00 Coverage Range Analysis of IEEE 802.15.4a IR-UWB for Reliable Data Transmission in Wireless Sensor Networks

Rafael Reinhold (TU Dortmund University, Germany)

2:20 SENTINELLA: A WSN for a smart monitoring of PV systems at module level

Bruno Andò (University of Catania, Italy); Salvatore Baglio (University of Catania, Italy); Antonio Pistorio (University of Catania, Italy); Giuseppe Marco Tina (University of Catania, Italy); Cristina Ventura (University of Catania, Italy)

2:40 Wireless Network Acquisition of Joint EEG-ECG-Ergospirometric Signals for Epilepsy Detection

Aime' Lay-Ekuakille (University of Salento, Italy); Patrizia Vergallo (University of Salento, Italy); Giuseppe Griffio (University of Salento, Italy); Olfa Kanoun (Chemnitz University of Technology, Germany); Francesco Angelillo (IRCCS "E. Medea", Italy); Antonio Trabacca (IRCCS Eugenia Medea, Associazione La Nostra Famiglia, BRINDISI - ITALY, Italy)

3:00 Channel Coding and Interleaving in Industrial WSN: Abiding to Timing Constraints and Bit Error Nature
Filip Barac (Mid Sweden University, Sweden); Mikael Gidlund (ABB, Sweden); Tingting Zhang (Mid Sweden University, Sweden)

3:20 Performance of PHY Layer Links of WSN: Criteria and Ways of Improvement
Anatoliy Platonov (Warsaw University of Technology, Poland); Ievgen Zaitsev (Warsaw University of Technology, Poland)

3:40 Low-Power Communication Protocol for Low Duty Cycle Data Acquisition Applications
Gergely Vakulya (University of Pannonia, Hungary); Gyula Simon (University of Pannonia, Hungary)

2:00 PM - 4:20 PM

Poster Session

Room: Neoclassical Hemicycle

Chairpersons: *Mauro D'Arco (University of Naples Federico II, Italy)*
Luigi Ferrigno (University of Cassino and Southern Lazio, Italy)

Joint I/Q imbalances and CFOs compensation for multiuser wireless networks in the presence of IBI

Donatella Darsena (University of Napoli Parthenope, Italy); Giacinto Gelli (University of Napoli - Federico II, Italy); Francesco Verde (University of Napoli Federico II, Italy)

Toward a New Smart Metering Paradigm for Microgrid

Gregorio Andria (Politecnico di Bari, Italy); Filippo Attivissimo (Polytechnic of Bari, Italy); Giuseppe Cavone (Politecnico di Bari, Italy); Attilio Di Nisio (Politecnico di Bari, Italy); Maurizio Spadavecchia (Polytechnic of Bari, Italy)

Modeling and Performance Simulation of EPC Gen2 RFID on OPNET

Gianluca Massei (Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy); Luigi Paura (Università di Napoli Federico II, Italy); Francesco Marino (Università di Napoli Federico II, Italy)

A Novel Approach for detecting alerts in urban pollution monitoring with low cost sensors

Carlo Sansone (Università degli Studi di Napoli Federico II, Italy); Sabato Manfredi (University of Naples FEDERICO II, Italy); Edmondo Di Tucci (Università degli Studi di Napoli Federico II, Italy); Saverio De Vito (ENEA, Italy); Grazia Fattoruso (ENEA, Italy); Francesco Tortorella (University of Cassino, Italy)

Impulse noise mitigation for MIMO-OFDM wireless networks with linear equalization

Donatella Darsena (University of Napoli Parthenope, Italy); Giacinto Gelli (University of Napoli - Federico II, Italy); Fulvio Melito (University of Napoli Federico II, Italy); Francesco Verde (University of Napoli Federico II, Italy); Andrea Vitiello (University of Napoli Federico II, Italy)

Routing Update Period in Cognitive Radio Ad Hoc Networks

Angela Sara Cacciapuoti (University of Naples Federico II, Italy); Marcello Caleffi (University of Naples "Federico II", Italy); Francesco Marino (Università di Napoli Federico II, Italy); Luigi Paura (Università di Napoli Federico II, Italy)

Practical Early Detection of Performance Degradation in Aggregated Traffic Links

David Fernández-Hermida (Universidad de Vigo, Spain); Miguel Rodelgo-Lacruz (Gradiant, Spain); Cristina López-Bravo (Universidad de Vigo, Spain); Francisco J. González-Castaño (Universidad de Vigo, Spain); Vanesa Estévez-David (Gradiant, Spain)

A wireless network as support to the monitoring of Campi Flegrei Volcano in Italy

Giovanni Scarpato (Istituto Nazionale di Geofisica e Vulcanologia, Italy); Teresa Caputo (Istituto Nazionale di Geofisica e Vulcanologia, Italy); Antonio Caputo (Istituto Nazionale di Geofisica e Vulcanologia, Italy); Antonietta Maria Esposito (Istituto Nazionale di Geofisica e Vulcanologia, Italy); Walter De Cesare (Istituto Nazionale di Geofisica e Vulcanologia, Italy); Michele Vadursi (University of Naples "Parthenope", Italy)

An experimental characterization of the internal generation cycle of an open-source software traffic generator

Leopoldo Angrisani (University of Napoli Federico II, Italy); Alessio Botta (University of Napoli Federico II, Italy); Gianfranco Miele (University of Cassino and Southern Lazio, Italy); Michele Vadursi (University of Naples "Parthenope", Italy)

Quality assessment of VoIP services: a proposal based on the measurement of the IP Packet Delay Variation

Leopoldo Angrisani (University of Naples Federico II, Italy); Domenico Capriglione (University of Cassino, Italy); Luigi Ferrigno (University of Cassino, Italy); Gianfranco Miele (University of Cassino, Italy)

A Proposal for a Flexible and Scalable System for Environmental Measurement Network

Francesco Adamo (Polytechnic of Bari, Italy); Gregorio Andria (Politecnico di Bari, Italy); Anna Maria Lucia Lanzolla (Polytechnic of Bari, Italy); Mario Savino (Politecnico di Bari, Italy); Valeria L. Scarano (Politecnico di Bari, Italy)

VoIP Performance Evaluation over IPv4-6 and Manually Configured Tunnels

Poussy Elsaid (Nile University, Egypt); Nashwa Abdelbaki (Nile University, Egypt)

4:00 PM - 4:20 PM

Coffee Break

Room: Richard Wagner Main Hall

4:20 PM - 5:20 PM

Special session on Dependability and security measurements in computer systems and networks

Room: Richard Wagner Main Hall

Chairperson: Andrea Bondavalli (Università di Firenze, Italy)

- 4:20 Analysis of results in Dependability Benchmarking: Can we do better?
Miquel Martínez (Universitat Politècnica de Valencia, Spain); David de Andrés (Universidad Politècnica de Valencia, Spain); Juan-Carlos Ruiz (Universidad Politècnica de Valencia, Spain); Jesús Frigal (Universidad Politècnica de Valencia, Spain)
- 4:40 An integrated lifetime and network quality model of large WSNs
Ermanno Battista (Università degli Studi di Napoli Federico II, Italy); Valentina Casola (Università degli Studi di Napoli "Federico II", Italy); Stefano Marrone (Seconda Università di Napoli, Italy); Roberto Nardone (Università degli Studi di Napoli Federico II, Italy); Valeria Vittorini (University of Naples "Federico II", Italy)
- 5:00 Experimental analysis of the first order time difference of indicators used in the monitoring of complex systems
Andrea Bondavalli (University of Florence, Italy); Francesco Brancati (Università di Firenze, Italy); Andrea Ceccarelli (University of Florence, Italy); Diego Santoro (University of Naples Parthenope, Italy); Michele Vadursi (University of Naples "Parthenope", Italy)

7:30 PM

Gala Dinner with sax and piano concert

Room: Richard Wagner Main Hall

Tuesday, October 8

09:15 AM - 10:55 AM

Oral Session 3 – Network traffic analysis and performance monitoring

Room: Conference Room

Chairperson: Antonio Pescape' (Università di Napoli Federico II, Italy)

- 9:15 Predicting Time Series of Individual Trends with Resolution Adaptive ARIMA
Hiroki Nakayama (Osaka City University, Japan); Shingo Ata (Osaka City University, Japan); Ikuo Oka (Osaka City University, Japan)
- 9:35 A Real Time Unsupervised NIDS for Detecting Unknown and Encrypted Network Attacks in High Speed Network
Payam Vahdani Amoli (Jyväskylä University, Finland); Timo Hämäläinen (University of Jyväskylä, Finland)
- 9:55 Detecting Misbehaviour in WiFi Using Multi-Layer Metric Data Fusion
Konstantinos G Kyriakopoulos (Loughborough University, United Kingdom); Francisco Javier Aparicio Navarro (Loughborough University, United Kingdom); David Parish (Loughborough University, United Kingdom)
- 10:15 Duplicate detection methodology for IP network traffic analysis
Iñaki Ucar (Universidad Publica de Navarra, Spain); Daniel Morato (Universidad Publica de Navarra, Spain); Eduardo Magaña (Universidad Publica de Navarra, Spain); Mikel Izal (Public University of Navarra (UPNA), Spain)
- 10:35 Model-Based Throughput Prediction in Data Center Networks
Piotr Rygielski (a Karlsruhe Institute of Technology, Germany); Samuel Kounev (Karlsruhe Institute of Technology, Germany); Steffen Zschaler (Lancaster University, United Kingdom)

10:55 AM - 11:20 AM

Coffee Break

Room: Richard Wagner Main Hall

11:20 AM - 1:00 PM

Oral Session 4 – Coexistence and Interference problems in measurement-oriented networks

Room: Conference Room

Chairpersons: Claudio Narduzzi (Università di Padova, Italy)

Prasan Kumar Sahoo (Chang Gung University, Taiwan)

- 11:20 Efficient Bandwidth Allocation Scheme for Wireless Networks Using Relay Stations
Prasan Kumar Sahoo (Chang Gung University, Taiwan)
- 11:40 Mobility-Aware Sensing Enabled Capacity in Cognitive Radio Networks
Roberto Savoia (University of Naples Federico II, Italy); Luigi Paura (Università di Napoli Federico II, Italy)
- 12:00 Enabling induction and wireless power transmission technologies aimed at supplying remote equipment in critical logistic scenarios
Leopoldo Angrisani (University of Naples Federico II, Italy); Guido d'Alessandro (University of Naples Federico II, Italy); Massimo D'Apuzzo (Università di Napoli Federico II, Italy); Mauro D'Arco (University of Naples Federico II, Italy)

12:20 A simple ranging technique based on received signal strength measurements in a narrowband 2.4 GHz channel: a space diversity approach

Igor Neri (Università degli Studi di Perugia, Italy); Riccardo Centonze (University of Perugia, Italy); Mario Luca Fravolini (University of Perugia, Italy); Antonio Moschitta (University of Perugia, Italy)

12:40 Characterization of the Radio Propagation Channel aboard Trains

Andrea Mariscotti (Università di Genova, Italy); Attilio Marrese (University of Naples Federico II, Italy); Nicola Pasquino (University of Naples Federico II, Italy); Rosario Schiano Lo Moriello (Università degli Studi di Napoli Federico II, Italy)

1:00 PM - 2:00 PM

Buffet Lunch

Room: Richard Wagner Main Hall

2:00 PM - 3:20 PM

Special session on Sensor Networks for Ambient Assisted Living

Room: Conference Room

Chairperson: Antonio Pistorio (Università di Catania, Italy)

2:00 Supervised Wearable Wireless System for Fall Detection

Alessandro Leone (CNR, Italy); Gabriele Rescio (CNR-IMM, Italy); Pietro Siciliano (UOS di Lecce, Germany)

2:20 RESIMA: a new WSN based paradigm to assist weak people in indoor environment

Bruno Andò (Univ. of Catania, Italy); Salvatore Baglio (Univ. of Catania, Italy); Cristian Orazio Lombardo (Univ. of Catania, Italy); Vincenzo Marletta (Univ. of Catania, Italy); Elisa Antonella Pergolizzi (Univ. of Catania, Italy); Antonio Pistorio (Univ. of Catania, Italy)

2:40 Choice of efficient simulator tool for Wireless sensor networks

Rym Cheour (National school of engineers of sfax, Tunisia); Mohamed Wassim Jmal (CES Laboratory, Tunisia); Aime' Lay-Ekuakille (University of Salento, Italy); Faouzi Derbel (University Of Applied Sciences Zwickau, Germany); Olfa Kanoun (Chemnitz University of Technology, Germany); Mohamed Abid (ENIS Institute, Tunisia)

3:00 Evaluation and Possible Improvements of the ANT Protocol for Home Heart Monitoring Applications

Samuele Gasparrini (Università Politecnica delle Marche, Italy); Ennio Gambi (Università Politecnica delle Marche, Italy); Susanna Spinsante (Università Politecnica delle Marche, Italy)

3:20 PM - 3:40 PM

Coffee break

Room: Historical dining room

3:40 PM - 4:30 PM

Wrap-up table **"What's next in measurements and networking?"**

Room: Ischia room

Chairpersons: Leopoldo Angrisani, University of Naples Federico II, Italy
Claudio Narduzzi, University of Padova, Italy