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Welcome Message from the General Co-Chairs

Dear colleagues and friends,

On behalf of the entire Conference Committee, we are pleased to welcome you to the 5th IEEE International Symposium on Measurements and Networking (M&N 2019), which is held in Catania and hosted in Museo Diocesano in the heart of the city. The Symposium is mainly promoted by the IEEE IMS TC-37 Measurements and Networking, the IEEE IM Italy Chapter and by the IEEE Italy Section Systems Council Chapter.

IEEE M&N is a privileged forum for the discussion of current and emerging trends on measurements, communications, computer science, wireless systems, and sensor networks, fostering a close and fruitful contact between researchers and practitioners from both academia and industry to debate the role of both measurements for networking and networking for measurements.

The University of Catania has had a fundamental role in the Symposium organization. Being the oldest University of Sicily, its foundation dates back to 1434. The organization of the teaching is handled today by 17 departments, by the Faculty of Medicine, and by two special didactic units established in the decentralized offices of Ragusa (Modern Languages) and Syracuse (Architecture). A special didactic unit is also the school of excellence "Scuola Superiore di Catania", a higher education centre of the University of Catania conceived in 1998 to select the best young minds and offer them a course of studies including analysis, research and experimentation.

Besides the University of Catania, the organization of IEEE M&N 2019 has been mainly supported by two other relevant universities of the center and south of Italy, namely the University of Cassino and Southern Lazio and the University of Salerno.

We would like to thank all the people involved in the organization of the Symposium, in special the TPC Chairs, the Publications Chair, the Publicity Chairs, the Special Session Chairs, the TPC members and the external reviewers for their fruitful contribution in putting together a very amazing and interesting program. A special appreciation goes to the entire local staff, for its strong commitment in all steps of the Symposium organization.

Further, special thanks go also to the Keynote speakers (Prof. Carla-Fabiana Chiasserini, Prof. Ricardo Jardim-Goncalves, Dr. Giuseppe Bruno and Prof. Kaushik Chowdhury) and to all instrument manufacturers that have really contributed to the success of the Symposium and of the technical program.

Finally, we wish to thank all of you for being here and join with us in these days.

Bruno Andò
Domenico Capriglione
IEEE M&N 2019 General Co-Chairs

M&N 2019 Organizers

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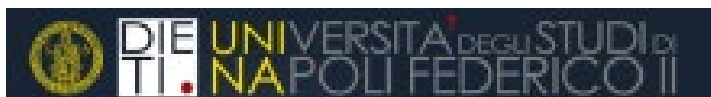


IEEE

Patrons



Patrons (Continued)



Patrons (Continued)



UNIVERSITÀ
degli STUDI
di CATANIA

Exhibitors



Exhibitors (continued)



Monday, July 8

08:30 – 09:10

Registration

09:10 - 09:30

Opening Ceremony

Room: VII

09:30 - 10:00

Special Session #1: Measurements for networking: Traffic monitoring and Performance analysis - Part 1

Special Session Presentation I

Room: VII

Title: "Implementation and Performance Measurements of a MEC-based Automotive Service"

Presenter: Prof.ssa Carla-Fabiana Chiasserini, Politecnico di Torino

10:00 - 10:40

Special Session #1: Measurements for networking: Traffic monitoring and Performance analysis - Part 1

Room: VII

Chairs: Laura Galluccio (University of Catania, Italy)

Alfio Lombardo (University of Catania, Italy)

10:00 Transfer Learning for Channel Quality Prediction

Claudia Parera (Politecnico di Milano, Italy)

Alessandro E. C. Redondi (Politecnico di Milano, Italy)

Matteo Cesana (Politecnico di Milano, Italy)

Qi Liao (Nokia Bell Labs, Germany)

Ilaria Malanchini (Nokia Bell Labs, Germany)

10:20 Multi-Service Mobile Traffic Forecasting via Convolutional Long Short-Term Memories

Chaoyun Zhang (The University of Edinburgh, United Kingdom (Great Britain))

Marco Fiore (National Research Council of Italy, Italy)

Paul Patras (The University of Edinburgh, United Kingdom (Great Britain))

10:40 - 11:10

Coffee Break

Room: Cafeteria

Monday, July 8

11:10 - 12:10

Special Session #1: Measurements for networking: Traffic monitoring and Performance analysis - Part 2

Room: VII

Chairs: Laura Galluccio (University of Catania, Italy)

Alfio Lombardo (University of Catania, Italy)

11:10 Measuring QoS and QoE for a Softwarized Video Surveillance System in a 5G Network

Giovanni Schembra (University of Catania, Italy)

Christian Grasso (University of Catania, Italy)

Raoul Raftopoulos (University of Catania, Italy)

Michele Grasso (University of Catania, Italy)

Laura Galluccio (University of Catania, Italy)

11:30 On the evaluation of application level delays in public LoRaWAN networks

Emiliano Sisinni (University of Brescia, Italy)

Dhiego Fernandes Carvalho (University of Brescia, Italy)

Alessandro Depari (University of Brescia, Italy)

Paolo Ferrari (University of Brescia, Italy)

Alessandra Flammini (University of Brescia, Italy)

Stefano Rinaldi (University of Brescia, Italy)

11:50 Multivariate LTE performance assessment through an Expectation-Maximization algorithm approach

Stefania Zinno (University Federico II of Naples, Italy)

Nicola Pasquino (University of Naples Federico II, Italy)

Giorgio Ventre (University of Naples Federico II, Italy)

Federica Ignarro (University of Naples Federico II, Italy)

Sofia Petrocelli (University of Naples Federico II, Italy)

12:10 - 12:40

Special Session #1: Measurements for networking: Traffic monitoring and Performance analysis - Part 2

Special Session Presentation II

Room: VII

Title: "Understanding and testing the 5G ecosystem"

Presenter: Giampiero Cornara (Delo Instruments)

12:50 - 14:00

Lunch

Room: Cafeteria

Monday, July 8

14:00 - 14:30

Keynote Presentation I

Room: VII

Title: "Environmental Sensors and Main Applications"

Presenter: Giuseppe Bruno (STMicroelectronics)

14:30 - 15:30

POSTER SESSION 1

Room: VII

Chairs: Gianni Cerro (University of Cassino and Southern Lazio, Italy)

António Espírito Santo (University of Beira Interior, Portugal)

1: Performance Analysis of the UFSOOK Protocol

Márk Rátósi (University of Pannonia, Hungary)

Gyula Simon (Pazmany Peter Catholic University, Hungary)

2: Water monitoring in smart cities exploiting plastic optical fibers and molecularly imprinted polymers. The case of PFBS detection

Nunzio Cennamo (University of Campania Luigi Vanvitelli, Italy)

Girolamo D'Agostino (Copernico srl, Italy)

Francesco Arcadio (University of Campania Luigi Vanvitelli, Italy)

Chiara Perri (University of Campania Luigi Vanvitelli, Italy)

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Filipa Sequeira (Instituto de Telecomunicações, Italy)

Lucia Bilro (Instituto de Telecomunicações, Portugal)

Rogério N Nogueira (Instituto de Telecomunicacoes, Portugal)

Luigi Zeni (University of Campania Luigi Vanvitelli, Italy)

3: Network Signal Comparison Through Waves Parameters: a Local-Alignment-Based Approach

Loredana Sorrentino (Università di Napoli Federico II, Italy)

Aniello Murano (Università di Napoli Federico II, Italy)

Silvia Stranieri (University of Naples Federico II, Italy)

Walter Balzano (Università di Napoli Federico II, Italy)

4: Raster Scan Multi-Frequency Near-Field Antenna Characterization

Amedeo Capozzoli (Università di Napoli Federico II, Italy)

Claudio Curcio (Università di Napoli Federico II, Italy)

Angelo Liseno (Università di Napoli Federico II, Italy)

5: Simultaneous RSS measurements using multiple inductively coupled coils

Antonella Comuniello (University of Perugia, Italy)

Guido De Angelis (Regione Umbria, Italy)

Alessio De Angelis (University of Perugia, Italy)

Antonio Moschitta (University of Perugia, Italy)

Paolo Carbone (University of Perugia, Italy)

Monday, July 8

6: On the use of soft continuum robots for remote measurement tasks in constrained environments: a brief overview of applications

Leopoldo Angrisani (University of Naples Federico II, Italy)

Stanislao Grazioso (University of Naples Federico II, Italy)

Giuseppe Di Gironimo (University of Naples Federico II, Italy)

Annarita Tedesco (University of Naples, Federico II, Italy)

Dario Panariello (University of Naples Federico II, Italy)

7: High-Speed Analysis of SMB2 File Sharing Traffic without TCP Stream Reconstruction

Eduardo Berrueta Irigoyen (Public University of Navarre (UPNA), Spain)

Daniel Morato (Universidad Publica de Navarra, Spain)

Eduardo Magaña (Universidad Publica de Navarra, Spain)

Mikel Izal (Public University of Navarre (UPNA), Spain)

8: The effect of noise variance uncertainty for spectrum sensing in IEEE 802.22.3

Gianni Cerro (University of Cassino and Southern Lazio, Italy)

Domenico Capriglione (University of Salerno, Italy)

Luigi Ferrigno (University of Cassino, Italy)

Gianfranco Miele (University of Cassino and Southern Lazio, Italy)

Emanuele Grossi (University of Cassino and Southern Lazio & Consorzio

Nazionale Inter-universitario per le Telecomunicazioni (CNIT), Italy)

Luca Venturino (Universita' degli Studi di Cassino e del Lazio Meridionale &

Consorzio Nazionale Interuniversitario per le Telecomunicazioni (CNIT), Italy)

9: Detecting cryptocurrency miners with NetFlow/IPFIX network measurements

Jordi Zayuelas I Muñoz (UPC BarcelonaTech, Spain)

José Suárez-Varela (UPC BarcelonaTech, Spain)

Pere Barlet-Ros (UPC BarcelonaTech, Spain)

10: Some Notes on the Verification of the Exposure Limits in 5G Systems

Marco Donald Migliore (University of Cassino, Italy)

11: Experimental Evidences on the Effectiveness of a Nonredundant Spherical Spiral NF/FF Transformation for Offset Mounted Quasi-planar AUTs

Francesco D'Agostino (University of Salerno, Italy)

Flaminio Ferrara (University of Salerno, Italy)

Claudio Gennarelli, (University of Salerno, Italy)

Rocco Guerriero (University of Salerno, Italy)

Massimo Migliozzi (University of Salerno, Italy)

12: Major Contributions on Uncertainty in Radar Image Based Near-Field to Far-Field RCS Measurement

Antonio Sarri (IDS - Ingegneria Dei Sistemi SpA, Italy)

Stefano Sensani (IDS Ingegneria dei Sistemi S.p.A., Italy)

Luca Fiori (IDS Ingegneria dei Sistemi SpA, Italy)

Matteo De Filippi (IDS Ingegneria dei Sistemi S.p.A., Italy)

Stefano Bertini (IDS Ingegneria Dei Sistemi S. p. A, Italy)

Riccardo Cioni (IDS Ingegneria Dei Sistemi spa, Italy)

Monday, July 8

13: Passive Peak Voltage Sensor for Multiple Sending Coils Inductive Power Transmission System

Ghada Bouattour (ENIS, Tunisia)

Bilel Kallel (University of Sfax, Tunisia)

Houda Ben Jmaa Derbel (University of Sfax, Tunisia)

Olfa Kanoun (Chemnitz University of Technology, Germany)

14: Experimental Comparison of Extrapolation Techniques for 24-Hours Electromagnetic Fields Human Exposure Evaluation to UMTS and LTE Base Stations

Domenico Capriglione (University of Salerno, Italy)

Andrea Bernieri (University of Cassino, Italy)

Giovanni Betta (University of Cassino, Italy)

Gianni Cerro (University of Cassino and Southern Lazio, Italy)

Gianfranco Miele (University of Cassino and Southern Lazio, Italy)

Monday, July 8

15:30 - 16:00

Coffee Break

Room: Cafeteria

16:00 – 16:30

Special Session #3: Antenna and RCS Measurements

Room: VII

Special Session Presentation III

Title: "Rohde & Schwarz Antenna Measurements System"

Presenter: Alessandro Titta (Rohde & Schwarz)

Chairs: Claudio Curcio (Università di Napoli Federico II, Italy)

Marjo Heikkilä (Centria University of Applied Sciences, Finland)

16:30 The Combined use of Measurements and Simulations for the Low-Uncertainty Characterization of a Reference Source of Electromagnetic Field

Carlo Carobbi (University of Florence, Italy)

Andrea Guadagnoli (University of Florence, Italy)

16:50 Sensor-Integrated Aperture Coupled Patch Antenna

Giovanni Gugliandolo (Politecnico di Torino, Italy)

Krishna Naishadham (Georgia Institute of Technology, USA)

Nicola Donato (University of Messina, Italy)

Giovanni Neri (University of Messina, Italy)

Vito C Fericola (INRIM - Istituto Nazionale di Ricerca Metrologica, Italy)

17:10 Cylindrical Near Field Measurements for Wearable Antennas

J (Yiannis) Vardaxoglou (Loughborough University, United Kingdom (Great Britain))

17:30 Radar Image Based Near-Field to Far-Field Conversion Algorithm in RCS Measurements

Stefano Sensani (IDS Ingegneria dei Sistemi S.p.A., Italy)

Antonio Sarri (IDS - Ingegneria Dei Sistemi SpA, Italy)

Luca Fiori (IDS Ingegneria dei Sistemi SpA, Italy)

Riccardo Cioni (IDS Ingegneria Dei Sistemi spa, Italy)

Giacomo de Mauro (IDS Ingegneria dei Sistemi S.p.A., Italy)

Matteo De Filippi (IDS Ingegneria dei Sistemi S.p.A., Italy)

17:50 Development of a Novel Measurement Technique for Emulating Real Life Environment within a Semi Reverberating Chamber

Antonio Sorrentino (Università degli Studi di Napoli Parthenope, Italy)

Sergio Cappa (Università Parthenope, Italy)

Giuseppe Ferrara (Università Parthenope, Italy)

Maurizio Migliaccio (Universita' Napoli Parthenope, Italy)

Monday, July 8

18:30 – 19:30

Visit to the Roman Thermal Baths of Catania

19:30 – 21:00

Welcome Dinner

Location: Cafeteria

Tuesday, July 9

08:45 - 10:00

Special Session #2: Sensor Networks and Sensing Systems for Assistive Technology

Room: VII

Chairs: Sara Casaccia (Università Politecnica delle Marche, Italy)
Vincenzo Marletta (University of Catania, Italy)

- 8:45 NATIFLife - A Smart Sensor Network for Assistive Domotics**
Salvatore Castorina (University of Catania, Italy)
Bruno Andò (University of Catania, Italy)
Salvatore Baglio (University of Catania, Italy)
Ruben Crispino (DIEEI-University of Catania, Italy)
Salvatore Graziani (University of Catania, Italy)
Vincenzo Marletta (University of Catania, Italy)
Luca Porcaro (Viteco Srl, Italy)
Sebastiano Salupo (Salupo Sas, Italy)
- 9:00 An RGB-D based Framework for Ambient Assistive Living Applications**
Carl J. Debono (University of Malta, Malta)
Matthew Sacco (University of Malta, Malta)
Joshua Ellul (University of Malta, Malta)
- 9:15 Assistive sensor-based technology driven self-management for building resilience among people with early stage cognitive impairment**
Sara Casaccia (Università Politecnica delle Marche, Italy)
Roberta Bevilacqua (IRCCS INRCA, Italy)
Lorenzo Scalise (Università Politecnica delle Marche, Italy)
Gian Marco Revel (Università Politecnica delle Marche, Italy)
Lorena Rossi (INRCA, Italy)
Arlene Astell (University of Toronto, Canada)
Susanna Spinsante (Università Politecnica delle Marche, Italy)
- 9:30 Smart EMG-based Socks for Leg Muscles Contraction Assessment**
Alessandro Leone (CNR, Italy)
Lucia Giampetruzzi (CNR, Italy)
Pietro Siciliano (CNR, Italy)
Gabriele Rescio (CNR, Italy)
- 9:45 Vision optical-based evaluation of SensHand accuracy for Parkinson's disease motor assessment**
Erika Rovini (Scuola Superiore Sant'Anna, Italy)
Dario Esposito (Corobotics srl, Italy)
Laura Fabbri (IRCCS Fondazione Don Carlo Gnocchi, Italy)
Silvia Pancani (IRCCS Fondazione Don Carlo Gnocchi, Italy)
Federica Vannetti (Don Carlo Gnocchi Foundation, Italy)
Filippo Cavallo (Scuola Superiore Sant'Anna, Italy)

10:00 - 10:30

Special Session #2: Sensor Networks and Sensing Systems for Assistive Technology

Room: VII

Special Session Presentation IV

Title: "Solutions for IoT test challenges"

Presenter: Enrico Citti (Tektronix)

Tuesday, July 9

10:30 - 11:00

Coffee Break

Room: Cafeteria

11:00 - 11:30

Special Session #4: Intelligent sensors technologies for Structural health monitoring

Room: VII

Special Session Presentation V

Title: "Analysis on Bluetooth Mesh Network technology"

Presenter: Tomás O'Raghallaigh (Teledyne LeCroy)

11:30 - 12:30

Special Session #4: Intelligent sensors technologies for Structural health monitoring

Room: VII

Chairs: Luca De Marchi (University of Bologna, Italy)

Carlo Trigona (University of Catania, Italy)

11:30 Heterogeneous Sensor-network for Vibration-based SHM

Federica Zonzini (University of Bologna & ARCES-Advanced Research Center of Electronic Systems, Italy)

Michelangelo Maria Malatesta (University of Bologna-ARCES, Italy)

Denis Bogomolov (University of Bologna-ARCES, Italy)

Nicola Testoni (Università degli Studi di Bologna, Italy)

Luca De Marchi (University of Bologna, Italy)

Alessandro Marzani (University of Bologna, Italy)

11:50 Performance Analysis of an AIN Humidity Sensor based on TiO2 nanoparticles

Enza Panzardi (University of Siena, Italy)

Ada Fort (University of Siena, Italy)

Carlo Trigona (University of Catania, Italy)

Valerio Vignoli (University of Siena, Italy)

Elia Landi (University of Siena, Italy)

Marco Mugnaini (University of Siena, Italy)

12:10 Self-generating Microsensor with Meander Architecture for Performance Enhancement in Inertial Systems

Carlo Trigona (University of Catania, Italy)

V Sinatra (DIEEI, Italy)

Bruno Andò (University of Catania, Italy)

Salvatore Baglio (University of Catania, Italy)

12:30 - 13:00

Keynote Presentation II

Room: VII

Title: "Electronic citizen-centered electronic data exchange for personalized digital health"

Presenter: Ricardo Jardim-Goncalves (New University of Lisbon, UNINOVA, Portugal)

13:00 - 14:00

Lunch

Room: Cafeteria

Tuesday, July 9

14:00 - 14:30

Keynote Presentation III

Room: VII

Title: "(Air)space is the Final Frontier: Experiments with Learning, Sensing and Communications in UAVs"

Presenter: Kaushik Chowdhury (Northeastern University, USA)

14:30 - 15:30

POSTER SESSION 2

Room: VII

Chairs: Marco Carratu' (University of Salerno, Italy)

Stefania Zinno (University Federico II of Naples, Italy)

1: A Novel Reading and Writing Posture Reminding System based on Kalman Filtering Preprocessing and Genetic Algorithm Optimizing Neural Network Classification

Cheng Guo (Beijing Normal University, P.R. China)

Yujie Hu (Beijing Normal University, P.R. China)

Yifan Niu (Beijing Normal University, P.R. China)

Junqi Guo (Beijing Normal University, P.R. China)

2: Internet-oriented measurement and automation project for Industry 4.0 educational program

Annalisa Liccardo (University of Naples Federico II, Italy)

Mauro D'Arco (University of Naples Federico II, Italy)

Francesco Bonavolontà (Università di Napoli Federico II, Italy)

Leopoldo Angrisani (University of Naples Federico II, Italy)

Oscar Tamburis (University of Naples Federico II, Italy)

3: Smart Sensor Efficient Signal Processing for Earthquake Early Detection

Vincenzo Paciello (University of Cassino and Southern Lazio, Italy)

António Espírito Santo (University of Beira Interior, Portugal)

Francesco Abate (University of Salerno, Italy)

Gustavo Monte (UTN Facultad Regional Del Neuquen, Argentina)

4: An Experimental Evaluation of CRT-based Forwarding Technique

Giuseppe Campobello (University of Messina, Italy)

Antonino Segreto (University of Messina, Italy)

Nicola Donato (University of Messina, Italy)

5: A New Measurement System to Boost the IoMT for the Blood Pressure Monitoring

Francesco Bonavolontà (Università di Napoli Federico II, Italy)

Annalisa Liccardo (University of Naples Federico II, Italy)

Rosario Schiano Lo Moriello (Università degli Studi di Napoli Federico II, Italy)

Francesco Lamonaca (University of Sannio, Italy)

Domenico Luca Carnì (University of Calabria, Italy)

Vitaliano Spagnuolo (Unit of Internal Medicine - AO of Cosenza, Belgium)

Gioconda Grimaldi (Annunziata Hospital of Cosenza, Italy)

Antonio Colaprico (University of Miami Health System (UHealth), Italy)

Tuesday, July 9

6: Dynamic Autonomous Energy Consumption Measurement for a Wireless Sensor Node

Sabrina Khriji (Technische Universität Chemnitz, Germany & National School of Engineers of Sfax, Tunisia)
Ahmed Yahia Kallel (TU Chemnitz, Germany)
Sandeep Reedy (TU Chemnitz, Germany)
Dhouha El Houssaini (University of Technology, Germany & National School of Engineers of Sfax, Tunisia)
Inès Kammoun (ENIS, Tunisia)
Olfa Kanoun (Chemnitz University of Technology, Germany)

7: A measurement procedure for the optimization of a distributed indoor localization system

Ruben Crispino (DIEEI-University of Catania, Italy)
Bruno Andò (University of Catania, Italy)
Salvatore Baglio (University of Catania, Italy)
Salvatore Castorina (University of Catania, Italy)
Vincenzo Marletta (University of Catania, Italy)

8: Machine Learning and Deep Learning Based Traffic Classification and Prediction in Software Defined Networking

Ayşe Rumeysa Mohammed (University of Ottawa, Canada)
Shady Mohammed (University of Ottawa, Canada)
Shervin Shirmohammadi (University of Ottawa, Canada)

9: Virtual biosensors for the estimation of medical precursors

Salvatore Baglio (University of Catania, Italy)
Alessandro Cammarata (University of Catania, Italy)
Petramay Cortis (4Faculty of Medicine and Surgery, University of Malta, Italy)
Lucia Lo Bello (University of Catania, Italy)
Pietro Maddio (University of Catania, Italy)
Salvatore Nicosia (Azienda Ospedaliero - Universitaria, Italy)
Gaetano Patti (Università di Catania, Italy)
Stephen Sciberras (4Faculty of Medicine and Surgery, University of Malta, Italy)
Johann Scicluna (Faculty of Medicine and Surgery, University of Malta, Italy)
Vincenzo Scuderi (Azienda Ospedaliero - Universitaria, Italy)
Rosario Sinatra (University of Catania, Italy)
Carlo Trigona (University of Catania, Italy)

10: Nonlinear Smart Energy Harvesting

Carlo Trigona (University of Catania, Italy)
Bruno Andò (University of Catania, Italy)
Salvatore Baglio (University of Catania, Italy)

11: 6LoWPAN Protocol Based Infrared Sensor Network Human Target Locating System

Bo Yang (Beihang University, P.R. China)
Fuhuang Liu (Beihang University, P.R. China)
Lulu Yuan (Beihang University, P.R. China)

Tuesday, July 9

12: Measurements of Wearable Noninvasive Transducers for Sport Performance Improvement

Anna M Gueli (University of Catania, Italy)

M Ferrante (University of Catania, Italy)

Carlo Trigona (University of Catania, Italy)

Andrea Failla (University of Catania, Italy)

Maria Fiore (University of Catania, Italy)

13: LoRa Evaluation in Mobility Conditions for a Connected Smart Shoe Measuring Physical Activity

Susanna Spinsante (Università Politecnica delle Marche, Italy)

Angelica Poli (Università' Politecnica delle Marche, Italy)

Stefano Pirani (Università' Politecnica delle Marche, Italy)

Luca Gioacchini (Politecnico di Torino, Italy)

14: A Bacterial Cellulose based Mass Sensor

Salvatore Graziani (University of Catania, Italy)

Carlo Trigona (University of Catania, Italy)

Giovanna Di Pasquale (University of Catania, Italy)

Antonino Pollicino (Univesrità di Catania, Italy)

15: Understanding Evolution and Adoption of Top Level Domains and DNSSEC

Yo-Der Song (University of Auckland, New Zealand)

Aniket Mahanti (University of Auckland, New Zealand)

Soorya Ravichandran (University of Auckland, New Zealand)

16: Comparison of Mobile and Fixed Device Workloads in an Academic Web Server

Yo-Der Song (University of Auckland, New Zealand)

Aniket Mahanti (University of Auckland, New Zealand)

15:30 - 16:00

Coffee Break

Room: Cafeteria

16:00 - 18:00

ORAL SESSION I: Measurements and Networking for localization

Room: VII

Chairs: Antonio Moschitta (University of Perugia, Italy)

Marco Di Felice (University of Bologna, Italy)

16:00 Indoor Location Services through Multi-Source Learning-based Radio Fingerprinting Techniques

Luca Sciuillo (University of Bologna, Italy)

Angelo Trotta (University of Bologna, Italy)

Marco Di Felice (University of Bologna, Italy)

16:20 Experimental Investigation on Weather Changes Influences on Wireless Localization System

Dhouha El Houssaini (University of Technology, Germany & National School of Engineers of Sfax, Tunisia)

Amira Guesmi (ENIS, Tunisia)

Sabrina Khriji (Technische Universität Chemnitz, Germany & National School of Engineers of Sfax, Tunisia)

Thomas Keutel (University of Technology, Germany)

Kamel Besbes (University of Monastir & Centre for Research on Microelectronics & Nanotechnology CRMN Sousse, Tunisia)

Olfa Kanoun (Chemnitz University of Technology, Germany)

16:40 Indoor Object Classification for Autonomous Navigation Assistance Based on Deep CNN Model

Mouna Afif (University of Monastir, Tunisia)

Riadh Ayachi (University of Monastir, Tunisia)

Yahia Said (Faculty of Sciences of Monastir, University of Monastir, Tunisia)

Edwige E. Pissaloux (UPMC-Paris 6 University, France)

Mohamed Atri (Faculty of Sciences of Monastir, University of Monastir, Tunisia)

17:00 Ultrasound Time of Flight based positioning using the Bluetooth Low Energy protocol

Antonella Comuniello (University of Perugia, Italy)

Alessio De Angelis (University of Perugia, Italy)

Guido De Angelis (Regione Umbria, Italy)

Antonio Moschitta (University of Perugia, Italy)

17:20 The Use of Unmanned Aircraft System for the Radio Frequency Interference Measurements

Marjo Heikkilä (Centria University of Applied Sciences, Finland)

Arto Seppänen (Centria University of Applied Sciences, Finland)

Marjut Koskela (Centria University of Applied Sciences, Finland)

Jukka Pihonen (The Finnish Transport and Communications Agency, Finland)

Jan Engelberg (The Finnish Transport and Communications Agency, Finland)

Ari T. Pouttu (Centre for Wireless Communications University of Oulu, Finland)

Tuesday, July 9

17:40 High-resolution Thermopile Array sensor-based system for human detection and tracking in indoor environment
Bo Yang (Beihang University, P.R. China)
Nanhao Gu (Beihang University, P.R. China)

19:30 – 21:00

Gala Dinner and Award Ceremony

Location: Palazzo Manganelli

Wednesday, July 10

09:30 – 10:30

ORAL SESSION II: Sensors and Sensor Networks

Room: VII

Chairs: Vincenzo Paciello (University of Cassino and Southern Lazio, Italy)
Emiliano Sisinni (University of Brescia, Italy)

- 9:00 Capacitive Level Smart Sensors in the Management of Wastewater Treatment Processes**
Pedro Serra (University of Beira Interior, Portugal)
António Espírito Santo (University of Beira Interior, Portugal)
Joel Bonifácio (University of Beira Interior, Portugal)
Fabiana Relvas (University of Beira Interior, Portugal)
- 9:20 Sensors and control solutions for Smart-IoT façade modules**
Marco Arnesano (Università Politecnica delle Marche, Italy)
Bruno Bueno (Fraunhofer, Germany)
Alessandro Pracucci (Focchi Spa, Italy)
Sara Magnani (Focchi Spa, Italy)
Oscar Casadei (Focchi Spa, Italy)
Gian Marco Revel (Università Politecnica delle Marche, Italy)
- 9:40 A smart wireless sensor network for PM10 measurement**
Marco Carratu' (University of Salerno, Italy)
Matteo Ferro (University of Salerno, Italy)
Antonio Pietrosanto (University of Salerno & CEO of Metering Research srl, Italy)
Paolo Sommella (University of Salerno, Italy)
Vincenzo Paciello (University of Cassino and Southern Lazio, Italy)
- 10:00 A virtual augmentation for air quality measurement sensor networks in smart cities**
Stefano Pino (Engineering Ingegneria Informatica Spa, Italy)
Davide Storelli, Enza Giangreco
Marco Del Coco (Engineering Ingegneria Informatica S.p.A., Italy)
Valentina Chetta (Engineering Ingegneria Informatica S.p.A., Italy)
Giovanni Aiello (Eng'g Ingegneria Informatica SPA, Italy)
- 10:20 Multi-User ECG Monitoring System based on IEEE Standard 802.15.6**
Alessandra Galli Giorgi (University of Padova, Italy)
Giada Giorgi (University of Padova, Italy)
Claudio Narduzzi (Università' di Padova, Italy)
- 10:40 A sensing platform for postural behavior assessment**
Vincenzo Marletta (University of Catania, Italy)
Bruno Andò (University of Catania, Italy)
Salvatore Baglio (University of Catania, Italy)
Ruben Crispino (DIEEI-University of Catania, Italy)
Valeria Dibilio (AOU Policlinico Vittorio Emanuele of Catania, Italy)
G. Mostile (AOU Policlinico Vittorio Emanuele of Catania, Italy)
Alessandra Nicoletti (AOU Policlinico Vittorio Emanuele of Catania, Italy)
Mario Zappia (AOU Policlinico Vittorio Emanuele of Catania, Italy)

Wednesday, July 10

11:00 – 11:30

Coffee Break

Room: Cafeteria

11:30 - 13:10

ORAL SESSION III: Network performance evaluation, optimization and troubleshooting

Room: VII

Chairs: Bruno Andò (University of Catania, Italy)

Domenico Capriglione (University of Salerno, Italy)

11:30 Real Time Fault Detection on In-Vehicle Power Line Networks Based on Power Line Communication

Navish Lalbeeharry (University of Lille 1, France)

Virginie Degardin (University of Lille & IEMN, France)

Pierre Degauque (University of Lille, France)

Christophe Trebosc (Safran Electrical & Power, France)

11:50 MECANO: Integrated Measurement of Compute and Network Operations

Cedric Westphal (Huawei Innovation Center, USA)

JJ Garcia-Luna-Aceves (University of California at Santa Cruz & Palo Alto Research Center, USA)

Abdulazaz Albalawi (UC Santa Cruz, USA)

Asit Chakraborti (Huawei, USA)

Jianfei He (Huawei Technologies Co., Ltd., P.R. China)

Dirk Kutscher (University of Applied Sciences Emden/Leer, Germany)

12:10 QNetwork: AI-Assisted Networking for Hybrid Cloud Gaming

Alaa Eddin Alchalabi (University of Ottawa & Q Network Inc., Canada)

Shervin Shirmohammadi (University of Ottawa, Canada)

Shady Mohammed (University of Ottawa, Canada)

12:30 Evaluation of Machine Learning Algorithms for Anomaly Detection in Industrial Networks

Giuseppe Bernieri (University of Padua, Italy)

Mauro Conti (University of Padua, Italy)

Federico Turrin (University of Padua, Italy)

12:50 A Multi-label Classification Approach to Localization of Multiple Node Failures in Local DC Networks

Jose Cordova-Garcia (ESPOL, Ecuador)

Wednesday, July 10

13:10 – 13:30

Closing and Concluding Remarks

Room: VII

13:30 – 14:30

Lunch

Room: Cafeteria

15:00 – 16:00

TC-37 Meeting and Wrap-up table on "Measurements & Networking"

Room: VII