

PROGRAM

MONDAY

REGISTRATION

WELCOME – OPENING SESSION

9:15 KEYNOTE 1 – GENERALIZED MEASUREMENTS FOR QUANTUM INFORMATION APPLICATIONS

Giuseppe Vallone

COFFEE BREAK

SESSION 1 – DISTRIBUTED SENSING APPLICATIONS 1

Vincenzo Gallo, Marco Carratù and Vincenzo Paciello (University of Salerno, Italy)	IEEE 1451: Communication among smart sensors using MQTT protocol
Ester Catalanò (Università della Campania Luigi Vanvitelli, Italy); Raffaele Vallifuoco, Nunzio Cennamo and Luigi Zeni (University of Campania Luigi Vanvitelli, Italy); Aldo Minardo (Unicampania, Italy)	Brillouin scattering in optical tapers drawn from Ge-doped and F-doped silica fibers
Luca Schenato (National Research Council, Italy); Nicola Fabbian, Giorgia Dalla Santa and Paolo Simonini (University of Padova, Italy); Fabio De Polo (Province of Bolzano, Italy); Gianluca Marcato (National Research Council, Italy); Simonetta Cola (University of Padova, Italy)	Distributed optical fiber sensors for the soil temperature measurement in river embankments
Francesco Arcadio and Domenico Del Prete (University of Campania Luigi Vanvitelli, Italy); Aldo Minardo (Unicampania, Italy); Chiara Marzano (University of Campania Luigi Vanvitelli, Italy); Luigi Zeni and Nunzio Cennamo (University of Campania Luigi Vanvitelli, Italy)	Micro-liquid volume measurements realized by changing the plasmonic conditions via specialty optical fibers
Christopher Vaccaro, Jorge Valverde and Alberto Cruz (ESPOL University, Ecuador); Miguel Torres (Espol, Ecuador); Jose Cordova-Garcia (ESPOL, Ecuador)	Evaluating Low-cost Networked Energy Metering Systems: A University Campus Study
Paolo Caruso, Salvatore Dello Iacono, Domenico Di Caro and Vincenzo Paciello (University of Salerno, Italy)	Impedance Adaptation Technique to Improve Pipeline Communication Distance

LUNCH

POSTER 1

Paolo Ferrari, Paolo Bellagente, Alessandro Depari, Dhiego Fernandes Carvalho, Alessandra Flammini, Marco Pasetti, Stefano Rinaldi and Emiliano Sisinni (University of Brescia, Italy)	Improving LoRa-REP scalability in emergency scenarios by means of slotted delay
Roberto Maurizio Colombo (University of Brescia, Italy); Aamir Mahmood (Mid Sweden University, Sweden); Emiliano Sisinni and Paolo Ferrari (University of Brescia, Italy); Mikael Gidlund (Mid Sweden University, Sweden)	Low-cost SDR-based Tool for Evaluating LoRa Satellite Communications
Domenico Del Prete, Francesco Arcadio, Chiara Griffo, Dalila Cicatiello, Luigi Zeni and Nunzio Cennamo (University of Campania Luigi Vanvitelli, Italy)	An Arduino-based plasmonic sensor to detect rain and its analysis
Allal Djamel (LNE, France); Richard Bannister (University of Surrey, United Kingdom (Great Britain)); Koen Buisman (University of Surrey, United Kingdom (Great Britain) & Chalmers University of Technology, Sweden); Domenico Capriglione and Giulia Di Capua (University of Cassino and Southern Lazio, Italy); Martín García-Patrón (Instituto Nacional de Técnica Aeroespacial, Spain); Frauke Gellersen (Physikalisch-Technische Bundesanstalt, Germany); Thomas Gatzweiler (FH Aachen, Germany); Thomas Harzheim (FH Aachen - University of Applied Sciences & Heuermann HF-Technik GmbH, Germany); Holger Heuermann (FH Aachen, Germany); Johannes Hoffmann (Federal Institute of Metrology METAS, Switzerland); Alexander Izbrodin (University of Surrey, United Kingdom (Great Britain)); Karsten Kuhlmann (Physikalisch-Technische Bundesanstalt (PTB), Germany); Khitem Lahbacha (University of Cassino and Southern Lazio, Italy); Antonio Maffucci (University of Cassino and Southern Lazio & National Institute of Nuclear Physics, INFN-LNF, Italy); Gianfranco Miele (University of Cassino and Southern Lazio, Italy); Faisal Mubarak (VSL, The Netherlands); Thi Dao Pham (LNE, France); Martin Salter (National Physical Laboratory, United Kingdom (Great Britain)); Ahmed Sayegh (Physikalisch-Technische Bundesanstalt, Germany); Dilbagh Singh (National Physical Laboratory, United Kingdom (Great Britain)); Friederike Stein (Physikalisch-Technische Bundesanstalt, Germany); Markus Zeiler (METAS, Switzerland)	RF Measurements for Future Communication Applications: an Overview
Brady Shearan, Fowzia Akhter and Subhas Mukhopadhyay (Macquarie University, Australia)	Design, Development and Implementation of an IoT-Enabled Sensing System for Agricultural Farms
Annamaria Sârbu (Land Forces Academy Nicolae Bălcescu Sibiu, Romania); David Vatamanu (Land Forces Academy Nicolae Bălcescu, Romania); Simona Miclaus (Nicolae Bălcescu Land Forces Academy, Sibiu, Romania); George Mihai (ANCOM, Romania); Mirela Sorecau and Emil Sorecau (Technical University Cluj Napoca, Romania); Paul Bechet (Land Forces Academy Nicolae Bălcescu, Romania)	Computational and experimental characterization of EMF exposure at 3.5 GHz using electro-optical probes
Roberto Franchelli and Alessandro Gandolfo (Narda sts, Italy); Renzo Azaro (EMC Srl, Italy)	Networks of EMF Area Monitor for Distributed Human Exposure Monitoring: Performances Assessment in Simulated Realistic Scenarios
Pedro Casas (Austrian Institute of Technology (AIT), Austria); Sarah Wassermann (AIT Austrian Institute of Technology, Austria); Nikolas Wehner, Michael Seufert and Tobias Hoßfeld (University of Würzburg, Germany)	Not all Web Pages are Born the Same. Content Tailored Learning for Web QoE Inference
Gyula Simon and Gergely Vakulya (Óbuda University, Hungary); Márk Rátósi (University of Pannonia, Hungary)	On the Utilization of Equivalent Sampling in Undersampled Asynchronous Camera Communication Protocols
Stanislaw Grazioso (University of Naples Federico II, Italy); Annarita Tedesco (University of Bordeaux, France); Roberto Sabella and Salvatore Fusco (Herobots srl, Italy); Mario Selvaggio (University of Naples Federico II, Italy); Luigi Duraccio (Politecnico di Torino, Italy); Egidio De Benedetto, Antonio Lanzotti and Leopoldo Angrisani (University of Naples Federico II, Italy)	Using a Soft Growing Robot as a Sensor Delivery System in Remote Environments: A Practical Case Study
Nikola Djuric and Dragan Kljajic (Faculty of Technical Sciences, University of Novi Sad, Serbia); Teodora Gavrilov (University of Novi Sad, Serbia); Nadja Markovic Golubovic (Ministry of Environmental Protection, Serbia); Snezana Djuric (Institute BioSens, University of Novi Sad, Serbia)	The ICNIRP 2020 Guidelines and Standardization update of Serbian EMF radiation exposure limits
Consolatina Liguori, Vincenzo Paciello, Alessandro Ruggiero, Domenico Russo, Paolo Sommella and Giuseppe Di Leo (University of Salerno, Italy)	Acoustic Monitoring of Environmental Noise Based on Sampling Approach
Luigi Ferrigno (University of Cassino, Italy); Filippo Milano and Valentina Pingerna (University of Cassino and Southern Lazio, Italy); Gianni Cerro (University of Molise, Italy); Marco Laracca (Sapienza University of Rome, Italy)	Performance comparison in Ultra Wide Band positioning in sensor networks: least square minimization versus grid search approach

14:30 KEYNOTE 2 – LPWAN FROM THE EARTH TO THE SKY

Lorenzo Vangelista

COFFEE BREAK

SESSION 2 – DISTRIBUTED SENSING APPLICATIONS 2

Matthew Dunn (LeCroy Corporation, USA)	Error Management and Troubleshooting in Networks
Valerio Brunacci, Alessio De Angelis and Gabriele Costante (University of Perugia, Italy)	Development of a Cooperative Localization System using a UWB Network and BLE Technology
Irene Cappelli (University of Siena, Italy); Federico Carli (University of Pisa, Italy); Matteo Intravaia, Federico Micheletti and Giacomo Peruzzi (University of Siena, Italy)	A Machine Learning Model for Microcontrollers Enabling Low Power Indoor Positioning Systems via Visible Light Communication
Ada Fort, Elia Landi, Riccardo Moretti, Lorenzo Parri and Giacomo Peruzzi (University of Siena, Italy); Alessandro Pozzebon (University of Padova, Italy)	Hand-Arm Vibration Monitoring via Embedded Machine Learning on Low Power Wearable Devices
Irida Shallari (Mid Sweden University, Sweden); Vincenzo Gallo and Marco Carratù (University of Salerno, Italy); Mattias O'Nils (Mid Sweden University, Sweden); Consolatina Liguori (University of Salerno, Italy); Mazhar Hussain (Mid Sweden University, Sweden)	Image Scaling Effects on Deep Learning Based Applications
Alessandro Destro (Università di Padova, Italy); Giada Giorgi (University of Padova, Italy)	Reinforcement Learning applied to Network Synchronization Systems

PADUA BOTANICAL GARDEN GUIDED TOUR

WELCOME RECEPTION

TUESDAY

SESSION 3 – ANTENNA AND RCS MEASUREMENTS

Mr. Busch (Rhode & Schwarz GmbH & Co. KG, Germany)	Measurements for human exposure to EMF
Francesco D'Agostino, Flaminio Ferrara, Claudio Gennarelli, Rocco Guerriero and Massimo Migliozi (University of Salerno, Italy)	An Efficient Bi-Polar Near-Field Far-Field Transformation for Flat AUTs
Francesco Saccardi, Enrico Tartagliano, Andrea Giacomini and Lars Foged (Microwave Vision Italy, Italy); Paul Moseley (European Space Agency, Switzerland); Luis Rolo (European Space Agency, The Netherlands); Ruben Tena Sanchez (Microwave Vision Group (MVG), Italy)	Measurement of VHF Satellite Antennas using the Synthetic Probe Array Technique
Pasquale Beneduce (MBDA Italia S.p.A., Italy); Amedeo Capozzoli, Claudio Curcio and Angelo Liseno (Università di Napoli Federico II, Italy); Giovanni Petraglia (MBDA Missile Systems, Italy); Gaetano Prisco and Marcello Ranucci (MBDA Italia S.p.A., Italy); Chiara Sonatore (Università di Napoli Federico II, Italy)	Design and characterization of AESA prototype driven by a DTRM

10:20 KEYNOTE 3 – 5G IS HERE AND HAPPENING

Alessandro Pane

COFFEE BREAK

SESSION 4 – SECURITY IN NETWORKING

Jie Xu and Hu Aiqun (Southeast University, China)	Subframes Discrimination and Time Synchronization Methods in LTE-V2X System
Wafaa Mohammed Ridha Shakir and Ruwaida Abdulkareem (Al-Furat Al-Awsat Technical University, Iraq)	On Secure Communications for FSO Systems Over Generalized Turbulence Channels
Andrea Amodei and Domenico Capriglione (University of Cassino and Southern Lazio, Italy); Gianni Cerro (University of Molise, Italy); Gianfranco Miele (University of Cassino and Southern Lazio, Italy); Luigi Ferrigno and Giuseppe Tomasso (University of Cassino, Italy)	A rule-based approach for detecting Heartbleed cyber attacks
Alessandro Brighente (University of Padova, Italy); Mauro Conti and Gulshan Kumar (University of Padua, Italy); Reza Ghanbari (Kharazmi University, Iran); Rahul Saha (University of Padua, Italy)	Stopping Floods with Buckets: Attack and Countermeasure for IOTA Autopeering
Idio Guarino and Giampaolo Bovenzi (University of Naples Federico II, Italy); Davide Di Monda and Giuseppe Aceto (University of Napoli Federico II, Italy); Domenico Cionzo (University of Naples Federico II, Italy); Antonio Pescapé (University of Napoli Federico II, Italy)	On the use of Machine Learning Approaches for the Early Classification in Network Intrusion Detection

LUNCH

POSTER 2

Bruno Ando, Salvatore Baglio, Salvatore Castorina, Salvatore Graziani, Alberto Campisi and Vincenzo Marletta (University of Catania, Italy)	A Network of Monitoring Nodes to Analyze Dimensions of Volcanic Ash Samples
Salvatore Dello Iacono (University of Salerno, Italy); Antonio Pietrosanto (University of Salerno & CEO of Metering Research srl, Italy); Daniele Buonocore, Giuseppe Ciavolino and Giuseppe Di Leo (University of Salerno, Italy)	Mesh Overlay for wM-Bus Network
Giada Giorgi and Alessandro Pozzebon (University of Padova, Italy); Claudio Narduzzi (Università di Padova, Italy)	Waveform monitoring with LoRaWAN: Is it feasible?
Wuyan Sun, Chuyang Yuan and Wenjun Fan (Xi'an Jiaotong-Liverpool University, China)	A Measurement of Real-world Attack Connections toward Honeypots
Ingram Weeks (& Toshiba Research, United Kingdom (Great Britain)); Ben Holden (Toshiba Europe Ltd., United Kingdom (Great Britain)); Aleksandar Stanoev (Toshiba Europe Ltd, United Kingdom (Great Britain))	A Low Power System for Synchronising Buffered Air Quality Data
Giacomo Peruzzi (University of Siena, Italy); Alessandra Galli and Alessandro Pozzebon (University of Padova, Italy)	A Novel Methodology to Remotely and Early Diagnose Sleep Bruxism by Leveraging on Audio Signals and Embedded Machine Learning
Rafael Ferraz (Federal University of Paraná & UFPR, Brazil); Horacio Tertuliano, Filho (Universidade Federal do Paraná & UFPR, Brazil); Ana Paula Alves Torres (Brazil)	Long-range IoT Low Power device powered by energy collected from magnetic fields from charged conductors
Gabriele Di Renzone (University of Siena, Italy); Alessandro Pozzebon and Giada Giorgi (University of Padova, Italy)	Outdoor sports tracking by means of hybrid GPS-LoRaWAN localization
Gabriele Bandini, Andrea Motroni, Alice Buffi, Mirko Marracci and Bernardo Tellini (University of Pisa, Italy)	On the Effect of Position Uncertainty of the UHF-RFID Reader Trajectory in SAR-based Localization via UAV
Stefano Massardi, Marco Ghidelli and Luca Foletti (University of Brescia, Italy); Alberto Canton (Hospital Los Madronas, Spain); Matteo Lancini (University of Brescia, Italy)	Validation of a Ros-Based Synchronization System for Biomechanics Gait Labs
Filippo Battaglia, Giovanni Gugliandolo, Giuseppe Campobello and Nicola Donato (University of Messina, Italy)	EEG-over-BLE: A Novel Low-Power Architecture for Multi-Channel EEG Monitoring Systems
Helbert da Rocha (University of Beira Interior, Portugal); João Pereira (University of Beira Interior, Portugal); Tiago Rodrigues (University of Beira Interior, Portugal); Jose A. Salvado (EST IPCB, Portugal); António Espírito Santo (University of Beira Interior, Portugal)	An Energy-Efficient Process for Optimal Communication Synchronization in Low Power Wireless Smart Sensors
João Pereira (University Of Beira Interior, Portugal); António Espírito Santo (University of Beira Interior, Portugal)	Open Access Online Platform for Transducers Development Conforming the IEEE 1451
Marco Donald Migliore (University of Cassino, Italy); Sara Adda (ARAP Piemonte, Italy); Tommaso Aureli, Daniele Franci and Settimio Pavoncello (ARPA Lazio, Italy); Fulvio Schettino (Università degli Studi di Cassino, Italy); Nicola Pasquino (University of Naples Federico II, Italy); Tiziana Cassano (Arpa Puglia, Italy)	Some Notes on the Impact of the use of Dynamic Spectrum Sharing (DSS) on Maximum-Power Extrapolation techniques for Human Exposure Assessment to Electromagnetic Fields

15:15 KEYNOTE 4 – 5G NETWORKS: FROM THEORY TO PRACTICE

Giuseppe Vallone

COFFEE BREAK

SESSION 5 – NETWORK MONITORING AND ANALYSIS

Lorenzo Fenini (DELO Instruments, Italy)	Network Performance Monitoring in accordance to International standards: Measurements, Correlation and Analysis
Ayşe Rumeysa Mohammed and Shady Mohammed (University of Ottawa, Canada); David Côté (CIENA, Canada); Sherwin Shirmohammadi (University of Ottawa, Canada)	Stateless ARE: Action Recommendation Engine Without Network State Measurement
Junior Momo Ziazet and Brigitte Jaumard (Concordia University, Canada); Huy Quang Duong (Centre de Recherche Informatique de Montréal, Canada); Pooya Khoshabi (Concordia University, Canada); Emil Janulewicz (CIENA, Canada)	A Dynamic Traffic Generator for Elastic 5G Network Slicing
Luis A Garcia (University of Southern California Information Sciences Institute, USA); Genevieve Bartlett (Information Sciences Institute, University of Southern California, USA); Srivatsan Ravi (University of Southern California Information Sciences Institute, USA); Harun Ibrahim (University of Southern California, Information Sciences Institute, USA); Wesley Hardaker (University of Southern California Information Sciences Institute, USA); Erik Kline (USC – Information Sciences Institute, USA)	Interpretable Deep Learning for Explainable Encrypted Network Traffic Classification
Michael Rethfeldt (University of Rostock & Institute of Applied Microelectronics and Computer Engineering, Germany); Tim Brockmann, Richard Eckhardt, Benjamin Beichler, Lukas Steffen, Christian Haubelt and Dirk Timmermann (University of Rostock, Germany)	Extending the FLEXible Network Tester (FleNet) for IEEE 802.11s WLAN Mesh Networks
Won Park (Ericsson, USA); Nicolas Ferland (Ericsson, Inc., USA); Wenting Sun (Ericsson, USA)	Autoencoder for Network Anomaly Detection

GALA DINNER

WEDNESDAY

REGISTRATION

SESSION 6 HUMAN EXPOSURE TO CELLULAR NETWORKS

Nicola Pasquino (University of Naples Federico II, Italy)	The CT106 role of the Italian Electrotechnical Committee for the standardization in the context of measurement of human exposure to electromagnetic fields
Luca Chiaraviglio and Chiara Lodovisi (University of Rome Tor Vergata, Italy); Daniele Franci, Settimio Pavoncello and Tommaso Aureli (ARPA Lazio, Italy)	Six Months in the Life of a Cellular Tower: Is 5G Exposure Higher than pre-5G One?
Nikola Djuric and Dragan Kljajic (Faculty of Technical Sciences, University of Novi Sad, Serbia); Teodora Gavrilov (University of Novi Sad, Serbia); Vidak Otasevic (Regulatory Agency for Electronic Communications and Postal Services (RADET), Serbia); Snezana Djuric (Institute BioSens, University of Novi Sad, Serbia)	The EMF Exposure Measurement in Cellular Networks by Serbian EMF RATEL System
Giovanni Beta (University of Cassino, Italy); Domenico Capriglione and Gianfranco Miele (University of Cassino and Southern Lazio, Italy); Marco Donald Migliore (University of Cassino, Italy); Darko Suka (University of East Sarajevo, Bosnia and Herzegovina); Gianni Cerro (University of Molise, Italy)	Experimental Validation of 5G Pilot Signals' Urban Scenarios

9:50 KEYNOTE 5 – 5G NETWORKS: FROM THEORY TO PRACTICE

Giuseppe Vallone

COFFEE BREAK

TC-37 MEETING

CLOSING SESSION – LUNCH CEREMONY

BEIGHT LUNCH