



RFID-TA PROGRAM

<https://2023.ieee-rfid-ta.org/program-2>

| Monday 04Set23 | | Tuesday 05Sep23 | | Wednesday 06Sep23 | | |
|-------------------|--------------------------------------|--------------------|----------------------------------|--------------------------------------|----------------------------------|--|
| Hall | 08:00-09:0 Registration | | | | | |
| R1 | 09:00-09:30 Welcome Session | R1 | 09:00-09:30 Keynote Speaker 2 | R1 | 09:00-09:30 Keynote Speaker 3 | |
| R1 | 09:30-10:00 Keynote Speaker 1 | R1 | 09:30-11:20 TU1.L1 | R1 | 09:30-11:20 WE1.L1 | |
| R1 | 10:00-11:20 MO1.L1 | | | | | |
| Hall | 11:20-11:40 Coffee Break | Hall | 11:10-11:40 Coffee Break | Hall | 11:10-11:40 Coffee Break | |
| R1 R2 | 11:40-13:00 | | 11:40-13:00 | | R1 | |
| | MO2.L1 | MO2.L2 | TU2.L1 | TU2.L2 | | 11:40-13:00 WE2.L1 |
| UA | 13:00-14:30 Lunch | | UA | 13:00-14:30 Lunch | | |
| R1 R2 | 14:30-16:30 | | R1 | 14:30-16:30 TU3.L1 | | R1 |
| | MO3.L1 | MO3.L2 | | 14:30-16:30 Poster Session #02 | | |
| Hall | 16:30-16:45 Coffee Break | | Hall | 16:30-16:45 Coffee Break | | |
| Hall | 16:30-18:30 Poster Session #01 | | R1 | 16:45-17:45 Industrial Pannel | | |
| UA | 18:30-19:15 Welcome Drink | | Museum 01 | 18:30-20:00 Museum tour and Music | | UA |
| Hotel | 19h30-21h30 Dinner@Hotel Imperial | | | | | 19:30-22:30 Wine cellar underground museum |
| | | | | Museum 02 | | |



Detail technical Program | Monday 04Set

Oral Sessions

Room 1

Room 2

MO1.L1: RFIDs for healthcare applications

Mon, 4 Sep, 10:00 - 11:20 Portugal Time (UTC +1)

Location: Room 1

Session Type: Oral

Track: RFID applications in healthcare, wearable, precision agriculture, transportation, safety, security, inventory management, logistics, fashion, retail

MO1.L1.1: RFID-BASED ENDOLEAK DETECTION BY DISSOLVABLE ANTENNAS AND AUTO-TUNING IC

Mon, 4 Sep, 10:00 - 10:20 Portugal Time (UTC +1)

Federica Naccarato, Marco Di Cristofano, Gaetano Marrocco, University of Rome Tor Vergata, Italy

MO1.L1.2: TUNED HF COIL STRUCTURE DETECTING RFID/NFC TAGS FOR MEDICAL MONITORING PATCH

Mon, 4 Sep, 10:20 - 10:40 Portugal Time (UTC +1)

Antoine Diet, Yann Le Bilhan, Jie Sun, Marc Biancheri-Adler, Quan Zhang, Chadi Gannouni, GeePS, France

MO1.L1.3: A DURABLE AND FLEXIBLE, LOW-COST TAG ANTENNA DESIGN FOR UHF RFID WEARABLE APPLICATIONS

Mon, 4 Sep, 10:40 - 11:00 Portugal Time (UTC +1)

Sergio López-Soriano, Joan Melià, Universitat Oberta de Catalunya, Spairc, Josep Parrón, Universitat Autònoma de Barcelona, Spain

MO1.L1.4: CROSS-SENSITIVITY OF A DUAL-PORT POTENTIOMETRIC SENSOR BASED ON AUTO-TUNING RFID ICs

Mon, 4 Sep, 11:00 - 11:20 Portugal Time (UTC +1)

Francesca Maria Chiara Nanni, Nicoletta Panunzio, Gaetano Marrocco, University of Rome Tor Vergata, Italy

MO2.L1: Antennas for RFIDs

Mon, 4 Sep, 11:40 - 13:00 Portugal Time (UTC +1)

Location: Room 1

Session Type: Oral

Track: Antenna design and characterization

MO2.L1.1: DUAL-BAND FOLDED DIPOLE ANTENNA FOR HARMONIC RFID READERS

Mon, 4 Sep, 11:40 - 12:00 Portugal Time (UTC +1)

Vinicius Uchoa Oliveira, Nuno Borges Carvalho, Henrique Chaves, Instituto de Telecomunicações, Portugal

MO2.L1.2: DESIGN OF UHF RFID TAG ANTENNA APPLIED IN RAILWAY AXLE COUNTING

Mon, 4 Sep, 12:00 - 12:20 Portugal Time (UTC +1)

Wai-Son Kuan, Zi-Yu Pang, Kam-Weng Tam, Chi-Hou Chio, Sio-Weng Ting, University of Macau, China; Iok-Po Leong, Cheng Fong Computer Technology Company Limited, China

MO2.L1.3: LASER-INDUCED GRAPHENE FAN ANTENNA FOR RFID APPLICATIONS

Mon, 4 Sep, 12:20 - 12:40 Portugal Time (UTC +1)

Alessio Mostacico, Andrea Savia, Gianni Antonelli, Eugenio Martinelli, Gaetano Marrocco, University of Rome Tor Vergata, Italy

MO2.L1.4: RESPIRATION SENSING WITH EMBROIDERED RFID TAGS IN FACE MASKS

Mon, 4 Sep, 12:40 - 13:00 Portugal Time (UTC +1)

Mengxia Yu, National University of Singapore, Singapore; LanZhao Zhong, Silong Wang, Southern University of Science and Technology, China; Yongxin Guo, National University of Singapore, China; Terry Tao Ye, Southern University of Science and Technology, China

MO3.L1: Chipless RFIDs

Mon, 4 Sep, 14:30 - 16:30 Portugal Time (UTC +1)

Location: Room 1

Session Type: Oral

Track: Chipless RFID technology

MO3.L1.1: A NOVEL ROBOT BASED DATA ACQUISITION METHODOLOGY FOR CHIPLESS RFID SYSTEMS

Mon, 4 Sep, 14:30 - 14:50 Portugal Time (UTC +1)

Nadeem Rather, Roy B. V. B. Simorangkir, Cian O'Donnell, Dinesh R. Gawade, John L. Buckley, Brendan O'Flynn, Salvatore Tedesco, Tyndall National Institute, Ireland

MO3.L1.2: TIME-EFFICIENT READING PROCESS FOR MOTION-MODULATED CHIPLESS RFID

Mon, 4 Sep, 14:50 - 15:10 Portugal Time (UTC +1)

Ashkan Azarfar, Nicolas Barbot, Etienne Perret, University of Grenoble Alpes, France

MO3.L1.3: LIFE CYCLE ASSESSMENT OF UHF AND CHIPLESS RFID

Mon, 4 Sep, 15:10 - 15:30 Portugal Time (UTC +1)

Le Quang Hieu Nguyen, Univ. Grenoble Alpes Grenoble INP-Essiar, France; Etienne Perret, Univ. Grenoble Alpes, Grenoble INP - LCIS, France

MO3.L1.4: 3D AUTHENTICATION APPROACH TO ENHANCE THE SECURITY LEVEL FOR MILLIMETER-WAVE CHIPLESS TAGS

Mon, 4 Sep, 15:30 - 15:50 Portugal Time (UTC +1)

Raymundo AMORIM, Nicolas BARBOT, Romain SIRAGUSA, Etienne PERRET, Univ. Grenoble Alpes, France

MO3.L1.5: EVALUATION OF A U-SHAPED CONVOLUTIONAL NEURAL NETWORK FOR RCS BASED CHIPLESS RFID SYSTEMS

Mon, 4 Sep, 15:50 - 16:10 Portugal Time (UTC +1)

Nadeem Rather, Roy B. V. B. Simorangkir, John L. Buckley, Brendan O'Flynn, Salvatore Tedesco, Tyndall National Institute, Ireland

MO3.L1.6: DESIGN OF FLEXIBLE AND RIGID RFID CHIPLESS TAG USING HIGH PERFORMANCE SUBSTRATES

Mon, 4 Sep, 16:10 - 16:30 Portugal Time (UTC +1)

Vinicius Ferro, Universidade de São Paulo, Brazil; Pedro Rebelo, FIT - Instituto de Tecnologia, Brazil; Fatima Correa, Universidade de São Paulo, Brazil

MO2.L2: Wireless Power Transfer and low-power applications

Mon, 4 Sep, 11:40 - 13:00 Portugal Time (UTC +1)

Location: Room 2

Session Type: Oral

Track: Energy Harvesting and Wireless Power Transfer

MO2.L2.1: WPT AND NFC INTEROPERABILITY FOR WEARABLES WITH MINIATURIZED COILS

Mon, 4 Sep, 11:40 - 12:00 Portugal Time (UTC +1)

Richard Bernd Fischbacher, Jose Romero Lopez, David Pommerer, Graz University of Technology, Austria; Ralph Prestros, Bernhard Aulinger, Silicon Austria Labs, Austria; Wolfgang Bosch, Jasmin Grosinger, Graz University of Technology, Austria

MO2.L2.2: PLANAR ROTATING MAGNETIC FIELD INSIDE A CUBIC STRUCTURE FOR RFID/NFC APPLICATIONS

Mon, 4 Sep, 12:00 - 12:20 Portugal Time (UTC +1)

Jie Sun, Antoine Diet, Yann Le Bilhan, Marc Biancheri-Adler, Chadi Gannouni, Michel Police, GeePS, France

MO2.L2.3: LOW-POWER ULTRASONIC WAKE-UP THROUGH METAL

Mon, 4 Sep, 12:20 - 12:40 Portugal Time (UTC +1)

Thomas Schaeuble, Fabian Höflinger, University of Freiburg, Germany; Georg K. J. Fischer, Fraunhofer Institute for High-Speed Dynamics, Germany; Jan Helmerich, University of Freiburg, Germany; Ivo Häring, Fraunhofer Institute for High-Speed Dynamics, Germany; Stefan J. Rupitsch, University of Freiburg, Germany

MO2.L2.4: EXPLOITING SELF-TUNABLE RFID CHIPS FOR WIRELESS SENSING OF PERMITTIVITY TO ENABLE PASSIVE LOW-COST FOOD-QUALITY MONITORING SYSTEMS

Mon, 4 Sep, 12:40 - 13:00 Portugal Time (UTC +1)

Francesco Piccino, University of Salerno, Italy; Federica Naccarato, University of Rome Tor Vergata, Italy; Riccardo Colella, Francesco Paolo Chiterra, Luca Catarinacci, University of Salerno, Italy; Gaetano Marrocco, University of Rome Tor Vergata, Italy

MO3.L2: RFID-enabled localization systems

Mon, 4 Sep, 14:30 - 16:30 Portugal Time (UTC +1)

Location: Room 2

Session Type: Oral

Track: RFID-enabled localization systems

MO3.L2.1: AN IMPROVED PHASE-UNWRAPPING METHOD FOR UNWRAPPED PHASE BASED RFID LOCALIZATION

Mon, 4 Sep, 14:30 - 14:50 Portugal Time (UTC +1)

Wenhe Wang, Beijing Smartchip Microelectronics Technology Company Limited, China; Zhenlong Li, Guangzhou HKUST Fok Ying Tung Research Institute, China; Chong Wu, Zeyu Gong, Huazhong University of Science and Technology, China; Juan Du, Beijing Smartchip Microelectronics Technology Company Limited, China

MO3.L2.2: UHF-RFID TAG CHIP INTEGRATED READER ANTENNA ARRAY

Mon, 4 Sep, 14:50 - 15:10 Portugal Time (UTC +1)

Wei Li, Shilei Zheng, Xingqi Xuan, Wangjie Cen, Yulin Zhou, Xiaonan Hu, Xianmin Zhang, Zhejiang University, China

MO3.L2.3: FMCW INDOOR POSITIONING SYSTEM BASED ON HARMONIC TAG

Mon, 4 Sep, 15:10 - 15:30 Portugal Time (UTC +1)

Wangjie Cen, Zhejiang University, China; Ian Pratt, Hangzhou Scientia-IoT Ltd, China; Shilei Zheng, Xianmin Zhang, Xiaonan Hu, Zhejiang University, China

MO3.L2.4: AN INTELLIGENT OCCUPANCY DETECTION SYSTEM FOR SMART TOURISM BASED ON RFID PASSIVE TAG ANTENNA ARRAY AND RANDOM FOREST

Mon, 4 Sep, 15:30 - 15:50 Portugal Time (UTC +1)

Chao Yu Jiang, Bo Yu Wang, Tai Tai Oi, Kam Weng Tam, Long Chen, Chi Hou Chio, Cheng Teng, Ngai Kong, University of Macau, Macao

MO3.L2.5: TRAIN POSITION DETECTION AND WAYSIDE FACILITIES MONITORING SYSTEM USING ON-BOARD RFID READER

Mon, 4 Sep, 15:50 - 16:10 Portugal Time (UTC +1)

Minoru Tanaka, Hiroshi Yoda, Minoru Nakashima, Railway Technical Research Institute, Japan

MO3.L2.6: EVALUATION AND COMPARISON OF PLANAR PRINTABLE AND GROUNDED HARMONIC RFID TAGS

Mon, 4 Sep, 16:10 - 16:30 Portugal Time (UTC +1)

Maier Khalifeh, Jahangir Alam, Thomas Kaiser, Feng Zheng, Klaus Solbach, Ahmed El-Awamy, Duisburg-Essen University, Germany

Poster Sessions

MOPP: Poster session #1

Mon, 4 Sep, 16:30 - 18:00 Portugal Time (UTC +1)

Location: Poster Area

Session Type: Poster

Track: RFID applications in healthcare, wearable, precision agriculture, transportation, safety, security, inventory management, logistics, fashion, retail

MOPP.1: REPLAY CYBERATTACK DETECTION IN AN IOT-BASED HEALTHCARE SYSTEM USING RFID SENSORS

Rezvan Nozaripour, Khashayar Khorasani, Concordia University, Canada

MOPP.2: SECURING RFID-BASED ATTENDANCE MANAGEMENT SYSTEMS: AN IMPLEMENTATION OF THE AES BLOCK CIPHER ALGORITHM

Faith Ayodele, Harsehaj Singh, Eslam G. AbdAllah, Concordia University of Edmonton, Canada

MOPP.3: ENHANCING RADIO FREQUENCY IDENTIFICATION SYSTEMS SECURITY USING KLEIN ALGORITHM

Grishma Raj Gautam, Varshini Murali, Eslam G. AbdAllah, Concordia University of Edmonton, Canada

MOPP.4: MULTILAYER ANTI-COUNTERFEITING TAG WITH HOLOGRAPHIC ELEMENTS INTEGRATED INTO A COMPACT RFID SYSTEM

Cătălin Păruvelescu, Martino Aldrigo, Roxana Tomescu, Veronica Anăstăsoaică, Dana Cristea, National Institute for Research and Development in Microtechnologies - IMT Bucharest, Romania

MOPP.5: EARLY MALWARE DETECTION AND NEXT-ACTION PREDICTION

Zahra Jamadi, Amir G. Aghdam, Electrical and Computer Engineering Department, Concordia University, Montreal, Canada, Canada

MOPP.6: WIRELESS CARBON-BASED ELECTROCHEMICAL DOPAMINE SENSOR BRAIN IMPLANT

Stefanus Wirdatmadja, Wijami Ventslä, Janne Vesanen, Toni Björminen, Riikka Lahtinen, Lauri Sydänheimo, Tampere University, Finland; Merja Vuolteenaho, University of Helsinki, Finland; Leena Utkonen, Tampere University, Finland

MOPP.7: ROBUST RFID ANTENNA FOR TRACKING HEALTH PRODUCTS AND WATER BOTTLES

Pape Waly SARR, Ibra DIOUM, Aminata DIOP, ESP/UCAD, Senegal

MOPP.8: RFID-BASED INVENTORY SYSTEM FOR BIOMEDICAL EQUIPMENT IN PERUVIAN HEALTHCARE CENTERS: ENSURING DATA PRIVACY AND PREVENTING UNAUTHORIZED ACCESS.

Daniela Sandoval, Edu Marin, Estefany Macedo, Diego Segura, Alejandra Miranda, Sandra Perez, Pontificia Universidad Católica del Perú, Peru

MOPP.9: WEARABLE REAL TIME LOCATION SERVICES TECHNOLOGY FOR STAFF DURESS IN HEALTHCARE

Derick Jones, Ryan Hutton, Timothy Wallerich, Laurie Riekmann, Bonnie Handmacher, Heather Heaton, Mayo Clinic, United States of America

MOPP.10: ADDITIVE MANUFACTURING TECHNOLOGIES FOR WIRELESS ANTI-COUNTERFEITING SOLUTIONS

Simone Genovesi, Suraveep Choudhury, Armin Gharibi, Filippo Costa, Giuliano Manara, Università di Pisa, Italy



Oral Sessions

Room 1

Room 2

| TU1.L1: Transponders for Harsh Environments | |
|---|---|
| Tue, 5 Sep, 09:30 - 11:10 Portugal Time (UTC +1) | Location: Room 1 Session Type: Oral Track: RFIDs for backscattering |
| TU1.L1.1: INVESTIGATION OF PHASE OFFSET CALIBRATION FOR SAR-BASED RFID LOCALIZATION IN HARSH ENVIRONMENTS Tue, 5 Sep, 09:30 - 09:50 Portugal Time (UTC +1) | |
| Andrea Motroni, Gabriele Bandini, Alice Buffi, Paolo Nepa, University of Pisa, Italy | |
| TU1.L1.2: TOMOGRAPHY OF THE QUANTITY OF GRASS USING RFID PROPAGATION-BASED SENSING Tue, 5 Sep, 09:50 - 10:10 Portugal Time (UTC +1) | |
| Mathieu Le Breton, Géolithe, France; Laurent Baillet, Éric Larose, Univ. Grenoble Alpes, CNRS, ISTerre, France | |
| TU1.L1.3: ULTRA-LOW POWER RFID-BASED WAKE-UP ARCHITECTURES FOR WIRELESS SENSOR NETWORKS IN INDUSTRIAL PLANTS Tue, 5 Sep, 10:10 - 10:30 Portugal Time (UTC +1) | |
| Alessio Mostaccio, University of Roma Tor Vergata, Italy; Sara Amendola, Nicola D'Uva, RADIOGENSE Srl, Italy; Cecilia Occhiuzzi, Gaetano Marrocco, University of Roma Tor Vergata, Italy | |
| TU1.L1.4: WIRELESS PASSIVE TEMPERATURE SENSOR BASED ON A HARMONIC TRANSPONDER AND A THERMISTOR Tue, 5 Sep, 10:30 - 10:50 Portugal Time (UTC +1) | |
| Leonardo Balocchi, Valentina Palazzi, Stefania Bonafoni, Luca Roselli, Federico Alimenti, Paolo Mezzanotte, University of Perugia, Italy | |
| TU1.L1.5: MULTIFUNCTIONAL MSAW SENSOR BASED ON LOVE WAVE WITH RFID TAGS FUNCTIONALITIES Tue, 5 Sep, 10:50 - 11:10 Portugal Time (UTC +1) | |
| Prince Mngue, Laurine Meistersheim, Sami Hage-Ali, Cécile Floer, Sébastien Petit-Watelot, Laurent Badie, Daniel Lacour, Michel Hehn, Omar Elmazria, Jean Lamour Institute, France | |

| TU2.L1: Implementation and measurement of RFID-based systems | |
|---|---|
| Tue, 5 Sep, 11:40 - 13:00 Portugal Time (UTC +1) | Location: Room 1 Session Type: Oral Track: Channel measurements and modelling |
| TU2.L1.1: OPEN TESTING AND MEASUREMENT BENCH FOR UHF RFID Tue, 5 Sep, 11:40 - 12:00 Portugal Time (UTC +1) | |
| Nicolas Barbot, Vinisha CV, UGA, France | |
| TU2.L1.2: FABRICATION AND INITIAL EVALUATION OF HAND-STITCHED RFID DIPOLE ANTENNAS Tue, 5 Sep, 12:00 - 12:20 Portugal Time (UTC +1) | |
| Tiina Vuohijoki, S M Musfequr Rahman Rahman, Tampere University, Finland; Sari Merilampi, Satakunta University of Applied Sciences, Finland; Tiina Ihalainen, Johanna Virkki, Tampere University, Finland | |
| TU2.L1.3: ENVIRONMENT PROPAGATION SCANNING USING IDENTICAL UHF RFID TAGS CONFIGURATION Tue, 5 Sep, 12:20 - 12:40 Portugal Time (UTC +1) | |
| Hadi EL HAJI CHEHADE, Bernard UGUEN, Sylvain COLLARDEY, University of Rennes 1, France | |
| TU2.L1.4: BACKSCATTERING MODULATION 101: VNA MEASUREMENTS Tue, 5 Sep, 12:40 - 13:00 Portugal Time (UTC +1) | |
| Simon Hemour, Nicolas Barbot, Univ. Bordeaux, France | |

| TU2.L2: Wireless technologies for Industrial Applications | |
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| Tue, 5 Sep, 11:40 - 13:00 Portugal Time (UTC +1) | Location: Room 2 Session Type: Oral Track: RFID for Industry 4.0 and for Smart Cities |
| TU2.L2.1: A 920 MHZ UHF RFID TAG ANTENNA PRODUCED BY DROP CASTING T13C2TX MXENE Tue, 5 Sep, 11:40 - 12:00 Portugal Time (UTC +1) | |
| Omid Nilsan, University of British Columbia, Canada; Lingyi Bi, Yuri Gogotsi, Drexel University, United States of America; Mohammad H. Zarif, The University of British Columbia, Canada | |
| TU2.L2.2: 3D PRINTED RADIOFREQUENCY SENSING SYSTEM FOR ROBOTIC APPLICATIONS Tue, 5 Sep, 12:00 - 12:20 Portugal Time (UTC +1) | |
| Armin Gharibi, University of Pisa, Italy; Mahmoud Tavakoli, André F. Silva, University of Coimbra, Portugal; Filippo Costa, Simone Genovesi, University of Pisa, Italy | |
| TU2.L2.3: SPREAD SPECTRUM MODULATED MM-WAVE TAG FOR V2X APPLICATIONS Tue, 5 Sep, 12:20 - 12:40 Portugal Time (UTC +1) | |
| Antonio Lazzaro, Ramon Villarino, Marc Lazzaro, David Grinbau, Universitat Rovira i Virgili, Spain | |
| TU2.L2.4: SAW-RFID SENSORS FOR INDUSTRIAL APPLICATIONS Tue, 5 Sep, 12:40 - 13:00 Portugal Time (UTC +1) | |
| Sami Hage-Ali, Prince Mngue, Baptiste Paulmier, Jordan Maufay, Ulrich Youbi, Cécile Floer, Hamid M'Jahed, Thierry Aubert, Omar Elmazria, Université de Lorraine, CNRS, France | |

| TU3.L1: Next-generation RFID systems empowered by location awareness | |
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| Tue, 5 Sep, 14:30 - 16:30 Portugal Time (UTC +1) | Location: Room 1 Session Type: Oral Track: Next-generation RFID applications |
| TU3.L1.1: SHOWING PRODUCTS IN A RETAIL STORE DIGITAL TWIN WITH ITEM LOCATION CAPTURED BY AN RFID ROBOT Tue, 5 Sep, 14:30 - 14:50 Portugal Time (UTC +1) | |
| Rafael Pous, Universitat Pompeu Fabra, Spain; Marcos Chindemi, Keonn Technologies, Spain; Abdussalam Alajami, Universitat Pompeu Fabra, Spain | |
| TU3.L1.2: FOREIGN MATERIAL DETECTION AND LOCALIZATION IN STORED GRAIN WITH PASSIVE RFID TAG ARRAYS Tue, 5 Sep, 14:50 - 15:10 Portugal Time (UTC +1) | |
| Erbo Shen, Weidong Yang, Henan University of Technology, China; Xuyu Wang, Florida International University, United States of America; Shiwen Mao, Auburn University, United States of America | |
| TU3.L1.3: INCREASED RANGING ACCURACY OF RFID TAGS IN ETSI REGIONS USING 53MHZ WIDE DUAL BANDS Tue, 5 Sep, 15:10 - 15:30 Portugal Time (UTC +1) | |
| Mathieu Le Breton, Géolithe, France | |
| TU3.L1.4: EXPLOITING THE ELECTROMAGNETIC COUPLING TO ESTIMATE THE CLOSE MOTION OF UHF-RFID TAGGED OBJECTS Tue, 5 Sep, 15:30 - 15:50 Portugal Time (UTC +1) | |
| Emidio Di Giampaolo, Università degli Studi dell'Aquila, Italy; Francesco Martinelli, Fabrizio Romanelli, University of Roma Tor Vergata, Italy | |
| TU3.L1.5: RFID-BASED MONITORING OF HUMAN OPERATORS FOR SAFETY IN OUTDOOR WORKING SITES Tue, 5 Sep, 15:50 - 16:10 Portugal Time (UTC +1) | |
| Emanuele Tavanti, Andrea Motroni, Alice Buffi, Paolo Nepa, University of Pisa, Italy; Marco Pirozzi, Luciano Di Donato, Laura Tomassini, Alessandra Ferraro, INAIL, Italy | |



Oral Sessions

Room 1

WE1.L1: Low-power solutions for EH and RFID applications

Wed, 6 Sep, 09:30 - 11:10 Portugal Time (UTC +1)

Location: Room 1
Session Type: Oral
Track: Energy Harvesting and Wireless Power Transfer

WE1.L1.1: NOVEL ENERGY HARVESTING AND SWIPT SYSTEM AT 28 GHZ WITH A SIMPLE PHASED ARRAY (Wed, 6 Sep, 09:30 - 09:50 Portugal Time (UTC +1))

Naoki Shinohara, Bo Yang, Wensy Shao, Kyoto University, Japan; Kenji Itoh, Naoki Sakai, Kanazawa Institute of Technology, Japan; Naoki Hasegawa, Softbank corp., Japan

WE1.L1.2: ULTRALOW READ SENSITIVITY RFID SENSOR BASED ON TUNNEL DIODE VOLTAGE-CONTROLLED OSCILLATOR (Wed, 6 Sep, 09:50 - 10:10 Portugal Time (UTC +1))

Yero Dia, IMS Laboratory, France; Helena Ribeiro, Instituto de Telecomunicações, Portugal; Laurent Oyhénart, Elie Zaraket, Jean-Luc Lachaud, Ludvine Fadel, Valerie Vignerat, Corinne Dejous, IMS Laboratory, France; Nuno B. Carvalho, Instituto de Telecomunicações, Portugal; Simon Hemour, IMS Laboratory, France

WE1.L1.3: REALISTIC PERFORMANCE ANALYSIS OF FREQUENCY-DIVERSE ARRAYS RADIATION (Wed, 6 Sep, 10:10 - 10:30 Portugal Time (UTC +1))

Tommaso Tiben, Enrico Fazzini, Alessandra Costanzo, Diego Masotti, University of Bologna, Italy

WE1.L1.4: A 2.4 GHZ MODULAR ANTENNA SYSTEM FOR TRAIN INTEGRITY AND LOCALIZATION PURPOSES (Wed, 6 Sep, 10:30 - 10:50 Portugal Time (UTC +1))

Giacomo Paolini, Enrico Fazzini, Simone Trovarello, University of Bologna, Italy; Davide Amato, Sadel S.p.A., Italy; Diego Masotti, Alessandra Costanzo, University of Bologna, Italy

WE1.L1.5: RF HARVESTING FOR SCATTERING AT 1.8 VOLT BETWEEN BATTERY-LESS TRANSPONDER AND MOBILE TELEPHONES (Wed, 6 Sep, 10:50 - 11:10 Portugal Time (UTC +1))

Matthias Schütz, idp invent ag, Switzerland

WE2.L1: RFID-based sensors and wireless communication

Wed, 6 Sep, 11:40 - 13:00 Portugal Time (UTC +1)

Location: Room 1
Session Type: Oral
Track: RFID sensors

WE2.L1.1: HYBRID TIME/PHASE DOMAIN ELECTROMAGNETIC ENCODERS BASED ON ELECTRIC LC (ELC) RESONATORS (Wed, 6 Sep, 11:40 - 12:00 Portugal Time (UTC +1))

Ferran Paredes, Amir Karami-Horestani, Ferran Martín, Universitat Autònoma de Barcelona, Spain

WE2.L1.2: DETECTION OF WATER DROP VOLUME BASED ON CHIPLESS RFID RADAR APPROACH (Wed, 6 Sep, 12:00 - 12:20 Portugal Time (UTC +1))

Florian Requena, Darine Kaddour, Nicolas Barbot, Etienne Perret, Univ. Grenoble Alpes, Grenoble INP, LCIS, France

WE2.L1.3: SYMBOL PAIR MODULATION FOR PHASE-CANCELLATION ROBUST TAG-TO-TAG COMMUNICATIONS (Wed, 6 Sep, 12:20 - 12:40 Portugal Time (UTC +1))

R.J. de Jong, A.B.J. Kokkeleer, University of Twente, Netherlands

WE2.L1.4: FEASIBILITY OF RFID-BASED CONTROL OF RECONFIGURABLE INTELLIGENT SURFACES (RISS) FOR WIRELESS COMMUNICATION SYSTEMS (Wed, 6 Sep, 12:40 - 13:00 Portugal Time (UTC +1))

Francesco Lestini, University of Rome Tor Vergata, Italy; Gaetano Marrocco, Cecilia Occhuzzi, University of Rome Tor vergata, Italy

Poster Sessions

WEPP: Poster session #2

Wed, 6 Sep, 14:30 - 16:15 Portugal Time (UTC +1)

Location: Poster Area
Session Type: Poster
Track: Antenna design and characterization

WEPP.1: IMPACT OF YARN ON A TEXTILE UHF RFID TAG

Raul Fernández-García, Universitat Politècnica de Catalunya, Spain; Marc Martínez-Estrada, Universitat Politècnica de Catalunya, Spain; Jordi Bonache, Universitat Autònoma de Barcelona, Spain; Ignacio Gil, Universitat Politècnica de Catalunya, Spain; Chengyang Luo, Science and Technology on Reliability Physics and Application of electronic Components laboratory, China

WEPP.2: HANDS-ON 2.4 GHZ RFID

Nicolas Barbot, UGA, France

WEPP.3: UTILIZATION OF 3D PRINTING TECHNIQUE FOR MANUFACTURING PLANAR MARCHAND BALUN FED UHF VIVALDI ANTENNA

Muhammad Farhan Maulana, Institut Teknologi Bandung, Indonesia; Zulfı Zulfı, Telkom University, Indonesia; Achmad Munir, Institut Teknologi Bandung, Indonesia

WEPP.4: DUAL-BAND LOOP ANTENNA FOR UHF RFID AND ISM BAND

Vinicius Uchoa Oliveira, Nuno Borges Carvalho, Universidade de Aveiro, Portugal

WEPP.5: FRACTIONAL DELAYED DETECTION FOR UNSTABLE SUBCARRIER-CODED BACKSCATTER LINK

Zidan Zhao, Jin Mitsugi, Keio University, Japan

WEPP.6: NOVEL FREQUENCY SELECTIVE SURFACE MADE OF LASER-INDUCED GRAPHENE

Yann Houeix, Francisco J. Romero, Diego P. Morales, Noel Rodriguez, University of Granada, Spain; Darine Kaddour, University Grenoble Alpes, Grenoble INP, Laboratoire de Conception et d'Intégration des Systèmes, France

WEPP.7: CHALLENGES ON THE DESIGN OF LOW-COST RFID CHIPLESS TAG

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