

Programme in detail

Thursday, October 28

08:45 - 09:10 **Opening ceremony, Welcome words**
EEST | GMT +3h

Cristian GAVRILESCU, *Continental Automotive, Timișoara, Romania*

Aurel GONTEAN, *University Politehnica of Timișoara, Romania*

Klaus Juergen WOLTER, *TU Dresden Germany*

Thursday, October 28

09:15 - 11:10 **Plenary Oral Session 1**
EEST | GMT +3h

Session Chair: Pavel MACH, Technical University of Prague, Czech Republic

Session Co-Chair: Ovidiu Aurel POP, Technical University of Cluj-Napoca, Romania

09:15 KN1.1 *Why is now the right time to start digitalizing electronics manufacturing with an end-to-end holistic solution*

Oren Manor, Siemens

09:55 O1.1 *Activation of the polyvalent functionality for the optical filters using metamaterials*

Daniela Ionescu (Gh. Asachi Technical University of Iasi, Romania, Department of Telecommunications and Informational Technologies)

10:20 O1.2 *Clustering of Image Data to Enhance Machine Learning Based Quality Control in THT Manufacturing*

Nils Thielen (Friedrich-Alexander-University Erlangen-Nürnberg, Institute for Factory Automation and Production Systems); Zonghan Jiang (Friedrich-Alexander-University Erlangen-Nürnberg); Konstantin Schmidt (Friedrich-Alexander-Universität Erlangen-Nürnberg / Lehrstuhl FAPS); Reinhardt Seidel (Friedrich-Alexander University Erlangen-Nuremberg); Christian Voigt (Friedrich-Alexander-Universität Erlangen-Nürnberg / Lehrstuhl FAPS); Andreas Reinhardt (SEHO Systems GmbH); Jörg Franke (Institute for Factory Automation and Production Systems)

10:45 O1.3 *A Non-invasive Diagnosis Tool Based on Hepatorenal Index For Hepatic Steatosis*

Georgiana Simion (Politehnica University Timisoara)

Thursday, October 28

11:20 - 13:30 **Plenary Oral Session 2**
 EEST | GMT +3h

Session Chair: Christopher BAILEY, University of Greenwich, UK

Session Co-Chair: Dan PITICĂ, Technical University of Cluj-Napoca, Romania

11:20 KN2.1 MID Technologies for Microelectronic Packaging

Jörg Franke, University of Erlangen-Nuremberg (FAU), Institute for Factory Automation and Production Systems (FAPS)

12:00 KN2.2 New Architecture for SW defined vehicle and effects on Semiconductor Components

Theodor Maier, Continental Automotive GmbH

12:40 O2.1 - Effect of Ge doping on electrochemical migration of SAC solder alloys in 0.5 M NaCl solution

Ali Gharabeh (BME-ETT); Bálint Medgyes (BME-ETT)

13:05 O2.2 - Effect of Water on the Photovoltaic Performance of TiO₂ Based Dye-Sensitized Solar Cells Using I-/I³⁻ Redox Couple

Melinda Vajda (Politehnica University Timisoara); Daiana Albulescu (Politehnica University Timisoara); Daniel Ursu (National Institute of Research and Development for Electrochemistry and Condensed Matter); Elisei S. Ilies (Politehnica University Timișoara); Magdalena Marinca (Politehnica University of Timisoara); Aurel Gontean (Politehnica Univ. Timisoara); Nicolae Miclau (Politehnica University of Timisoara); Marinela Miclau (National Institute of Research and Development for Electrochemistry and Condensed Matter); Narcis Duteanu (Politehnica University of Timisoara)

Thursday, October 28

14:20 - 14:50 **Industrial Session 1**
 EEST | GMT +3h

Session Chair: Viorel NICOLAU, IMAPS Romania, Dunărea de Jos University of Galați, Romania

Session Co-Chair: Bogdan MIHĂILESCU, University Politehnica of Bucharest, Romania

Continental Automotive Romania

MIELE

Thursday, October 28

15:00 - 16:30 Poster Session 1 (Start with a pitching session*)

EEST | GMT +3h **Each author must deliver a maximum 1 minute video presentation of her/his work. The e-Poster evaluation will take place in the assigned Room.*

Session Chair: Gabriel CHINDRIȘ, Technical University of Cluj-Napoca, Romania

Session Co-Chair: Mihai BRANZEI, University Politehnica of Bucharest, Romania

Technical assistant: Cristina LEPĂDATU, Association for Promoting Electronic Technology Bucharest

Room 1

P1.1 Covid-19 Approved Mask Detection using Mathematical Morphology

Dumitru Abrudan (UPB); Ana-Maria Dragulinescu (UPB)*; Dragos Nicolae Vizireanu (Politehnica University of Bucharest)

P1.2 Wearable 2.4GHz Antenna on Textile Substrate

Mircea-Alexandru I Călin (Polytechnic University of Bucharest)*

P1.3 Monitoring device for freight trains

Cristian Aghion (Electronics Faculty - TUIASI University)*

P1.4 Printed Antenna Structures

Jordan E Cristian (Continental Automotive)*

Room 2

P1.5 IoT module for air quality measurement

Niculescu Ana-Maria (UPB-CETTI); Moise M Vasile Madalin (UPB-CETTI)*; Pavel Daniela-Mihaela (UPB-CETTI); Elisei Nicolae (UPB-CETTI); Dumitrascu Andreea (UPB-CETTI)

P1.6 IoT-based Smart Water Management Systems

Ana-Maria Dragulinescu (UPB)*; Cristina Balaceanu (BEIA Consult & UPB); Filip-Emanuel Osiac (UPB, Beia); Roxana Roșcăneanu (UPB); Veronica Sanda Chedea (SCDVV Blaj); George Suci (BEIA Consult & UPB); Mirel Ciprian Păun (Universitatea Maritimă Constanța); Ștefania Bucuci (Universitatea Maritimă Constanța)

P1.7 IoT Technology for Vineyard Monitoring

Mihaela E. Hnatiuc (Constanta Maritime University)*; Aurora Ranca (SCDVV MURfatlar); Victoria Artem (SCDVV MURfatlar); Bogdan Hnatiuc (University); Sorin Sinte (University); Simona Ghita (Maritime University of Constanta)

P1.8 The Methods for Vine Disease Identification

Mihaela E. Hnatiuc (Constanta Maritime University)*; Bogdan Hnatiuc (University); Sorin Sinte (University); Simona Ghita (Maritime University of Constanta); Aurora Ranca (SCDVV MURfatlar); Victoria Artem (SCDVV MURfatlar); Bogdan-Cristian Savin (University)

Room 3***P1.9 Analysis and implementation of a band tracking system***

Ionel Horea Baci (Technical University of Cluj Napoca)*

P1.10 Testing of the Noise Measurement System for GMR Sensors

Ana Cristina Davidas (Technical University of Cluj-Napoca)*; Ovidiu A. Pop (Technical University of Cluj-Napoca); Alin Grama (Technical University of Cluj-Napoca); Elena-Mirela Stetco (Technical University of Cluj-Napoca); Traian Petrisor (Technical University of Cluj-Napoca)

P1.11 Effects of Pollution on Radio Transmissions

Loredana M Burciu (ETTI,UPB)*; Radu P Fotescu (ETTI,UPB); Rodica Constantinescu (ETTI, UPB); Paul Svasta (UPB-CETTI)

P1.12 Sniffer. Testing the radio function of water meters.

Fabian-Manuel Butean (UPT); I. I. Stînga (Politehnica Univ. Timisoara), Ioan Lie (Politehnica University Timisoara)*

Room 4***P1.13 Research on the extension of the life cycle of high power electricity storage devices***

Irina B Bacis (UPB-CETTI); Lucian A Perisoara (University Politehnica of Bucharest)*; Alexandru Vasile (UPB-CETTI)

P1.14 Piezoelectric Energy Harvesting using SSHI Technique

Corina N Covaci (UPT)*; Aurel Gontean (Politehnica Univ. Timisoara)

P1.15 The influence of the SARS-CoV-2 on electricity consumption in Romania

Marius-Alexandru Dobrea (University Politehnica of Bucharest)*; Mihaela Vasluianu (UTCB); Giorgian Neculoiu (UTCB); Ana Moldoveanu (UPB)

P1.16 The Experimental Determinations at the Wind Farm Fantanele – Cogealac in Dobrogea

Joian R Radu Virgil (UTCN)*; Claudiu Lung (Technical University of Cluj Napoca); Horgos Mircea (Technical University of Cluj Napoca)

Room 5***P1.17 Improved Affine Projection Algorithm for the Identification of Multilinear Forms***

Laura-Maria Dogariu (University Politehnica of Bucharest)*

P1.18 Spectrometric Milk Analyzer

Ioana-Adriana Potarniche (Technical University of Cluj-Napoca)*; Ramona Galatus (Technical University of Cluj-Napoca)

P1.19 The Impact of the Sub-circuits Parameters on the Efficiency of a Charge Pump

Ionelia-Bianca Brezeanu (On Semiconductor Romania)*; Catalin Botezatu (ON Semiconductor Romania); Alexandru Vasile (UPB-CETTI); Gheorghe Brezeanu (University POLITEHNICA of Bucharest)

P1.20 Measurement application for UV-C irradiation intensity evaluation

Nicu-Serban POP (University Politehnica Timișoara); Raul C Ionel (Univ. Politehnica Timisoara)*; Liliana Matiu-Iovan (Univ. Politehnica Timisoara); Laurentiu-Valentin Ordodi (Politehnica University Timisoara, Faculty of Industrial Chemistry and Environmental Engineering)

Room 6**P1.21 An accurate prediction of PM2.5 concentration for a web application**

Dumitru Iulian Nastac (POLITEHNICA University of Bucharest)*; Andrei Alexandrescu (POLITEHNICA University of Bucharest); Andrei Daniel Andronescu (POLITEHNICA University of Bucharest)

P1.22 Remote Control System Based on Power Line Communication

Daniel Visan (University of Pitesti)*; Ioan Lita (University of Pitesti)

P1.23 Multipoint Data Acquisition System for Thermal Analysis of Electronic Modules

Daniel Visan (University of Pitesti)*; Ioan Lita (University of Pitesti)

P1.24 LC Oscillator Design Used in Sensor Measurement based on Embedded Technology

Septimiu Pop (Technical University Cluj Napoca)*; Vlad Bande (Technical University Cluj Napoca)

Room 7**P1.25 Mobile Application for Control and Monitoring of Electronic System for Management of Energy Flows in Residential Premises**

Jordan Stoev (University of Ruse); Snezhinka Zaharieva (University of Ruse)*; Adriana N. Borodzhieva (University of Ruse)

P1.26 Digital control of a health monitoring system

Roland Șimon (Polytechnic University of Timisoara); Adrian Popovici (Polytechnic University of Timisoara)

P1.27 Ultrasonic indoor navigation prototype for visual impaired users

Papara Radu (Technical University of Cluj-Napoca)*

P1.28 Electronic module for control of energy source

Jordan Stoev (University of Ruse); Snezhinka Zaharieva (University of Ruse)*; Adriana N. Borodzhieva (University of Ruse)

Room 8**P1.29 Analysis of Systems for Supporting Precision Agriculture with Renewable Energy**

Seher Kadirova (University of Ruse "Angel Kanchev")*; Zhivko Kolev (University of Ruse)

P1.30 Proposal of energy independent greenhouse

Elisei S Ilies (Politehnica University Timișoara)*; Magdalena Marinca (Politehnica University of Timisoara); Szilárd Bulárka (UPT); Melinda Vajda (Politehnica University Timisoara); Daiana Albulescu (Politehnica University Timisoara)

P1.31 Role of 5G in Vehicular Network for Smart Vehicles in Smart Cities

George Suci (BEIA Consult & UPB)*; Ijaz Hussain (BEIA); Ioana Esanu (BEIA & UPB); Robert I Vatasoiu (BEIA Consult International); Marius Vochin (University Politehnica of Bucharest)

Thursday, October 28

16:40 - 18:55

Plenary Oral Session 3

EEST | GMT +3h

Session Chair: Balázs ILLÉS, Budapest University of Technology and Economics, Hungary

Session Co-Chair: Ioan LIȚĂ, University of Pitești, Romania

16:40 KN3.1 - Car Environment Conditions vs. Thermal Chamber

Cristina Mihaela Drăgan, Continental Automotive Timisoara

17:20 O3.1 - Realization and Testing of Electrodes for Supercapacitors based on MOFs and Activated Carbon

Rodica C. Negroiu (UPB-CETTI); Paul Svasta (UPB-CETTI); Mihaela Ramona Buga (National Research and Development Institute for Cryogenic and Isotopic Technologies – ICSI); Adnana Spinu Zaulet (National Research and Development Institute for Cryogenic and Isotopic Technologies – ICSI); Cosmin Ungureanu (National Research and Development Institute for Cryogenic and Isotopic Technologies – ICSI)

17:45 O3.2 - About narrow band optical digital filters based on metamaterials

Daniela Ionescu (Gh. Asachi Technical University of Iasi, Romania, Department of Telecommunications and Informational Technologies); Gabriela Apreotesei (Gh. Asachi Technical University of Iasi, Department of Physics)

18:10 O3.3 - 3D Helmholtz Coil System Design for Measuring the Thermal Conductivity of Magnetic Nanofluids

Rahime ALSANGUR (The Graduate School of Natural and Applied Sciences, Dokuz Eylül University, İzmir, Turkey); Serkan Doganay (Department of Mechatronics Engineering, İzmir Kâtip Çelebi University, İzmir, Turkey); Alpaslan Turgut (Mechanical Engineering Department, Dokuz Eylül University, İzmir, Turkey); Levent Cetin (Mechatronics Engineering Department, Izmir Katip Celebi University, Izmir, Turkey)

Friday, October 29

08:30 - 10:00

Poster Session 2 (Start with a pitching session*)

EEST | GMT +3h **Each author must deliver a maximum 1 minute video presentation of her/his work. The e-Poster evaluation will take place in the assigned Room.*

Session Chair: Norocel CODREANU, University Politehnica of Bucharest, Romania

Session Co-Chair: Bálint MEDGYES, Budapest University of Technology and Economics, Hungary

Technical assistant Cristina LEPĂDATU, Association for Promoting Electronic Technology Bucharest

Room 1

P2.1 VLSI Design of a 5th-order Gm-C Low-Pass Active Filter in CMOS Technology

Radu Gabriel Bozomitu ("Gheorghe Asachi" Technical University of Iasi)*; Aurica Zara ("Gheorghe Asachi" Technical University of Iasi)

P2.2 On the use of Virtual Negative Resistance in Physical Selective Electronic Circuits

Nistor Nicusor (Dunarea de Jos University of Galati)*; Radu C. V. Belea (University of Galati); Dorel Aiordachioaie (Dunarea de Jos University of Galati)

P2.3 Cascaded Adaptive Filters in a Multilinear Approach for System Identification

Alexandru George A Rusu (University Politehnica of Bucharest)*; Silviu Ciochina (University Politehnica of Bucharest); Constantin Paleologu (University Politehnica of Bucharest)

P2.4 Effective Modelling of Interconnects with Domain Partitioning and Model Order Reduction

Gabriela Ciuprina (University Politehnica of Bucharest)*; Daniel Ioan (University Politehnica of Bucharest)

Room 2

P2.5 The Development Process of a Quick SMS Auto Responder App for Car Drivers or Busy People

Roland Szabo (Applied Electronics Department, Faculty of Electronics, Telecommunications and Information Technologies, Politehnica University Timisoara)*; Aurel Gontean (Politehnica Univ. Timisoara); Andrei Burta (Faculty of Electronics, Telecommunications and Information Technologies, Politehnica University Timisoara)

P2.6 The Development of a Head-up Display (HUD) App on the Android Mobile Operating System

Roland Szabo (Applied Electronics Department, Faculty of Electronics, Telecommunications and Information Technologies, Politehnica University Timisoara)*; Aurel Gontean (Politehnica Univ. Timisoara); Andrei Burta (Faculty of Electronics, Telecommunications and Information Technologies, Politehnica University Timisoara)

P2.7 Assisted OCT diagnosis embedded on Raspberry Pi 4

Loredana Buzura (Technical University of Cluj-Napoca)*; Ramona Galatus (Technical University of Cluj-Napoca)

P2.8 Python based portable system for fast characterisation of foods based on spectral analysis

Loredana Buzura (Technical University of Cluj-Napoca)*; Ramona Galatus (Technical University of Cluj-Napoca)

Room 3

P2.9 Automation of Information Exchange Between Neural Networks

Martin Kaloev (University of Ruse)*; Georgie Krastev (University of Ruse)

P2.10 Retrofitting Video Surveillance Systems using Deep Learning Technologies

Mihai T Andreescu (Politehnica University Timisoara)*; Radu Mirsu (Politehnica University Timisoara); Catalin Caleanu (Politehnica University Timisoara)

P2.11 Efficient Unaligned Memory Access of Tightly Packed Weights for Deep Neural Network Inference on Edge Devices

Ciprian Seiculescu (University "Politehnica" of Timisoara)*

P2.12 Deep Neural Network Hardware Survey

Rotar Danut (Continental Automotive Romania SRL)*

P2.13 Machine Learning Analysis of Time Series Data from IoT Embedded Systems

Vlad Voicu (Universitatea Tehnica din Cluj-Napoca)*

Room 4

P2.14 CBIR for urban buildings using A-KAZE features

Ciprian Orhei (Politehnica University of Timisoara)*; Lucian Radu (Politehnica University of Timisoara); Muguras Mocofan (Politehnica University of Timisoara); Silviu Vert (Politehnica University of Timisoara); Radu VasIU (Universitatea Politehnica Timisoara)

P2.15 Protocol over UART for Real-Time Applications

Mihai Daraban (Technical University of Cluj-Napoca)*; Cosmina Corches (Technical University of Cluj-Napoca); Adrian Taut (Technical University of Cluj-Napoca); Gabriel Chindris (UT Cluj-Napoca)

P2.16 Real-time Spatialized Sound Generator on Embedded Wearable Platform

Mihai Daraban*; Cornel Amariei; Agota Faluvegi; Karoly Lengyel

P2.17 Adaptive data predictions for the energy sector at national level

Dumitru Iulian Nastac (POLITEHNICA University of Bucharest)*; Paul-Vasile Vezetu (POLITEHNICA University of Bucharest); Andrei-Raoul Morariu (POLITEHNICA University of Bucharest)

Room 5

P2.18 Robotic Arm for Biological Probe Tubes Handling

Lorant A Szolga (UTCN)*

P2.19 Low-Cost Peristaltic Pump for Laboratory Applications

Lorant A Szolga (UTCN)*

P2.20 New FPGA design solution using quantum computation concepts

Laurențiu Ionescu (University of Pitești)*

P2.21 On Flight Real Time Image Processing by Drone Equipped with Raspberry Pi4

Lorant A Szolga (UTCN)*

Room 6**P2.22 Ultrasound liver steatosis diagnosis using deep convolutional neural networks**

Georgiana Simion (UPT)*

P2.23 Computer Tomography Blurred Images Recovery

Teodora Petrova (Trakia University)*; Zhivo B Petrov (Aviation Faculty, AirForce Academy, Dolna Mitropolia)

P2.24 Study on Counter-flow Air to Air Heat Exchange for Air Handling Unit of Smart Buildings

Viorel Nicolau ("Dunarea de Jos" University of Galati)*; Mihaela Andrei ("Dunarea de Jos" University of Galati); George Petrea ("Dunarea de Jos" University of Galati)

Room 7**P2.25 Calibration of Time-of-Flight Ultrasonic Flow Meters**

Fabian-Manuel Butean (UPT); Septimiu Lica (Politehnica University Timisoara); Ioan Lie (Politehnica University Timisoara)*

P2.26 EMC Simulation of a Power Filter in the Automotive Area

Andrei Marius Silaghi (Politehnica University Timisoara)*; Ciprian Bleoju (Continental Automotive Timisoara); Aldo De Sabata ("Politehnica" University Timisoara)

P2.27 Solving Automotive Signal Integrity Issues by means of EMC Simulation

Andrei Marius Silaghi (Politehnica University Timisoara)*; Catalin Pescari (University Politehnica Timisoara); Ciprian Bleoju (Continental Automotive Timisoara); Aldo De Sabata ("Politehnica" University Timisoara)

P2.28 Real-time line matching based speed bump detection algorithm

Sirbu Laura Cristina (Continental Automotive Romania)*; Cristian Tomoiu (Continental Automotive Romania); Szilvia Boldizsar (Continental Automotive Timisoara); Orhei Ciprian (Continental-Corporation.com)

Room 8**P2.29 Software Tool for Parameter Estimation and Control of High Speed PMSM Motors**

Marius-Alexandru Taut (Technical University of Cluj-Napoca)*

Friday, October 29

10:10 - 10:50 **Industrial Session 2**
 EEST | GMT +3h

Session Chair: Rajmond JANO, Technical University of Cluj-Napoca, Romania
Session Co-Chair: Radu BOZOMITU, Gh. Asachi Technical University of Iași, Romania

Alfa Test **Robert Bosch SRL** **Net Digital Service SRL**

Friday, October 29

10:50 - 12.20 **Plenary Oral Session 4**
 EEST | GMT +3h

Session Chair: Ciprian IONESCU, University Politehnica of Bucharest, Romania
Session Co-Chair: Boris I EVSTATIEV, University of Ruse Angel Kanchev, Bulgaria

10:50 KN4.1 – About technology trends and automotive electronics
 Pekka Sipilä, Continental Automotive GmbH

11:30 O4.1 Education 4.0 Lab for Digital Innovation Units – Collaborative Learning in Time of COVID-19 Pandemic

Monica Ionita Ciolacu (Deggendorf Institute of Technology & UPB-CETTI); Paul Svasta (UPB-CETTI); Alina-Elena E Marcu (University Politehnica of Bucharest); Marian Vladescu (University Politehnica of Bucharest); Dan Alexandru Stoichescu (ETTI - UPB)

11:55 O4.2 Sensor based IoT monitoring of Electronics Manufacturing in University Lab Environment

Attila Géczy (BME-ETT); Lajos Kuglics (BME-ETT); István Megyeri (BME-ETT); Róbert Gelbmann (BME-ETT); Gábor Harsányi (BME-ETT, Budapest, Hungary)

Friday, October 29

12:20 - 13:00 **Industrial Workshop**
 EEST | GMT +3h

Session Chair: Ionuț MUNTEAN, Robert Bosch SRL, Romania

12:20 Flying Probe component programming by Flash Runner NXG integration

Raul IONEL, Associate Professor Measurements and Optical Electronics Dept., University Politehnica Timișoara, Romania

Caius TĂNASIE, Technical Manager of Test Dept. Alfa Test S.R.L.Timișoara, Romania

Friday, October 29

14:00 - 14:30 **Special Oral Session**
 EEST | GMT +3h

Session Chair: Monica CIOLACU, University of Passau, Germany

14:00 Counterproductive behaviours at work and how to avoid them

Psih.dr. Daniel Ciucur, Trainer Process Communication Model®, CIUCUR & CIUCUR SCPP, Timisoara, Romania

14:30 Q&A

Friday, October 29

14:40 - 16:10 Poster Session 3 (Start with a pitching session*)

EEST | GMT +3h **Each author must deliver a maximum 1 minute video presentation of her/his work. The e-Poster evaluation will take place in the assigned Room.*

Session Chair: Detlef BONFERT, Fraunhofer EMFT, Munich Germany

Session Co-Chair: Liviu VIMAN, Technical University of Cluj-Napoca, Romania

Technical assistant Cristina LEPĂDATU, Association for Promoting Electronic Technology Bucharest

Room 1

P3.1 Flying Probe component programming by Flash Runner NXG integration

Raul C Ionel (Univ. Politehnica Timisoara)*; Caius Tanasie (Alfa Test SRL)

P3.2 Investigation on Meandered Split Ring Resonator for Metamaterial Microwave Absorber Design

Iulia Mocanu (UPB)*

P3.3 Vibration Testing of a Solderless Electronic Module Manufactured by Additive Technique

Gaudentiu Varzaru (Syswin Solutions)*; Razvan Ungurelu (SYSWIN Solutions); Mihai Branzei (University POLITEHNICA of Bucharest); Bogdan Mihailescu (UPB-CETTI); Ciprian Ionescu (UPB-CETTI); Paul Svasta (UPB-CETTI)

P3.4 Digital Solutions for Smart Food Supply Chain

George Suciu (BEIA Consult & UPB)*; Iulia Pop (BEIA); Robert I Vatasoiu (BEIA Consult International); Serban Calescu (BEIA); Adrian Pasat (BEIA Consult)

Room 2

P3.5 Rechargeable portable battery differentiation based on electrical characterization

Albert Fazakas (Technical University of Cluj-Napoca)*; Marius Purcar (Technical University of Cluj-Napoca)

P3.6 Advantages of Using Battery Cell Balancing Technology in Energy Storage Media at Electric Vehicles

Radu P Fotescu (ETTI,UPB)*; Loredana M Burciu (ETTI,UPB); Rodica Constantinescu (ETTI, UPB); Paul Svasta (UPB-CETTI)

P3.7 Experimental Estimation of the State of Health of Lithium-ion Batteries under Different Conditions

Adelina Ilies (Technical University of Cluj-Napoca)*

P3.8 4-Cell Passive Battery Management System for Automotive Applications

Ionut Guran (University Politehnica of Bucharest)*; Lucian Perișoară (University Politehnica of Bucharest); Adriana Florescu (University Politehnica of Bucharest); Dragos Ioan Sacaleanu (University Politehnica of Bucharest)

Room 3

P3.9 A custom Software for the Evaluation of Single-Cell Force-Spectroscopy Data Acquired by FluidFM BOT

Agoston G Nagy (Budapest University of Technology and Economics)*

P3.10 The investigation by numerical simulation of thermal induced deformation in a double soldered chip structure

Adrian Bojita (Technical University of Cluj-Napoca)*; Luiza Dobre (UTCN); Marius Purcar (Technical University of Cluj-Napoca); Albert Fazakas (Technical University of Cluj-Napoca)

P3.11 A simple High Voltage MOSFET simulation behavioural model for SABER Simulator

Octavian Luca (Vitesco Technologies)*;

P3.12 Increasing Thermal Simulation Efficiency with 6SigmaET

Alexandra Fodor (Technical University of Cluj-Napoca)*; Adrian Taut (Technical University of Cluj-Napoca); Gabriel Chindris (UT Cluj-Napoca)

Room 4

P3.13 Two New Boost Converters Exhibiting Zero-Ripple Input Current Both in CCM and DCM Operation

Cristian Ionici (Politehnica Univ. Timisoara); Dan Lascu (Politehnica University Timisoara)

P3.14 POL DC-DC Converter Output Capacitor Bank's Reliability Comparison using Prediction Standard MIL-HDBK-217F and SN 29500

Dan Butnicu (Technical University of Iasi)*

P3.15 ANALYSIS OF THE INPUT FILTER PARAMETERS FOR A POWER MATRIX CONVERTER

Adrian Popovici (Polytechnic University of Timisoara)*

P3.16 A Review of Failure Rate Calculation's Differences Due to Package for IEC-TR-62380 vs. other Prediction Standards

Dan Butnicu (Technical University of Iasi)*

Room 5***P3.17 In-circuit ESR Measurement Method for Electrolytic Capacitors***

Magdalena Marinca (Politehnica University of Timisoara)*; Elisei S Ilies (Politehnica University Timișoara)

P3.18 Electrical Parameters Prediction for Fab-to-Fab IC Product Migration

Alecsandra V Rusu(Buta) (Universitatea Tehnica Cluj-Napoca)*; Ingrid Kovacs (Technical University of Cluj-Napoca); Bianca Cărbunescu (Technical University of Cluj-Napoca); Topa Marina (Technical University of Cluj Napoca); Andi Buzo (Infineon Technologies AG Neubiberg); Georg Pelz (Infineon Technologies AG Neubiberg)

P3.19 Extending Insight About Solder Beading Effect Under Surface-mounted Electrolytic Capacitors

Daniel Straubinger (BME-ETT)*; Attila Tóth (Robert Bosch GmbH)

Room 6***P3.20 Climatic aging of conductive adhesive joints on pads with different surface finishes***

Pavel Mach (Czech Technical University in Prague)*; R Lacina (Czech Technical University in Prague)

P3.21 Mathematical Modeling of Resistance of Conductive Adhesive Joints in Climatic Aging

Pavel Mach (Czech Technical University in Prague)*; R Lacina (Czech Technical University in Prague)

P3.22 In-circuit Signal Measurement Method for Interleave Uniformly Spaced Sampling

Corneliu Barbulescu (Universitatea Politehnica Timisoara)*

P3.23 Study on Techniques for the Increase of the Current Carrying Capability of the PCB Tracks

Andrei DRUMEA (Politehnica University Bucharest)*; Cristina Marghescu (UPB-CETTI)

Room 7***P3.24 Education 4.0: Innovation Learning Lab for AI - Analysis and Concept Proposal***

Monica Ionita Ciolacu (Deggendorf Institute of Technology & UPB-CETTI)*; Bernhard Haderer (Technische Hochschule Deggendorf); Andreas Berl (Deggendorf Institute of Technology); Paul Svasta (UPB-CETTI)

P3.25 Student-centred Learning Environments in the Discipline “Radio Communication Technologies”

Ivanka Tsvetkova (University of Ruse)*; Adriana N. Borodzhieva (University of Ruse)

P3.26 Application of Software for the Purpose of Enhancing Online Education

Ivanka Tsvetkova (University of Ruse)*; Adriana N. Borodzhieva (University of Ruse)

Room 8***P3.27 Active and Interactive Methods Used in Teaching and Learning the Topic “Cryptosystems Based on Nonlinear Feedback Shift Registers”***

Adriana N. Borodzhieva (University of Ruse)*; Ivanka Tsvetkova (University of Ruse); Snezhinka Zaharieva (University of Ruse); Dimitar Dimitrov (Bulgarian Air Force Academy, Dolna Mitropolia); Valentin Mutkov (University of Ruse)

P3.28 Inquiry-Based Learning Used for Implementation of BCD Adders in the Course “Digital Electronics”

Adriana N. Borodzhieva (University of Ruse)*; Ivanka Tsvetkova (University of Ruse); Snezhinka Zaharieva (University of Ruse); Dimitar Dimitrov (Bulgarian Air Force Academy, Dolna Mitropolia); Valentin Mutkov (University of Ruse)

P3.29 Curriculum and Training Development in the METIS project

Bálint Medgyes (BME-ETT)*; Balázs Illés (BME-ETT); Oliver Krammer (BME-ETT); Slavka Tzanova (Technical University of Sofia, Department of Microelectronics); Stefania Gavra (SEMI Europe, Brussels Office)

P3.30 The Impact of COVID-19 on Higher Education: the Shift to E-learning - Student’s Perception and Outlooks

Cristina Marghescu (UPB-CETTI)*; Andrei DRUMEA (Politehnica University Bucharest); Mihaela Pantazica (UPB-CETTI)

Friday, October 29

16:20 - 17:50

Plenary Oral Session 5

EEST | GMT +3h

Session Chair: Detlef BONFERT, Fraunhofer EMFT, Munich Germany

Session Co-Chair: Cosmin MOISĂ, Continental Automotive, Timișoara, Romania

16:20 KN5.1 Thin film transistors, sensors and applications to human-computer interfaces

Radu Sporea, Advanced Technology Institute, Department of Electrical and Electronic Engineering, University of Surrey

17:00 O5.1 Evaluation of Finite Element Modelling Techniques of Printed Circuit Boards under Dynamic and Static Loading and Validation with Experimental Data

Eliza Tinca (Politehnica Timisoara); Julian I. Ailinei (Politehnica University); Andrei Marius Silaghi (Politehnica University Timisoara); Ciprian Bleoju (Politehnica University Timisoara); Arjana Davidescu (Politehnica University Timisoara); Liviu Marsavina (Politehnica University Timisoara)

17:25 O5.2 Thermal Model of a Submersible Water Pump

Boris I. Evstatiev (University of Ruse Angel Kanchev); Nadezhda Evstatieva (University of Ruse Angel Kanchev)
