




2nd SUMMIT OF IEEE EPS & NTC

STUDENT BRANCH CHAPTERS AGENDA

17 October 2023, "CASA UNIVERSITARILOR" building "Nicolae Romanescu" Room, 1 st floor	
08:30	Registration
09:00	Opening ceremony Speakers: <ul style="list-style-type: none"> ❖ Ovidiu A. POP (IEEE EPS & NTC Hu-Ro Joint Chapter SBC's Coordinator) ❖ Mark POLIKS (Director of IEEE EPS Student Programs) ❖ Cosmin IONETE (Director, Faculty of Automation, Computers and Electronics Department, University of Craiova) ❖ Nicolae NEAGU (General Manager, Hella Technical Center Craiova, Romania) ❖ Attila BONYÁR (IEEE EPS & NTC Hu-Ro Joint Chapter Chair, IEEE NTC Nanopackaging Technical Committee Chair)
09:30	Oral Session Chair: Attila BONYÁR Keynote Speaker: <ul style="list-style-type: none"> ❖ Cătălin CIOBANU (Lecturer, Transilvania University of Brasov) "Beyond Moore's Law: Leveraging Advanced Packaging Technology"
10:00	Coffee Break ☕
10:30	Keynote Speaker: <ul style="list-style-type: none"> ❖ Mark POLIKS (Director of IEEE EPS Student Programs, SUNY Distinguished Professor of Engineering, Director of Center for Advanced Microelectronics Manufacturing (CAMM)) "Maintaining an Active IEEE Electronics Packaging Society Student Branch Chapter"
11:00	Panel discussion - "Chiplets technology" Moderators: Paul SVASTA , UNST POLITEHNICA of Bucharest, Romania Bogdan MIHĂILESCU , UNST POLITEHNICA of Bucharest, Romania Panelists: <ul style="list-style-type: none"> ❖ Kemal AYGÜN (Distinguished INTEL Fellow, Intel Corporation) ❖ Anda JĂJĂIE (Vice-Chair, Nanotechnology Student Branch Chapter UNST POLITEHNICA of Bucharest, Romania) ❖ Alin FLOREA (Principal Engineer, CE Packaging, Marvell Technology) ❖ Dan MANOLESCU (Director, Package Design Engineering, Marvell Technology) ❖ Cosmin MOISA (Head of R&D Advanced Projects Software and Central Technologies Timisoara, Continental Automotive Romania)
12:45	Lunch
13:30	SBCs activity report, Common future cooperation Chair: Ovidiu A. POP
14:30	Transfer to Hella 
15:00	HELLA presentation <ul style="list-style-type: none"> ❖ Paul ZDRAVCU (Head of Testing Team, Hella Technical Center Craiova, Romania) 
15:30	HELLA visit
17:30	Closing ceremony Chairs: Ovidiu A. POP, Attila BONYÁR
18:00	Transfer back 
18:30	Networking Dinner

Programme in detail

Wednesday, October 18

16:00 – 16:30
EEST | GMT +3h

SIITME 2023 Opening ceremony
(University of Craiova - Aula MIHAI I)

Dorin Gheorghe ŞENDRESCU, University of Craiova, Romania

Ovidiu Aurel POP, Technical University of Cluj-Napoca, Romania

Wednesday, October 18

16:30 – 18:15
EEST | GMT +3h

Plenary Oral Session 1

Session Chair: Heinz WOHLRABE, Dresden University of Technology, Germany

Session Co-Chair: Attila BONYAR, Budapest University of Technology and Economics, Hungary

16:30 KN1.1 Electronics at the Edge: Flexible, Hybrid and Additive Approaches to Medical and Industrial Devices

Mark D. POLIKS, Thomas J. Watson College of Engineering and Applied Science, Binghamton University, State University of New York

17:15 Industrial Invited Speaker - Impact of package technology differences in power MOSFETs application

Nicolae Gross,

Continental Automotive Systems Sibiu, Romania

17:50 OS 1.1-43 Thermoelectrical Parameters of SiC PiN Diodes with New Die Attachment Ag Paste

Corina Ruxandra Mitulescu¹; Bogdan Mihailescu¹; Ryszard Kisiel²; Moise Vasile Madalin¹; Florin Draghici¹; Paul Svasta¹,

¹ National University of Science and Technology POLITEHNICA of Bucharest, Romania

² Warsaw University of Technology, Poland

Wednesday, October 18

18:30 – 19:30 Industrial Session 1

EEST | GMT +3h

Session Chair: Rodica CONSTANTINESCU, UNST POLITEHNICA of Bucharest, Romania

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

Continental Automotive Systems Sibiu

MIELE TEHNICA

Caelynx Europe

APTE, IMAPS Romania

Thursday, October 19

09:00 - 11:00 Plenary Oral Session 2

EEST | GMT +3h

Session Chair: Dorin PETREUȘ, Technical University of Cluj-Napoca, Romania

Session Co-Chair: Detlef BONFERT, Fraunhofer Institute for Electronic Microsystems and Solid State Technologies EMFT, Munich

09:00 KN2.1 The Journey of Optimization for Complex Magnetics

Jonathan CHURCH, Frenetic

09:45 OS2.1-14 Investigation of the Accuracy of Thermographic Inspections of Photovoltaic Modules

Boris I Evstatiev; Nikolay Valov; Katerina Gabrovska-Evstatieva and Nicolay Mihailov, University of Ruse Angel Kanchev

10:10 OS2.2-46 Mechanical Response of Type 2 Multi-Layer Ceramic Capacitors Under Different Electric Loads

Coanda Philip Gh; Vasile Madalin Moise; Comeaga Daniel; Svasta Paul, National University of Science and Technology POLITEHNICA of Bucharest, Romania

10:35 OS2.3- 47 Evaluation of Usage of Solid State MOSFET Switches in Test Equipment for PS15 Automotive Sensors

Nicolae Gross,

National University of Science and Technology POLITEHNICA of Bucharest, Romania

Thursday, October 19

11:20 – 12:20 **Industrial Session 2**
 EEST | GMT +3h

Session Chair: Ioan LIȚĂ, UNST POLITEHNICA of Bucharest, University Center of Pitești, Romania

Session Co-Chair: Mihai DĂRĂBAN, Technical University of Cluj-Napoca, Romania

BOSCH

SEGULA TECHNOLOGIES ROMANIA

SiMART 3D

ICCO EMT

Thursday, October 19

13:10 – 15:10 Poster Session 1 (Start with a pitching session*)
 EEST | GMT +3h.

Session Chair: Radu Gabriel BOZOMITU, Ghe Asachi Technical University of Iași, Romania

Session Co-Chair: Mihaela PANTAZICĂ, National University of Science and Technology POLITEHNICA of Bucharest, Romania

P1.1-51 Virtual Prototyping and Validation of a System for Flood and Fire Risk Mitigation in Wetlands

E. C. Popovici, A. Vulpe, L. Boicescu, C. A. Conțu, and G. Suciuc Jr.1)

Telecom Department, UNST POLITEHNICA of Bucharest, ETTI Faculty, Bucharest, Romania 1) R&D Department, BEIA Consult International, Bucharest, Romania

P1.2-71 Capacitor Discharging Module for Electric Discharge Machining

A. Drumea and C. I. Marghescu

Department of Electronics Technology, UNST POLITEHNICA of Bucharest, Romania

P1.3-70 Implementing power resistors on Aluminium Core Printed Circuit Boards

A. Drumea and C. I. Marghescu

Department of Electronics Technology, UNST POLITEHNICA of Bucharest, Romania

P1.4-90 Speed Control Model of DC Motor Based on a Parameter Investigation Prototype

I. Ciocan, C. Fărcaș, M. Szekely and A. Tulbure1)

Department of Applied Electronics, Technical University of Cluj-Napoca, Romania

1) Department of Precise and Engineering Sciences, 1 Decembrie 1918 University of Alba Iulia, Romania

P1.5-64 VR environment to build simulators for records in control plan

N. Ionescu1), L.-M. Ionescu2), and A.-G. Mazare2)

Department of Manufacturing and Industrial Management, UNST POLITEHNICA of Bucharest, University Center of Pitești, Romania

2) Department of Electronics, Computer and Electrical Engineering, UNST POLITEHNICA of Bucharest, University Center of Pitești, Romania

P1.6-9 Improved Flying Probe-Inspired In-Circuit Tester for Practical Laboratory Activities

R. Rotar, S.L. Jurj¹⁾, N.C. Rohatinovici²⁾, R. Brîncovan³⁾, F. Oprîțoiu⁴⁾ and M. Vlăduțiu⁵⁾

1) Department of Computer Science, Politehnica University, Timisoara, Romania

2) Technological Highschool of Electronics and Automation “Caius Iacob”, Arad, Romania

3), 4), 5) Department of Computer Science, Politehnica University, Timisoara, Romania

P1.7-11 Exploring the Transformative Potential of Blockchain Technology in the Financial Sector: Addressing Challenges and Opportunities

A. Petcu, I.R. Petcu¹⁾

Polytechnic University of Bucharest, Bucharest, Romania

1) Bucharest University of Economic Studies, Bucharest, Romania

P1.8-34 Implementing Boolean Four-Input Functions with Multiplexers when Applying Project-Based Learning in the Digital Electronics Course

A. N. Borodzhieva

Department of Telecommunications, University of Ruse “Angel Kanchev”, Ruse, Bulgaria

P1.9-35 A Methodology for Designing Phase-Correction Sections Using an Active Implementation with an Operational Amplifier

A. N. Borodzhieva

Department of Telecommunications, University of Ruse “Angel Kanchev”, Ruse, Bulgaria

P1.10-49 TIE-M Plus: Promoting Thermal Management Analysis Learning with Competition

C. Popescu⁵⁾, P. Coandă³⁾⁶⁾, A. Botau²⁾⁶⁾, I. – E.Ținca¹⁾⁵⁾, T. Krausz²⁾⁶⁾, I. – I. Ailinei²⁾⁶⁾, I. – D. Verzeș⁵⁾, and P. M. Svasta⁴⁾

1)Dept. of Mechatronics, University Politehnica Timișoara

2) Dept. of Mechanics and Strength of Materials, University Politehnica Timișoara

3) Dept. of Mechatronics and Precision Mechanics, UNST POLITEHNICA of Bucharest, Romania

4)Center for Electronics Technology and Interconnection Techniques, UNST POLITEHNICA of Bucharest, Romania

5) Continental Autonomous Mobility Romania, Timișoara

6) Continental Automotive Romania, Timișoara

P1.11-56 Investigating Optimal Feedback Functions of Degree 2 for Nonlinear Feedback Shift Registers Using Computer-Based Tools

A. N. Borodzhieva

Department of Telecommunications, University of Ruse “Angel Kanchev”, Ruse, Bulgaria

P1.12-61 Status Report of Training Development in the METIS Project Focusing on Test and Validation

B. Medgyes¹⁾, B. Illés¹⁾, O. Krammer¹⁾ and M. Afsar ²⁾

1) Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics, Department of Electronics Technology, Budapest/Hungary

2) SEMI Europe, Brussels/Belgium

P1.13-62 Database for E-Learning Platform of Digital Clothing

I. R. Radulescu, M. Jomir, E. Visileanu¹), S. Odhiambo²), T.H. Do, X. Tao and X. Zeng³)

1) INCDTP – Bucharest, Romania

2) FTILAB, HOGENT, Ghent, Belgium

3) ENSAIT, Roubaix, France

P1.14-66 Design of a Laboratory Platform for Buck-Boost Converter Characterization

I.-A. Uță, C. Marghescu, A. Drumea, R.Negroiu

Faculty of Electronics, Telecommunication and Information Technology, UNST POLITEHNICA of Bucharest, Romania

P1.15-76 Guidelines for Reducing Conductive Coupling Noise in Electronic Systems

R. C. Cavache and M. Pantazică¹)

SP1, Infineon Romania, Bucharest, Romania

1) Department of Electronic Technology and Reliability, Faculty of Electronics,

Telecommunications and Information Technology, UNST POLITEHNICA of Bucharest, Romania

P1.16-86 New Custom Boards for Teaching Digital Design

A. Gontean, E. Ilies, and M. Marinca

Applied Electronics, Politehnica University Timisoara, Romania

P1.17-23 High Efficiency Perovskite Solar Cells Optimization

I. Vlad, A. Drăgulescu¹)

Energy Generation and Use Department, UNST POLITEHNICA of Bucharest, Romania

1) Electronic Technology and Reliability Department, UNST POLITEHNICA of Bucharest, Romania

P1.18-59 Implementation of a Temperature Sensor Made With "Linqstat" for Automotive Applications

C. O. Opreș, A. Drăgulescu, I. B. Bacîș

Electronic Technology and Reliability Department, UNST POLITEHNICA of Bucharest, Romania

P1.19-27 Control of the Energy Conversion in Radial Microactuators Using Conductive Polymers

D. Ionescu¹), and G. Apreotesei²)

"Gh. Asachi" Technical University of Iasi, Romania

1) Department of Telecommunications and Information Technologies

2) Department of Physics

P1.20-72 Comparison between the Electrical Parameters of High Voltage Supercapacitor Cells

R. Negroiu, I. M. Burcea, P. Svasta, C.-I. Marghescu, M. R. Buga¹), A. Spinu Zaulet¹), C. Ungureanu¹)

1) Centre of Technological Electronics and Interconnection Techniques, UNST POLITEHNICA of Bucharest, Romania

2) The National Research and Development Institute for Cryogenic and Isotopic Technologies – ICSI, Râmnicu Vâlcea

P1.21-65 Comparative analysis of two types of filaments with COMSOL for electrothermal process

S. Cadar¹), D. Petreuş²), T. Patarau²), E. Szilagyi²)

1) Department of Analytical Instrumentation Research, INCDO-INOE2000, Research Institute for Analytical Instrumentation, Cluj-Napoca, Romania

2) Department of Applied Electronics, Technical University of Cluj-Napoca, Romania

P1.22-26 Stochastic Dynamic Programming Based Optimal Energy Management for an Islanded Microgrid

E. Szilagyi, D. Petreus, T. Patarau and N.A. Sarbu

Department of Applied Electronics, Technical University of Cluj-Napoca, Romania

P1.23-12 Energy efficient monitoring solution for lighting systems of hazardous areas

D. L. Buretea, V. Iordache, M. Minea, and R. A. Gheorghiu

Telematics and Electronics for Transport Department, UNST POLITEHNICA of Bucharest, Romania

P1.24-13 Bi-positional remote object reliable control using resistor analogue coding on microcontroller input

M. Minea, D. L. Buretea, V. Iordache, A. C. Cormos, and R. A. Gheorghiu

Telematics and Electronics for Transport Department, UNST POLITEHNICA of Bucharest, Romania

P1.25-14 Increasing data transmission reliability using pseudo-spread-spectrum short range radio networks

V. Iordache, R. A. Gheorghiu, M. Minea, D. L. Buretea and L. G. Obreja

Telematics and Electronics for Transport Department, UNST POLITEHNICA of Bucharest, Romania

P1.26-16 Textile and Plastic Materials Study for Radiofrequency Structure Fabrication

M. Călin, B. Mihăilescu, P. Svasta

Center for Technological Electronics and Interconnection Techniques, UNST POLITEHNICA of Bucharest, Romania

Thursday, October 19

15:30 – 17:30 Plenary Oral Session 3
EEST | GMT +3h

Session Chair: Vlad CEHAN, Gheorghe Asachi Technical University, Iaşi, Romania

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

15.30 KN3.1 High Speed Signalling Challenges and Solutions for Electronic Packaging

Kemal AYGÜN, Intel Corporation

16.15 OS3.1- 52 Chiplelets and Next-gen Packaging Technologies in University Education

Jajaie Anda¹); Puscasu Alexandru; Ailenei Ioana; Ciobanu Catalin; Svasta Paul¹,

¹) National University of Science and Technology POLITEHNICA of Bucharest, Romania

²) Transilvania University of Brasov, Romania

16.40 OS3.2-30 Electrochemical Corrosion Assessment of Low-Ag SAC Lead-Free Solder Alloys

Ali Gharaibeh; Bálint Medgyes,

Budapest University of Technology and Economics, Faculty of Electrical Engineering and Informatics, Hungary

17.05 OS3.3-32 Improving the Properties of Conducting Polymers in Self-Doping Variant

Daniela Ionescu¹⁾; Gabriela Apreotesei²⁾

¹⁾ Department of Telecommunications and Informational Technologies, "Gh. Asachi" Technical University of Iasi, Romania

²⁾ Department of Physics, "Gh. Asachi" Technical University of Iasi, Romania

Friday, October 20

09:00 – 11:00

Poster Session 2 (Start with a pitching session*)

EEST | GMT +3h

Session Chair: Boris EVSTATIEV, University of Ruse Angel Kanchev, Bulgaria

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

P2.1-91 Advanced Investigations of On-board Interconnection Structures using 2D/3D Electromagnetic Field Analysis Methods

Ș. Petrescu¹⁾, N. Codreanu²⁾, R. Vlăduță¹⁾, and D. Manolescu¹⁾

1) Marvell Technologies Romania, Bucharest, Romania, 2) Department of Electronics Technology and Reliability, Center for Technological Electronics and Interconnection Techniques, Faculty of Electronics, Telecommunications and Information Technology, UNST POLITEHNICA of Bucharest, Romania

P2.2-36 Development of Cost Effective and Environmentally Friendly Supercapacitors

I. M. Burcea, R. Negroiu and P. Svasta

Centre of Technological Electronics and Interconnection Techniques, UNST POLITEHNICA of Bucharest, Romania

P2.3-50 Electronic Hive Management System for a Beekeeping Vehicle

G. Florea and N. Codreanu

Department of Electronics Technology and Reliability, Center for Technological Electronics and Interconnection Techniques, Faculty of Electronics, Telecommunications and Information Technology; UNST POLITEHNICA of Bucharest, Romania

P2.4-58 Thermocouple Fabrics for Energy Harvesting in Smart Textiles – Applications and Prototype

I. R. Radulescu, L. Dinca, E. Perdum¹⁾, C. Stroe, T. Sarbu and R. A. Aileni²⁾

1) Department of Materials Research and Investigation, INCDTP – Bucharest, Romania

2) Department of Textile Engineering Materials and Processes, INCDTP - Bucharest, Romania

P2.5-1 From idea to prototype: Designing a CO2 detection sensor for industrial consumers using the Kano model and QFD's House of Quality

S.A. Potra1) 2)*, C. Olenici2), A.P. Pugna1) 2), G. Belgiu1) 2) and L. M. Mihali1)

1)Management Department, Faculty of Management in Production and Transportation, Politehnica University Timisoara, Timisoara, Romania

2) Research Centre in Engineering and Management, Politehnica University Timisoara, Romania

P2.6-10 Reliability enhancements for high-availability systems using distributed event streaming platforms

A.-M. Dincă1), S.-D. Axinte1), and I. C. Bacivarov1)

1)Faculty of Electronics, Telecommunications and Information Technology, UNST POLITEHNICA of Bucharest, Romania

P2.7-45 Fault Detection and Diagnosis of Rotor Broken Bars Using Artificial Intelligence

P. V. Vezeteu and D. I. Năstac

Faculty of Electronics, Telecommunications and Information Technology, UNST POLITEHNICA of Bucharest, Romania

P2.8-15 A survey of the effectiveness of UHF-RFID technology in traffic management systems

I.N. Stăncel1) and C.M. Surugiu2)

1),2) Department of Telematics and Electronics for Transports, UNST POLITEHNICA of Bucharest, Romania

P2.9-6 The Reuse of Food Loss and Waste in the Viticulture Sector

R.Streche, O. Orza, C.S. Bosoc, C. Balaceanu and G. Suci

R&D Department, BEIA Consult International, Bucharest, Romania

P2.10-25 Modelling, Simulation and Performance Analysis of K-Thermocouples using PSPICE

A. Grama, A. Fodor, C. Davidas, E. Stetco and O. Pop

Applied Electronics Department, Technical University of Cluj-Napoca, Romania

P2.11-29 The Advantages of using IoT technology in Monitoring and Dams Management

A. F. Flutur, S. S. Pop, V. Bande1)

1)Applied Electronics Department, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

P2.12-39 System for Electronic Control Unit Sniffing

S. V. Okishelov1), B. I. Evstatiev1), and S. Y. Kadirova1)

1) Department of Electronics, University of Ruse Angel Kanchev, Ruse 7017, Bulgaria

P2.13-47 Evaluation of Usage of Solid State MOSFET Switches in Test Equipment for SENT Automotive minSensors

N. I. Gross, P. Svasta

Electronics, Telecommunications & Information Technology, UNST POLITEHNICA of Bucharest, Romania

P2.14-51 Real-time Data Analysis Using Industrial Sensors

I. Szabo¹⁾ and A. Tulbure²⁾

1) UNST POLITEHNICA of Bucharest, University Center of Pitești, Romania

2) Department of Informatics, Mathematics & Electronics, “1 Decembrie 1918” University of Alba Iulia, Romania

P2.15-68 Data Switch in Long Line 1-Wire Networks for Monitoring System of Large Sensor Arrays

B. Olteanu, V. Nicolau, and M. Andrei

Department of Electronics and Telecommunications, “Dunarea de Jos” University of Galati, Galati, Romania

P2.16-79 PCB design for reduced thermal drift for current measurements through shunt resistors

T. Ursutiu, G. Chindris, R. Fizesan, M. Taut and A. Taut

Applied Electronics Department, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

P2.17-87 Vibration measurement system based on a MEMS microphone array

M. Marinca, E. Ilies, A. Gontean, S. Bularka and C. Barbulescu

Applied Electronics Department, Politehnica University, Timisoara, Romania

P2.18-88 Algorithms for Processing Signals of Driver Fatigue Detection Sensors in Traffic

D. Ioana, I. B. Bacis, A. Vasile

National University of Science and Technology POLITEHNICA of Bucharest, Romania

P2.19-2 From Classic Grids to Smart Grids - Evaluating the Energy Consumption of the Public Lighting System in Cluj-Napoca

H. Pop^{1),3)}, A. Fodor²⁾, A. Grama²⁾

1) Cluj-Napoca City-Hall, Cluj-Napoca, Romania

2) Applied Electronics Department, Technical University of Cluj-Napoca, Romania

3) Basis of Electronics Department, Technical University of Cluj-Napoca, Romania

P2.20-4 Intelligent green electricity management system

C. Huțanu, Gh. Marc¹⁾

Department of Informatics, Mathematics and Engineering, Faculty of Informatics and Engineering, “1 Decembrie 1918” University, Alba Iulia, Romania

1) Energy Services providing Company, Polytechnic University of Timisoara, Romania

P2.21-8 Digital Twin Architecture for an Automated PV System with Self-Testing Capabilities

R. Rotar, N. Vârtaci¹⁾, M. Bălaș²⁾, F. Oprețoiu³⁾ and M. Vlăduțiu⁴⁾

Department of Computer Science, Politehnica University, Timisoara, Romania

1), 2) Department of Automation and Applied Informatics, Aurel Vlaicu University, Arad, Romania

3), 4) Department of Computer Science, Politehnica University, Timisoara, Romania

P2.22-28 The Influence of Temperature on The Efficiency of a Mini Photovoltaic Panel

I. H. Baciú and A. Fodor

Applied Electronics Department, Technical University of Cluj Napoca, Cluj Napoca, Romania

P2.23-31 Comparative Studies of Temperature Influence on Characteristics of Dye Sensitized and Silicon Based Solar Cells

M.-C. Mareş, C. Ionescu, and P. Svasta

Centre for Technological Electronics and Interconnection Techniques, UNST POLITEHNICA of Bucharest, Romania

P2.24-84 Thermal Energy Harvesting from Small Sources Using TEGs

M. V. Popescu, A. I. Molcut, S. Lica and I. Lie

Applied Electronics Department, Politehnica University Timisoara, Romania

Friday, October 20**11:30 – 13:30 Plenary Oral Session 4**

EEST | GMT +3h

Session Chair: Daniel COMEAGĂ, UNST POLITEHNICA of Bucharest**Session Co-Chair:** Cătălin CONSTANTINESCU, University of Craiova, Romania**11.30 KN3.1 Multiphysics Modeling of Semiconductor IC Packaging and Systems****Rajen MURUGAN**, Texas Instruments, Inc.**12.15 OS4.1 The Advanced Packaging Master Plan for Europe**

Bogdan Mihailescu,

National University of Science and Technology POLITEHNICA of Bucharest, Romania

12.40 OS4.2-41 Innovative HDL Lessons Targeting the terasIC DE10-Lite Intel FPGA Platform

Ioana Ailenei; Dan Nicula; Catalin Ciobanu

Universitatea Transilvania Brasov

13.05 OS4.3-44 TIE-M Plus: Promoting Structural Analysis Learning with CompetitionIulia E Tinca¹; Philip Gh Coanda²; Tamas Krausz³; Iulian I Ailinei³; Ionut Verzes⁴; Constantin Popescu⁴; Aurelian Botau¹; Paul Svasta²,¹ Continental Automotive, Romania² National University of Science and Technology POLITEHNICA of Bucharest, Romania³ Politehnica University of Timisoara, Romania⁴ Continental Autonomous Mobility, Romania

Friday, October 20

14:30– 16:30

Poster Session 3 (Start with a pitching session*)

EEST | GMT +3h

Session Chair: Ciprian IONESCU, National University of Science and Technology POLITEHNICA of Bucharest, Romania

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

P3.1-5 Handwritten letter recognition using mathematical morphology

D. Abrudan, A.M. Drăgulescu, and N Vizireanu

Telecommunications Department, UNST POLITEHNICA of Bucharest, Romania

P3.2-18 Latency Hiding of Log-Depth Scan and Reduce Networks in Heterogenous Embedded Systems

M. Antonescu1), M. Malița2), and G.M. Ștefan1)

1) DCAE, ETTI, UNST POLITEHNICA of Bucharest, Romania

2) Computer Science, Rivier University, Nashua, NH/USA

P3.3-20 Monitoring Hospital Activity Through Petri Nets

C. Corches1), M. Daraban2), and L. Miclea1)

1) Automation Department, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

2) Applied Electronics Department, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

P3.4-33 Microcontroller communication using Yagi antenna at 2.4 GHz

N. Nistor, B. Dumitrascu, L. Baicu

Department of Electronics and Telecommunications, University “Dunarea de Jos” of Galati, Romania

P3.5-37 Implementation of a high accuracy pupil detection algorithm using neural networks

G. Bonteanu, P. Bonteanu, A. Cracan and R. G. Bozomitu

Faculty of Electronics, Telecommunications and Information Technology, “Gheorghe Asachi” Technical University, Iași, Romania

P3.6-40 2.4 GHz bandwidth spectrum analyser with frequency change using microcontroller

B. Dumitrascu, L. Baicu, and N. Nistor

Department of Electronics and Telecommunications, University “Dunarea de Jos” of Galati, Galati, Romania

P3.7-55 A green mobile One Health laboratory for infectious disease epidemics

G. Suci, C. Stalidi, L. Marcu

R&D Department BEIA Consult International Bucharest, Romania

P3.8-60 The Impact of User Navigation Applications in Residential Areas

Y. K. Jawad¹), and M. Nitulescu²)

1) Doctoral School, Faculty of Automation, Computers and Electronics / University of Craiova, Craiova, Romania 2) Department of Mechatronics and Robotics, Faculty of Automation, Computers and Electronics / University of Craiova, Craiova, Romania

P3.9-63 Embedded system for charging alkaline batteries

L. Baicu, M. Andrei, B. Dumitrascu

Department of Electronics and Telecommunications, University "Dunarea de Jos" of Galati, Romania

P3.10-69 IoT System for Vine Disease Monitoring

M. Hnatiuc, A.-E. Constantin, R. C. Dumitru, D. Alpetri

Electronic and Telecommunication, Constanta Maritime University

P3.11-75 Rapid Maintenance based improved design for omnidirectional controlled wheels for VirtuSphere system

L.C. Bazavan, D.Coman¹), H. Roibu , S.I. Cismaru, A.Petrisor²) and N.G. Bîzdoacă
Mechatronics and Robotics Department, Faculty of Automation, Control and Electronics, University of Craiova, Craiova, Romania

1) Department of Engineering and Management of the Technological Systems, Faculty of Mechanics, University of Craiova, Craiova, Romania

2) Department of Electrical, Energy and Aerospace Engineering, Faculty of Electrical Engineering, University of Craiova, Craiova, Romania

P3.12-3 How to improve the scrap rate in data control modules using the DMAIC model and statistical analysis

C. O. Olenici¹), A.P. Pugna¹) and S.A. Potra¹)

1) Management Department, Faculty of Management in Production and Transportation, Politehnica University Timisoara, Timisoara, Romania

P3.13-73 Preemptive Real Time Operating System for Low Power Microcontrollers

T. Cernat¹), M. Daraban¹), C. Corches²), G. Chindris¹)

1) Applied Electronics Department, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

2) Automation Department, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

P3.14-74 Embedded Scheduler with Task Reset Capabilities

R. Chechisan¹), M. Daraban¹), C. Corches²), G. Chindris¹)

1) Applied Electronics Department, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

2) Automation Department, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

P3.15-77 Implementation of holonomic kinematics in industrial vehicles

C. I. Oprita, L. Viman

XC-HWP/EDX-RO, SC Robert Bosch SRL, Cluj-Napoca, Romania

Applied Electronics, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

P3.16-78 Improving accuracy of ultrasonic distance measurement with microcontroller and adaptive process formula.

S.Epure, N.Nistor, B. Dumitrascu

Department of Electronics and Telecommunications, "Dunarea de Jos" University of Galati

P3.17-80 IoT - Home Management Device for Temperature and Humidity

R. S. Csatlos, A. Taut, G. Chindris, M. Taut

Applied Electronics Department, Technical University of Cluj-Napoca, Romania

P3.18-82 A Method to Control of a Semi-Autonomous Vehicle

A. Taut, G. Chindris, M. Daraban, M. Taut, R. Pop

Applied Electronics Department, Technical University of Cluj-Napoca, Romania

P3.19-83 Cloud based Real-Time Data Acquisition for Industrial Applications

E. M. Olariu¹), C. Vlasin²), O. Balaj¹) and H. C. Hedesiu¹)

1) Electrical Engineering, Technical University of Cluj Napoca, Cluj Napoca, Romania

2) National Instruments Romania, Cluj Napoca, Romania

P3.20-17 IR-Scanning vs. PSIM-Thermal Simulation concerning πT Stress Factor used in Synchronous Buck's Reliability Calculation

D. Butnicu¹), R. Tristu²)

1) Electronics Faculty Technical University of Iasi, Romania

2) Electronics Department Technical College R. Radulet, Brasov, Romania

P3.21-57 Energy Consumption Analysis of a Network of Sensors and Energy Consumption Optimization Methods

L.-M. Fotescu (Burciu), R.-P. Fotescu, R.-C.Constantinescu, P. Svasta and B. Alexandrescu

ETTI, UNST POLITEHNICA of Bucharest, Romania

P3.22-19 Performance of lithium ion cells used in electric vehicles depending on their internal resistance

R.-P. Fotescu (Burciu), L.-M. Fotescu, R.-C.Constantinescu, P. Svasta and B. Alexandrescu

ETTI, UNST POLITEHNICA of Bucharest, Romania

P3.23-42 Condition Monitoring in Inverters for Enhanced Reliability

C. R. Mitulescu¹), B. Mihăilescu¹), M. Moise¹), P. Svasta¹)

1) CETTI, UNST POLITEHNICA of Bucharest, Romania

P3.24-81 Adaptive Battery Management System with Active Cell Balancing

I. Apetroaie, A. Taut, G. Chindris, M. Taut

Applied Electronics Department, Technical University of Cluj-Napoca

P3.25-85 A New Triple-Stacked Step-Up Converter for High Voltage Gain

S. Lica, M. V. Popescu, I. Lie and D. Lascu

Applied Electronics Department, Politehnica University Timișoara, Timișoara, Romania

P3.26-89 Design of a Temperature Controller for an OvenC. Farcas, I. Ciocan, and A. Tulbure¹⁾

Department of Applied Electronics, Technical University of Cluj-Napoca, Romania

¹⁾ Department of Precise and Engineering Sciences, "1 Decembrie 1918" University of Alba Iulia, Romania**Friday, October 20****16:30 – 17:30 Industrial Session 3****EEST | GMT +3h****Session Chair:** Bogdan MIHĂILESCU, UNST POLITEHNICA of Bucharest, Romania**Session Co-Chair:** Rajmond JANO, Technical University of Cluj-Napoca, Romania**Eberspaecher****HELLA****HARMAN****INAS**