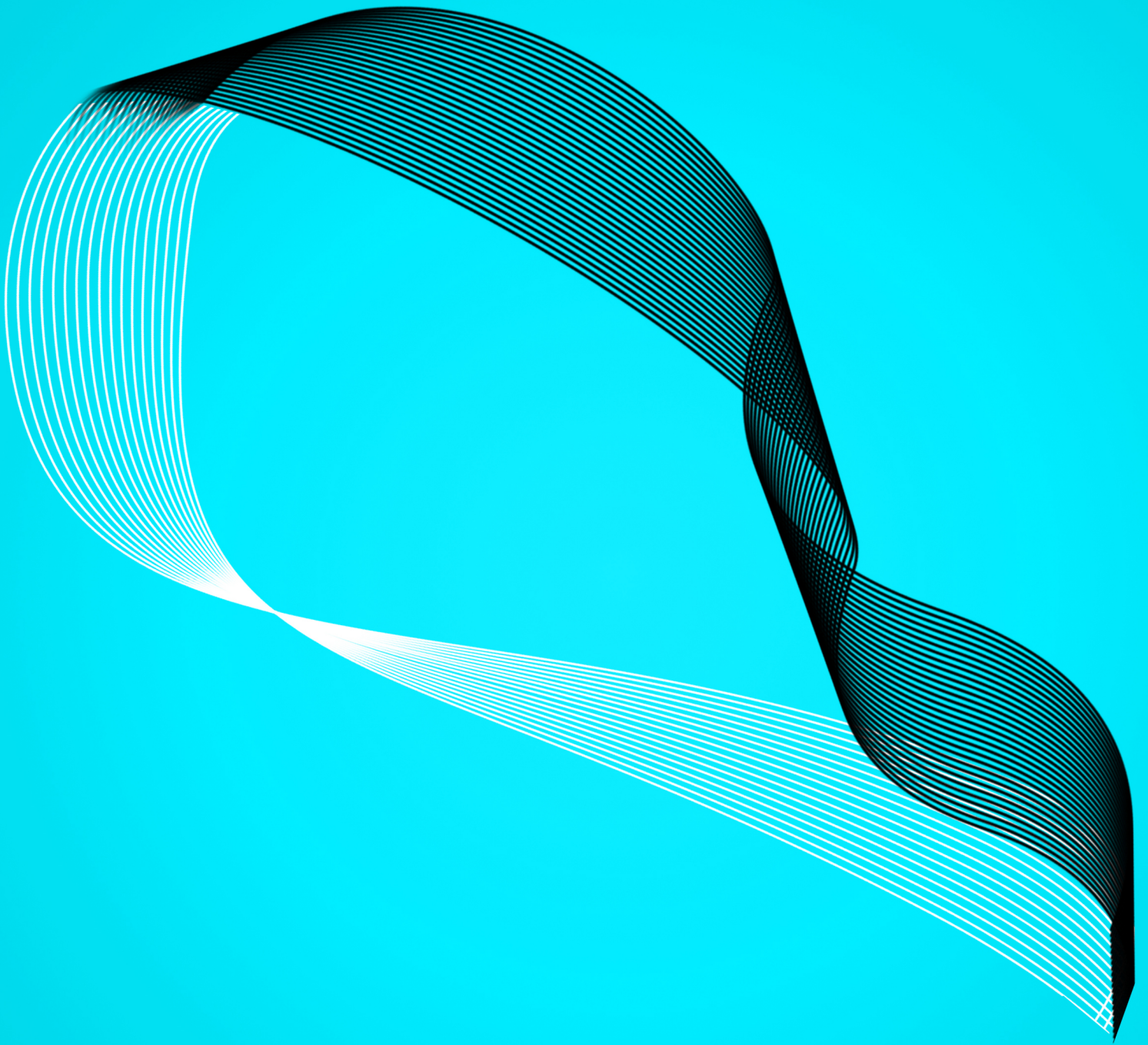19th IEEE International Symposium for Design and Technology in Electronic Packaging
24th – 27th October 2013 | Galaţi, România

Conference Program

SIITME2013

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SIITME2013 - CONFERENCE PROGRAM

Welcome to the 19th edition of the International Symposium for Design and Technology in Electronic Packaging

Thank you for your participation to this already traditional event. The 2013 IEEE 19th International Symposium for Design and Technology in Electronic Packaging (SIITME) takes place in Galati, the largest harbour town on the Danube River. SIITME has proven itself as an important Central and Eastern European event in the field of Electronic Packaging. From its start in 1995, it has provided a place for members from academia as well as from the industry to gather and exchange ideas. The conference combines oral and poster presentations as well as face to face meetings and it offers an opportunity for participants to have a fruitful exchange of ideas. This year, the first AFCEA (Armed Forces Communications and Electronics Association) Romanian Student Club Meeting will be organized as part of the conference. This represents an opportunity for young researchers (most of them still students) to meet specialists in their field and to present their research. This is yet another way to encourage young researchers to participate.

As General Chairs, we would like to address special thanks, for the sustained work, to the Publication and Scientific Committees. Their active involvement in reviewing the submitted papers led to the selection of high quality research works. Also, the effort made by the Steering Committee in promoting this event has increased its visibility and raised the scientific level. Moreover, a very important role was played by "Dunărea de Jos" University of Galaţi, which has supported this scientific event as local organizer. For its efforts, many thanks!

Prof. Dr.h.c. Paul SVASTA, Ph. D.   Prof. Dan Pitică, Ph. D.,

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Thursday, October 24

14:00 – 19:00	**Registration (Registration desk, Hotel Lobby)**
18:00 – 19:00	**AFCEA Romanian Student Club Meeting (Steering Committee Room) Chaired by:**
	Col. Eng. Liviu COSEREANU Ph.D., AFCEA Bucharest Chapter President and General Manager of Military Equipment and Technologies Research Agency
	Lt. Col. Eng. Tiberius TOMOIAGA Ph.D., AFCEA Bucharest Chapter Treasurer
19:00 – 21:00	**Welcome reception (Hotel restaurant)**
21:00 – 22:00	**Steering Committee Meeting (Steering Committee Room)**
22:00 – 23:00	**IEEE – CPMT Hu & Ro Joint Chapter Meeting (Steering Committee Room)**

Friday, October 25

07:00 – 08:15	**Breakfast** (Hotel restaurant)
08:15 – 12:00	**Registration** (Registration desk, Hotel Lobby)
08:15 – 08:30	**Opening ceremony, Welcome words** (Conference Room)
	Paul SVASTA, SIITME General Chair, "Politehnica" University Bucharest
	Dorel AIORDĂCHIOAIE, SIITME Conference Chair, "Dunărea de Jos" University of Galaţi
08:30 – 10:20	**Oral Session 1** (Conference Room)
10:20 – 10:50	**Coffee Break**
10:50 – 12:20	**Oral Session 2** (Conference Room)
12:20 – 14:00	**Lunch** (Hotel restaurant)
14:00 – 15:30	**Poster Session 1** (Conference and Poster Room)
15:30 – 16:00	**Coffee Break**
16:00 – 17:00	**The Impact of Digital Era on Engineering Education** (plenary discussion, Conference Room)
	Chaired by:
	Georgeta MARGHESCU, "Politehnica" University Bucharest
	Alexandru BORCEA, ARIES
17:00 – 18:00	**AFCEA Romania poster session** (Conference and Poster Room)
18:00 – 19:30	**Poster Session 2** (Conference and Poster Room)
19:30 – 20:30	**Jazz concert** (Hotel restaurant)
20:30 – 22:00	**Dinner** (Hotel restaurant)

Saturday, October 26

07:00 – 08:15	**Breakfast** (Hotel restaurant)
08:15 – 12:00	**Registration** (Registration desk, Hotel Lobby)
08:30 – 10:00	**Oral Session 3** (Conference Room)
10:00 – 10:30	**Coffee Break**
10:30 – 12:00	**Industrial Oral Session** (Conference Room) – Digilent, Printech, TME, Parcul industrial Galaţi
12:00 – 13:30	**Lunch** (Hotel restaurant)
13:30 – 15:15	**Poster Session 3** (Conference and Poster Room)
15:15 – 16:45	**Coffee Break on Danube**
16:45 – 17:45	**Poster Exercise Session** (Conference and Poster Room)
17:45 – 19:00	**Steering Committee Meeting** (Steering Committee Room)
19:00 – 23:00	**Conference Dinner and Awarding session** (Hotel restaurant)
	Cultural Program – Folklore Evening

Sunday, October 27

07:30 – 09:00	**Breakfast** (Hotel restaurant)
09:00 – 10:00	**Closing ceremony, looking forward to SIITME 2014** (Conference Room)
10:00 – 11:00	**Farewell coffee, End of Symposium**

Keynote speaker:

Dr. Nenad Marjanović, Ph.D.
CSEM SA, Muttenz, Switzerland

Presentation:
" Printed optoelectronics: components and systems at CSEM"

Dr. Marjanović received the MSc. Degree in Materials Science at the Faculty of Electrical Engineering, University of Belgrade, Serbia. After that, he joined the group of Prof. Niyazi Serdar Sariciftci at Johannes Kepler University Linz, Austria, where he received the PhD. Degree in Technical Sciences. The device physics and photo-induced effects in organic thin film transistors and diodes were in the focus of his scientific activity. At the end of 2005 he co-founded the company *plastic electronic* GmbH in Linz, Austria, where he held a CTO position. During that period he and his team developed the technology for the fabrication of organic electronic devices (e.g. OTFTs and diodes) in a roll-to-roll manufacturing fashion combining printing and vacuum evaporation. In 2009 he joined the group of Prof. Reinhard R. Baumann at Chemnitz University of Technology and Fraunhofer Institute for Electronic Nano Systems ENAS in Chemnitz, Germany, where he worked on developing the technology for low temperature curing of printed amorphous metal oxides on the substrates commonly used in Printed Circuit Board (PCB) industry. In 2011 he joined CSEM Muttenz, Switzerland, where he is currently taking a Project Manager position. He focuses on the development of hybrid printed electronics – coupling printed and silicon based electronic components on flexible PCB.

Dr Marjanović has published more than 20 peer-reviewed papers in high level scientific journals, which are cited more than 680 times. Last but not least, in 2010 he was awarded with the Serbian National Prize "Nikola Tesla" for Science and Technological Innovations by the Serbian Government.

Keynote speaker:

Prof. Dr.-Ing. habil. Dr.h.c. Klaus-Jürgen Wolter
Dresden University of Technology, Germany

Presentation:
" Advanced Technologies for Systems in Packages"

Professional Experience:
- Since 2006 Deputy Head of Fraunhofer IZFP Dresden
  Since 2003 Director of the Electronic Packaging Lab at Dresden University of
    Technology
- Since 2002 Director of the Centre of Microtechnical Manufacturing
- 1992 Appointment to the chair of Procedure Technology of Electronics

Fields of research:
- Substrate technologies
- Assembly technologies of devices, components, MEMS
- Joining technologies
- Reliability of electronic packages
- Non-destructive test methods

Publications:
  Co-author of four books in Electronics Packaging
  Editor of book series: „Elektronik-Technologie in Forschung und Praxis"
  Verlag Dr. Markus Detert, Templin, Band 1 - 16
  Editor of book series: „System Integration in Electronic Packaging"
  Verlag Dr. Markus Detert, Templin, Band 1 - 5
  The research activities result in more than 80 conference presentations/proceedings
      and in 3 patents.

Fellowships and Honours
- Member of: IEEE-CPMT (since 2005), IMAPS, VDE
- General Chair of "International Spring Seminar on Electronic Technology" since 2003
- Chair of the 5th and 8th International Academic Conference on Electronic Packaging
    Education and Training
  General Chair of 1st Electronics System- Integration Technology Conference 2006
  Governor of IEEE-CPMT board since 2006

Keynote speaker:

Prof. Zsolt ILLYEFALVI-VITÉZ, Ph.D.
Budapest University of Technology and Economics

Presentation:
"Applications of Graphene in Electronics Packaging Technology"

Zsolt Illyefalvi-Vitéz received his diploma of electrical engineering, dr.techn, and PhD/CSc degree from the Budapest University of Technology (CSc from the Hungarian Academy of Science). DHC, Doctor Honoris Causa, his highest scientific degree was awarded by the "Politechnica" University of Bucharest.

He has been active member and officer of IEEE-CPMT and IMAPS. Between 1996 and 2002, he was the chairman of the Steering Committee of ISSE, and he chaired the ISSE Seminars in 1996 and 2000.

He has developed more than 20 European R&D or network projects, within the framework of INCO-Copernicus, FP4-FP7 and Leonardo program, with the involvement of Slovenian and Romanian partners, as well. Among these, the most noticeable were the Cheap-Multichip-Modules, NETPACK, Lidcat, Flexil, EuroTraining, Leadout and FlexNoLead.

He has contributed as invited professor at US universities, in particular to the Packaging Research Center at the Georgia Tech; these led to his membership of the International Conference on Electronic Packaging Education and Training, where his activity played an important role in the extension of the Academic Conference to a global network.

Eng. Delia Chiricescu, Ph.D.

Executive Director, Microchip Technology Romania

Presentation:

"Microchip "Die-Sized" Packages - Lighter, Thinner, Smaller!"

Professional Experience:

Graduated in 1988, "Computer Science" faculty, "Politehnica" University of Bucharest;

National research Institute for Informatics, Bucharest (1990 - 2000) – as senior researcher – gained experience in networking and Internet software development;

Mobilrom (2000 - 2001) (former Orange) – as Business Support Analyst and Database Analyst Programmer;

Computaris (2001 - 2003) – as IT Consultant, Value Added Services Development Consultant and Quality Assurance Team Leader involved in telecom software development;

Motorola/Freescale Romania (January 2004 – July 2009) – coordinated the activity of Network Communication Protocols Team;

Microchip Technology Romania (July 2009 – present) – as Application Manager and Executive Director.

Education:

1988 – graduated the "Computer Science" faculty, "Politehnica" University of Bucharest

2006 – Ph.D. in Automation

2008 – EMBA at Asebuss

The Impact of Digital Era on Engineering Education

Chaired by:

Georgeta MARGHESCU, "Politehnica" University Bucharest

Alexandru BORCEA, President of the Employers Commission ARACIS (Romanian Agency for Quality Assurance in Higher Education)

A plenary discussion tackling problems that may arise from adapting engineering Education to the demands of the digital era:

- ❖ Adapting programs to the new paradigms (the stretching of geographical boundaries, a new type of classroom);

- ❖ Digital literacy;

- ❖ Teacher competencies;

- ❖ The Internet - a huge body of information, but not necessary of knowledge – learning to check and double check;

- ❖ Technology and new possibilities of use for adult learning.

Friday, October 26

08:30 – 10:20 **Oral Session I**

Session Chairs:

Zsolt ILLYEFALVI-VITÉZ, Budapest University of Technology and Economics, Hungary
Dan PITICA, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

K.1 Advanced Technologies for System in Packages

K.-J. Wolter
Electronics Packaging Laboratory, Dresden University of Technology, Germany

K.2 Printed optoelectronics: components and systems at CSEM

N. Marjanović
CSEM SA, CH-4132 Muttenz, Switzerland

O.1 Sensing Properties of Carbon Nanotube Based Thick Film Layers on Foils

D. Bonfert, D. Hemmetzberger, G. Klink, K. Bock, P. Svasta[2], and C. Ionescu[2]

Fraunhofer Research Institution for Modular Solid State Technologies, EMFT, Munich, Germany,
[2] Politehnica University of Bucharest, UPB, Romania, Center for Technological Electronics and Interconnection Techniques, CETTI

O.2 Polymer Matrix Composites Reinforced with Expanded and Unexpended Graphite Particles for Electronic Packaging Applications

Ismail Tavman, Nicolas Horny[2], Alpaslan Turgut, Mihai Chirtoc [2]

Mechanical Eng. Dept., Dokuz Eylul University, Tinaztepe- Buca Izmir/Turkey

2) Université de Reims Champagne Ardenne URCA, GRESPI, Multiscale Thermophysics Lab., Reims, France

Friday, October 26

10:50 – 12:20 **Oral Session II**

NOTE: Each author must deliver a 20 minutes slide show presentation of his/her work.

Session Chairs:
Klaus-Jürgen WOLTER, Dresden University of Technology, Dresden, Germany
Delia CHIRICESCU, Microchip Technology Romania

K3 Microchip "Die-Sized" Packages - Lighter, Thinner, Smaller!
Delia CHIRICESCU, Microchip Technology Romania

K4 Applications of Graphene in Electronics Packaging Technology
Zsolt Illyefalvi-Vitéz
Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary

O.3 Package on board simulation with 3D EM simulation
Alain Michel
ANSYS France, Montigny le Bretonneux, France

O.4 Modelling Galden Layer Formation on PCB Surface during Vapour Phase Soldering
B. Illés
Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary

Saturday, October 27

08:30 – 10:00 **Oral Session III**

NOTE: Each author must deliver a 20 minutes slide show presentation of his/her work.

Session Chairs:
Ismail TAVMAN, Mechanical Eng. Dept., Dokuz Eylul University, Izmir/Turkey
Balazs ILLES, Budapest University of Technology and Economics, Hungary

O.5 A Reliability Comparison Study between 14 Lead free Alloys
H. Wohlrabe, G.Reichelt[1]
Dresden University of Technology, Centre of Microtechnical Manufacturing, Dresden, Germany
[1] Ingenieurbüro für Elektroniktechnologie, Berlin, Germany

O.6 Aspects of Data Reception in a High Performance RFID Reader
D. T. Vuza, R. Frosch[1], H. Koeberl[1] and M. Vlădescu[2]
Institute of Mathematics of the Romanian Academy, Bucharest, Romania,
[1] Freaquent Frosch Electronics G.m.b.H., Graz, Austria
[2] UPB-CETTI, "Politehnica" University of Bucharest, Romania

O.7 A New Low Stresses High-Efficiency Step-down Converter
S. Lica, C. Băbăiţă, A. Cireşan and D. Lascu
Applied Electronics Department, „Politehnica" University Timişoara, Romania

10:30 – 12:00 **Industrial Oral Session**

NOTE: Each author must deliver a 20 minutes slide show presentation of his/her work.

IO.1 Printech Circuit Laboratories (see page 27)

IO.2 TME (see page 28)

IO.3 Digilent (see page 29)

IO.4 Parcul industrial Galaţi (see page 30)

Friday, October 25   *Dear presenter, stick- up your poster before session!*

14:00– 15:30 **Poster Session I** (Conference and Poster Room)

NOTE: Each author must deliver a 3 minutes slide show presentation of his/her work.

Session Chair: Nenad MARJANOVIĆ, CSEM SA, Muttenz, Switzerland
Session Co-Chair: Norocel CODREANU, "Politehnica" University of Bucharest, Romania

Evaluators:
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Norocel CODREANU, "Politehnica" University of Bucharest, Romania
Laurentiu FRANGU, "Dunărea de Jos" University of Galaţi , Romania
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Zsolt ILLYEFALVI-VITÉZ, Budapest University of Technology and Economics, Hungary
Ion MARGHESCU, "Politehnica" University of Bucharest, Bucharest, Romania
Dorin PETREUS, Technical University of Cluj-Napoca, Romania
Paul SVASTA, "Politehnica" University of Bucharest, CETTI, Bucharest, Romania

P1.1 Investigation of Thermally Generated Gold Nanoparticles with AFM
A.Bonyár, B. Wimmer, István Csarnovics[2]
Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary;
[2] Department of Experimental Physics, University of Debrecen, Debrecen, Hungary
P1.2 Soldering Tests with Biodegradable Printed Circuit Boards
A.Geczy, T. Garami, B. Kovacs., D. Nagy, L. Gál, and I. Hajdu
Department of Electronics Technology, Budapest University of Technology and Economics
P1.3 Optimal Microheater Patterns with PEDOT:PSS Conductors for Flexible Sensor Applications
Ciprian Ionescu, Detlef Bonfert[2], Norocel Codreanu and Paul Svasta
"Politehnica" University of Bucharest, Romania, Center for Technological Electronics and Interconnection Techniques, UPB-CETTI
[2] Fraunhofer Institution for Modular Solid State Technologies (EMFT)
P1.4 Investigating Hole Filling in Pin-in-Paste Technology for Vapour Phase Soldering
R. Batorfi, R. Storcz, M. Ruszinko

Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary

P1.5 Reducing lead-free soldering failures caused by printed circuit board shrinkage

A. Geczy, L. Tersztyanszky[2], B. Illes, A. Kemler[2], A. Szabo[2]

Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary

[2] MSE2-E, Robert Bosch Kft., Hatvan, Hungary

P1.6 New Method for Calculating the Necessary Amount of Solder Paste for Pin-in-paste Technology

O. Krammer

Department of Electronics Technology, Budapest University of Technology and Economics, Budapest, Hungary

P1.7 Influence of Filler Concentration on Frequency Dependence of Electrically Conductive Adhesive Joints Impedance

P. Mach, M. Plaček

Czech Technical University in Prague, Faculty of Electrical Engineering, Department of Electrotechnology, Prague, Czech Republic

P1.8 A VLSI implementation of the 4th order elliptic fully differential IIR switched-capacitor low-pass filter in CMOS technology

R. G. Bozomitu, N. Cojan and G. Bonteanu

Faculty of Electronics, Telecommunications and Information Technology, "Gheorghe Asachi" Technical University, Iaşi, Romania

P1.9 Long Range Image Radio Transmitter

I.A. Hapenciuc, P. M. Svasta

"Politehnica" University of Bucharest, Romania, Center for Technological Electronics and Interconnection Techniques, UPB-CETTI

P1.10 A New Forward Based Converter with Power Factor Correction

C. Fărcaş, N. Palaghiţă, I. Ciocan, A. Cozma and A. Tulbure[2]

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

[2] Department of Engineering Science, "1 Decembrie 1918" University of Alba Iulia, Romania

P1.11 Wireless Control System for Angular Positioning Applications

D. A. Vişan, I. Liţă, I. B. Cioc

Department of Electronics, Computers and Electrical Engineering, University of Pitesti, Pitesti, Romania

P1.12 Comparative Analysis of Two Digital Control Algorithms for a DC-DC Converter

C. Orian, D. Petreuş, R. Etz and T. Pătărău

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

P1.13 Study and Implementation of a Vaporizer Used in Plasma Equipment for Heavy Metals Detection

T. Patarau, D. Petreus, R. Etz, C. Orian and E. Darvasi[2]

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

[2] Department of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania

P1.14 New resources in Romanian m-education for students and engineers using high-tech devices

Huţanu Constantin

Applied Electronics Department, "1 Decembrie 1918" University, Faculty of Science

P1.15 New Frontiers in Education –Training in Biology for Electrical Engineers

M. Varga and K.-J. Wolter

Department of Electrical Engineering and Information Technology, Electronics Packaging Laboratory, Dresden University of Technology, Germany

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Friday, October 25   *Dear presenter, stick- up your poster before session!*

17:00 – 18:00 AFCEA Romania **Poster Session** (Conference and Poster Room)

NOTE: Each author must deliver a 3 minutes slide show presentation of his/her work.

Session Chair: Dorel AIORDACHIOAIE, AFCEA „Dunarea de Jos" University Student Club Chapter Advisor, Romania

Session Co-Chair: Raimon JÁNÓ, AFCEA U.T. CLUJ Student Club Chapter President,

Evaluators:

Detlef BONFERT, Fraunhofer EMFT, Munich, Germany

Cristian FARCAS, TU Cluj-Napoca, Romania

Oliver KRAMMER, Budapest University of Technology and Economics, Hungary

Cristina Oprea, TENSOR srl, Romania

Ioan LIŢĂ, University of Piteşti, Romania

Ion Marghescu, "Politehnica" University of Bucharest, Bucharest, Romania

PA.1 Factors Influencing the Formation of Voids in Chip Component Solder Joints

M. Pantazică, H. Wohlrabe[1], K.-J. Wolter[1], and P. Svasta

Center for Technological Electronics and Interconnection Techniques, "Politehnica" University of Bucharest (UPB-CETTI), Bucharest, Romania

[1] Centre of Microtechnical Manufacturing, Dresden University of Technology, Dresden, Germany

PA.2 Modeling and Simulation of Inductive Structures for Non-Invasive Medical Uses

B. Mihailescu, I. Plotog, P. Svasta, C. Marghescu

Center for Technological Electronics and Interconnection Techniques

"Politehnica" University of Bucharest, Romania

PA.3 Thermal Modelling of IC Packages

Fodor Alexandra, Jánó Rajmond

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

PA.4 Progressive Transmission Line Matching when Encountering Via Mismatching

M. Dărăban, D. Pitică

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

PA.5 Low-cost Picoammeter for Dielectrics

S. Epure, R. Belea, and L. Frangu

Dept. of Electronics and Telecommunications, University „Dunărea de Jos" of Galaţi, Romania

PA.6 On Change Detection for Improved Reliability

D. Aiordachioaie and M. Andrei

Electronics and Telecommunication Department, "Dunărea de Jos" University of Galaţi, Romania

PA.7 Hardware Implementation of the IDEA NXT Crypto-Algorithm

Andreea Bozesan, Flavius Opritoiu, Mircea Vladuţiu

Computer Science and Engineering Department, "Politehnica" University of Timişoara

PA.8 Programmable Interface for a Signal Generator and Logic Analyzer System

R. Szabó, and A. Gontean

Applied Electronics Department, Faculty of Electronics and Telecommunications,
"Politehnica" University of Timisoara, Romania

Friday, October 25   *Dear presenter, stick- up your poster before session!*

18:00 – 19:30 **Poster Session II** (Conference and Poster Room)
NOTE: Each author must deliver a 3 minutes slide show presentation of his/her work.

Session Chair: Pavel Mach, Technical University of Prague, Czech Republic
Session Co-Chair: Oliver KRAMMER, Budapest University of Technology and Economics,
Budapest, Hungary

Evaluators:
Detlef BONFERT, Fraunhofer EMFT, Munich, Germany
Mihai BRANZEI, "Politehnica" University of Bucharest, Romania
Ciprian IONESCU, "Politehnica" University of Bucharest, Romania
Cristian FARCAS, Technical University of Cluj-Napoca, Romania
Dan PITICĂ, Technical University of Cluj-Napoca, Romania
Paul SVASTA, "Politehnica" University of Bucharest, Romania
Klaus WOLTER, Dresden University of Technology, Germany

P2.1 PCB Layout optimization for LED Backlight module using FEM Simulation

Aurelian Botau, Catalin Negrea

Interior Instrumentation Driver Human-Machine Interface

Continental Automotive, Timisoara, Romania

P2.2 Models of Dielectric Materials used in High-Speed Design by FD2TD Method

D. Bucur, G. Lojewski, and N. Militaru

Telecommunication Department, Faculty of Electronics, Telecommunications and
Information Technology / "Politehnica" University of Bucharest, Romania,

P2.3 Adaptive Noise Cancellation using LabVIEW

C. I. Dumitrescu, I.M. Moise, B. Soare, N. Dumitru

The Departement of Telematics and Electronics for Transport, "Politehnica" University of
Bucharest, Romania

P2.4 The Effect of Cavity Length on the Cooling of the High Power Semiconductor Diode Laser

E. Farsad, S. P. Abbasi, and M. S. Zabihi

Semiconductor diode laser group, Iranian national center for laser and science and technology, Tehran, Iran

P2.5 Experimental Stand Trial for Hybrid Hydro Power-Wind

R. Joian, D. Petreuş, R. Etz, C. Lung[1]

Technical University of Cluj-Napoca, Faculty of Electronics, Telecommunications and Information Technology, Dept. of Applied Electronics, Renewable Energy Research Center

[1] Technical University of Cluj-Napoca, Baia Mare North University Center,
Faculty of Engineering, Department of Electrical Engineering, Electronics and Computers

P2.6 Simulator for Signals from Semiconductor Radiation Sensors Used in Testing of Radiation Measurement Apparatus

I. B. Cioc, I. Lita and D. A. Visan

Electronics, Communications and Computers Department, University of Pitesti
Pitesti, Romania

P2.7 A Numerical Study on the Thermal Management of a LED Array in TFT TV

Omer Mermer[1,2], Metin Nil[2], and Bahattin Akgul[3]

[) Department of Electrical and Electronics Engineering, Gediz University, Izmir, TURKEY,

[2] Department of Electrical and Electronics Engineering, Ege University, Izmir, TURKEY

[3] Department of Mechanical Engineering, Celal Bayar University, Manisa, TURKEY

P2.8 Adaptive Time-Frequency Parameterization of Epileptic Spike

I. M. Moise, C. I. Dumitrescu, N. Dumitru, B. Soare

The Departement of Telematics and Electronics for Transport
University Politehnica of Bucharest, Romania

P2.9 Data Improvement in Lab Verification of Smart Power Products using DoE

Anamaria Oros, Manuel Harrant, Ingrid Kovacs, Monica Rafaila, Marina Topa, Georg Pelz

1) Basis of Electronics, Technical University of Cluj-Napoca, Romania
2) Automotive Power, Infineon Technologies, Neubiberg, Germany

P2.10 Differential Power Analysis: Simulated versus Experimental Attacks

C. L. Piţu[1,2] and R. Câmpeanu

[1] Automation & Information Technology, Transilvania University of Braşov, Braşov, România

[2] Corporate Technology, Siemens, Braşov, România

P2.11 Two Parameter Extraction Solutions for High Temperature SiC Schottky Diodes – Converging to Reality

G. Pristavu, G. Brezeanu, and F. Draghici
 "POLITEHNICA" University of Bucharest, Romania

P2.12 Compact High-Low Impedance Transformer

Ruei-Ying Fang, Chia-Fen Liu, Chieh-Yu Liao, and Chun-Long Wang
Department of Electronic Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan

P2.13 Reduction of Common-Mode Noise Using SMD Capacitor with Grounded Via

Che-Yu Lin, Bao-Ren Huang, and Chun-Long Wang
Department of Electronic Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan

P2.14 Comparative Analysis of the Measurement Methods for the Wire's Position using the TSL1405R Optical Sensor

V. Bande, S. Pop, and D. Pitica
Applied Electronics Departement, Technical University of Cluj Napoca, Cluj Napoca, Romania,

P2.15 Practical PWM Strategy in Home Applications

E. Ceuca, Gh. Marc
Department of Engineering
"1 DECEMBRIE 1918" University of Alba Iulia, Romania

P2.16 Shunt less current monitoring technique

T. Dachin, D. Pitica[1], and G. Chindris[1]
Applied Electronics, ULBS, Sibiu, Romania
[1] Applied Electronics, Technical University of Cluj Napoca, Cluj-Napoca. Romania

Saturday, October 26   *Dear presenter, stick- up your poster before session!*

13:30 – 15:15 **Poster Session III** (Conference and Poster Room)
NOTE: Each author must deliver a 3 minutes slide show presentation of his/her work.

Session Chair: Detlef BONFERT, Fraunhofer EMFT, Munich, Germany
Session Co-Chair: Laurentiu FRANGU, "Dunărea de Jos" University of Galaţi, Romania

Evaluators:

Alexandru Borcea, ARIES , Romania

Balázs ILLÉS, Budapest University of Technology and Economics, Hungary

Ciprian IONESCU, "Politehnica" University of Bucharest, Romania

Ion Marghescu, "Politehnica" University of Bucharest, Bucharest, Romania

Ioan Plotog, "Politehnica" University of Bucharest, Romania

Marian VLADESCU, "Politehnica" University of Bucharest, Romania

Dan VUZA, Institute of Mathematics of the Romanian Academy, Romania

Klaus WOLTER, Dresden University of Technology, Germany

P3.1 Electronic System for Air Purification

Grama, O. Pop, and A. Taut

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

P3.2 An Innovative Approach towards E-health in Development of Tele Auscultation System for Heart using GSM Mobile Communication Technology

Muhammad Ahmed Khan, Syed Faraz Jawed[1], Muhammad Owais Khan[2] and Osama Mazhar[3]

Computer & Electrical Engineering, Lucian Blaga University, Sibiu, Romania,

[1] Biomedical Engineering, N.E.D University, Karachi, Pakistan

[2] Biomedical Engineering, N.E.D University, Karachi, Pakistan

[3] Mechatronics Engineering, N.E.D University, Karachi, Pakistan

P3.3 Multifunctional Communication System Controller Implemented in FPGA

C. Lung, and A. Buchman[1]

Electrical, Electronics and Computer Engineering Department, Technical University of Cluj Napoca North University Center of Baia Mare, Baia Mare, Romania,

[1] Faculty of Informatics, Debrecen University, Debrecen, Hungary

P3.4 Embedding Android Devices in Automation Systems

Maximilian Nicolae, Laurentiu Lucaci1, and Ilona Moise[2]

Department of Automatic Control and Industrial Informatics,

 University "Politehnica" of Bucharest, Romania,

[1] Faculty of Automatic Control and Computers

[2] Department of Remote Controls and Electronics

P3.5 Automated System for Evaluating Health Status

I.Orha, S. Oniga[1]

Electric, Electronic and Computer Engineering /Technical University of Cluj-Napoca, North University Center Baia Mare, Baia Mare, Romania

[1] Faculty of Informatics, University of Debrecen, Hungary

P3.6 Digital Control Algorithm for Buck Converter

Ovidiu Pop, Adrian Taut, Alin Grama

Applied Electronics Department, Technical University of Cluj-Napoca,

P3.7 Six Channel AC/DC Current Data Logger used in Industrial Application

S. Pop, V. Bande, and D. Pitica

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

P3.8 Microcontroller based Health Monitoring System

J. Sütő, S. Oniga[1] and I. Orha[2]

Faculty of Informatics, University of Debrecen, Debrecen, Hungary

[1] Faculty of Informatics, University of Debrecen, Debrecen, Hungary

[2] Electric, Electronic and Computer Engineering /Technical University of Cluj-Napoca, North University Center Baia Mare, Baia Mare, Romania

P3.9 Electronic Ballast in Half-Bridge Configuration with Power Factor Correction

Adrian Taut, Ovidiu Pop, Alin Grama

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

P3.10 Electro-Magnetic Actuated Vibrating Platform

Alexandru Vasile, Constantin Bucşan[2],Laura Trifan[3]

[1] "Politehnica" University of Bucharest, Romania, Center for Technological Electronics and Interconnection Techniques, UPB-CETTI

[2] Department of Mechatronics and Precision Engineering, UPB, Bucharest, Romania

[3] Faculty for Engineering in Foreign Languages, UPB, Bucharest, Romania

P3.11 EDLC Hybrid System with Increased Lifespan for Supplying an UPS

A.Vasile, C. Marghescu

"Politehnica" University of Bucharest, Romania, Center for Technological Electronics and Interconnection Techniques, UPB-CETTI

P3.12 Lead/Lead Free Solder Joints Comparative Electrical Tests Function of the Microstructure and Soldering Thermal Profile

M. Branzei, I. Plotog[2], F. Miculescu, G. Varzaru[2], B. Mihailescu[2], A. Bibis and I. Cristea

[1] Faculty of Material Science and Engineering, University Politehnica of Bucharest, Romania

[2] Center of Technological Electronics and Interconnection Techniques-CETTI, "POLITEHNICA" University of Bucharest, Romania

P3.13 Investigating the mechanical effect of the solder joint thickness with simulation

T. Garami, O. Krammer

Department of Electronics Technology, Budapest University of Technology and Economics

P3.14 Electrochemical Migration of Copper in Pure Water used in Printed Circuit Boards

B. Medgyes, B. Illés and L. Gál

Department of Electronics Technology, Budapest University of Technology and Economics

P3.15 Pseudo Random Self-Test Architecture for Advanced Encryption Standard

Flavius Opritoiu, Andreea Bozesan, Mircea Vladutiu

Advanced Computing Systems and Architectures (ACSA) Laboratory,

Computer Science and Engineering Department, "Politehnica" University of Timisoara,

P3.16 Lead/Lead Free Solder Joints Comparative Shear Tests Function of Work Temperature and Soldering Thermal Profile

I.Plotog, M. Branzei[2], G. Varzaru, B. Mihailescu, A. Bibis[2] and I. Cristea[2]

[1] Center of Technological Electronics and Interconnection Techniques-CETTI, "POLITEHNICA" University of Bucharest, Romania

[2] Faculty of Material Science and Engineering, "Politehnica" University of Bucharest, Romania

P3.17 Nanostructured materials for transparent electronics

V. Musat, E.Valcu, P. Alexandru and L. Frangu[2]

Centre of Nanostructures and Functional Materials, Faculty of Materials Science and Enviroment, University "Dunarea de Jos" of Galati, Romania

[2] Dept. of Electronics and Telecomm., "Dunărea de Jos" University of Galaţi, Romania

Saturday, October 26 *Dear presenter, stick- up your poster before session!*

16:45 – 17:45 **Poster Exercise Session** (Conference and Poster Room)
NOTE: Each author must deliver a 3 minutes slide show presentation of his/her work.

Session Chair: Zsolt ILLYEFALVI-VITÉZ, Budapest University of Technology and Economics, Hungary
Session Co-Chair: Radu BOZOMITU, "Gheorghe Asachi" Technical University of Iaşi, Romania

Evaluators:
Detlef BONFERT, Fraunhofer EMFT, Munich, Germany
Cristian FARCAS, TU Cluj-Napoca, Romania
Oliver KRAMMER, Budapest University of Technology and Economics, Hungary
Ioan LIŢĂ, University of Piteşti, Romania,
Ioan Plotog, "Politehnica" University of Bucharest, Romania
Alexandru Vasile, "Politehnica" University of Bucharest, Romania

PE.1 MEMS-Based Inertial Measurement Units and Map Matching Techniques
Sabou Sebastian, Lung Claudiu, Orha Ioan
Electrical, Electronic and Computer Department
Technical University of Cluj Napoca - North University Centre of Baia Mare

PE.2 Simulation of a Low Noise, Low Power Variable Gain Amplifier for Ultrasounds
Adrian Virgil Crăciun
Siemens Corporate Technology, Romania
Electronics and Computer Department, Transilvania University of Brasov, Romania

PE.3 On Preventing Differential Power Analysis using Data Masking
C. L. Piţu[1,2], and R. Câmpeanu
[1] Automation & Information Technology, Transilvania University of Braşov, Braşov, România
[2] Corporate Technology, Siemens, Braşov, România

PE.4 Electrochromic Display Driver
R. A. Dobre, C. Ionescu
"Politehnica" University of Bucharest, Romania, Center for Technological Electronics and Interconnection Techniques, UPB-CETTI

PE.5 Development and Testing of a Temperature and Humidity Measurement Micro System

B. Damian, E. Samedin, and A. Drumea

Department of Electronics Technology and Reliability, "Politehnica" University of Bucharest, Bucharest, Romania

PE.6 Secure VoIP Communication Protocol using a Custom Hardware Device

Andrei MARGHESCU and Paul SVASTA

Politehnica" University of Bucharest, CETTI, Romania

PE.7 Technology in 21st Century Students' Life

A.F. Glavan and R.I. Glavan[1]

Faculty of Electronics, Telecommunications and Information Technology,

Politehnica University of Bucharest, Bucharest, Romania

[1] Department of Economic Informatics and Cybernetics, The University of Economic Studies, Bucharest, Romania

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Galaţi

History and Location

Galati is the capital and also the largest city of Galati county The first documentary mention of the city of Galaţi dates from 1445 (in a document signed by Prince Stephen II). Galati Municipality is one of the largest economic centres in Romania, with a rich history due to the fact that it is located on the Danube River, the most important European commercial artery the Danube-Main-Rhine. Economic life developed around the Naval Shipyard, the river port, around Arcelor-Mittal Steel Works and Ore Harbour.
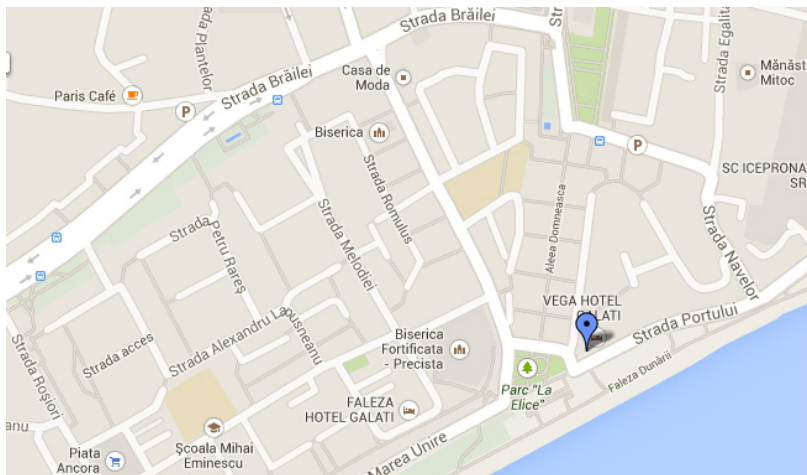
Location of conference:

The conference will take place at VEGA Hotel, Blvd. Marii Uniri 107, 800329, **Galaţi, Romania**

GPS coordinates:

N 45.4298
E 28.0560

For the travel from Bucharest to Galaţi (Vega hotel): http://goo.gl/maps/nsa6T

For more information and access: http://www.vegahotel.ro/

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The conference fee includes the opening ceremony and welcome reception, full access to all technical (oral and poster) sessions, exhibition area, all meals (breakfasts, coffee breaks, lunches and dinners), three nights accommodation, printed abstracts proceedings, conference proceedings on memory stick, conference kit (conference bag, badge, booklet, pen, and other related objects), and participation to the cultural programme.
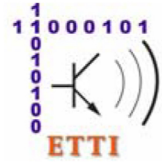
Time zone   EET (UTC+2)
Summer (DST) EEST(UTC+3)

CONTACT INFORMATION

Registration Officer   Delia Lepădatu
                                  0040.720.093.945
                                  0040.769.247.904

Travel Advisor   Mihaela Andrei
                                  0040.745.004.965

Multimedia   Bogdan Mihăilescu
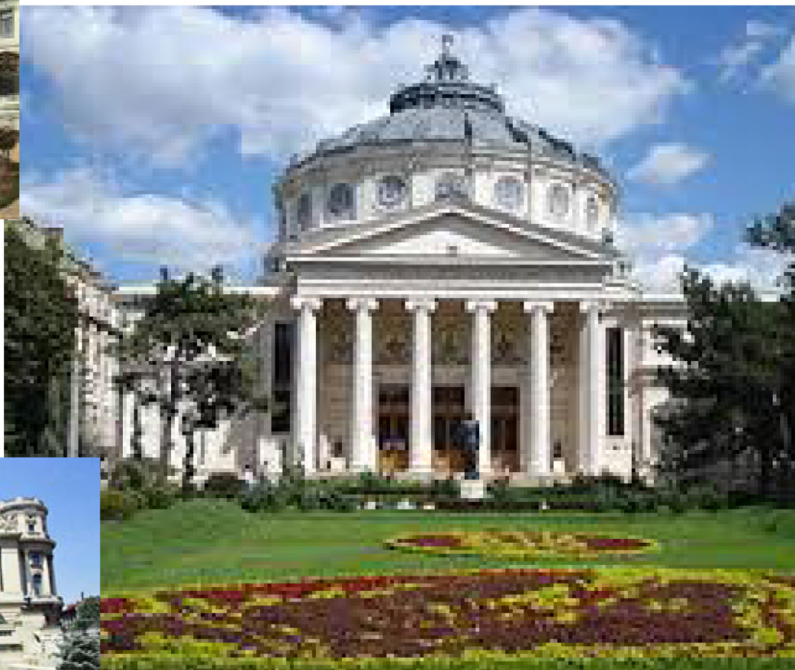   0040.723.077.221

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