

IMAPS 2014 Conference Programme:

Sunday 21.09:

15 ⁰⁰	Reception
19 ⁰⁰ – 21 ⁰⁰	Dinner
20 ⁰⁰	IMAPS Poland Board Meeting

Monday 22.09:

7 ⁰⁰ – 9 ⁰⁰	Reception
8 ⁰⁰ – 9 ⁰⁰	Breakfast
9 ⁰⁰ – 9 ¹⁵	Conference Opening
9 ²⁰ – 10 ⁵⁰	Plenary session I – Chairmen: M. Jakubowska, J. Felba

D. Klepacki, W. Sabat, K. Kamuda, K. Kuryło
Signal integrity in electronic circuits and communication interfaces

K. Malecha, E. Remiszewska, D. Pijanowska
Technology and application of LTCC-based microfluidic module for urea determination

P. Jasiński, D. Szymczewska, A. Chrzan, J. Karczewski
Functional layers for solid oxide fuel cells

11 ⁰⁰ – 11 ³⁰	Coffee Break
11 ³⁰ – 13 ⁰⁰	POSTER SESSION A

A01	Piotr Jankowski-Miśkiewicz, Wojciech Lichoń, Grzegorz Pitera, Mariusz Węglarski Determination of the Material Relative Permittivity in the UHF band by using T and Modified Ring Resonators
A02	Damian Kawalec, Piotr Jankowski-Miśkiewicz, Mariusz Węglarski Synthesis of Omnidirectional Read/Write Device Antenna for UHF RFID System
A03	Krzysztof Jankowski, Artur Wymysłowski Influence of multi-failure modes on reliability of solder joints
A04	Wojciech Stefan Grzesiak, Piotr Maćków, Beata Synkiewicz, Szymon Zawora, Ewa Klugmann-Radziemska, Paweł Grzesiak The use of LiFe PO4 technology in autonomous PV systems
A05	Thomas Maeder, Caroline Jacq, Peter Ryser Manufacturing and trimming of a low-cost industrial thick-film force sensor
A06	Piotr Guzek Magnetolectric coupling in ferromagnetic-ferroelectric bulk composites
A07	Marina Santo Zarnik, Sandi Kocjan, Marko Stušek, Darko Belavic Critical impact of packaging on characteristics of LTCC pressure sensors – A case study
A08	Piotr Panek Effect of a thermal SiO₂ layer on the solar cell electrode metallization process
A09	Piotr Krzysztof Kocanda, Andrzej Kos Energy losses in CMOS digital circuits vs. technology scaling
A10	Kazimierz Drabczyk, Jarosław Domaradzki, Piotr Panek, Danuta Kaczmarek Investigation of electrical performance of silicon solar cells with transparent counter electrode
A11	Kazimierz Drabczyk, Robert Socha, Agata Skwarek Copper deposition on screen printed electrical paths for solar cell application
A12	Ryszard Kisiel, Zbigniew Szczepański Technology of flexible connections for low temperature applications
A13	Jan Macioszczyk, Karol Malecha, Leszek Golonka Impact of Processing Parameters on the LTCC Channels Geometry
A14	Janusz Sitek, Wojciech Stęplewski, Kamil Janeczek, Marek Koscielski, Krzysztof Lipiec, Piotr Ciszewski, Tomasz Krzaczek Influence of Assembly Parameters on Lead-free Solder Joints Reliability in Package-on-Package (PoP) Technology
A15	Marek Kościelski, Janusz Sitek, Wojciech Stęplewski, Grażyna Koziol, Piotr Ciszewski, Tomasz Krzaczek Materials and Soldering Challenges in Lead-free Package-on-Package (PoP) Technology
A16	Konrad Kiełbasiński, Jerzy Szałapak, Jakub Krzemiński, Anna Młodziak, Elżbieta Zwierkowska, Małgorzata Jakubowska The method of calculating thermal diffusivity and conductivity for irregularly shaped samples in Laser Flash Analysis

A17	Jarosław Kita, Annica Brandenburg, Irina Sudina, Ralf Moos High-Temperature Miniaturized Furnace manufactured in HTCC-Technology
A18	Jerzy Kalenik, Mateusz Mroczkowski, Piotr Firek, Elżbieta Czerwosz, Jan Szmidt Deterioration of electronoluminescent lamps properties
A19	Piotr Zachariasz, Jan Kulawik, Piotr Guzdek, Marcin Sikora Synthesis, microstructure and magnetoelectric coupling of Sr₃CuNb₂O₉-CoFe₂O₄ multiferroic composite
A20	Franciszek Balik, Andrzej Dziedzic Low-Temperature Properties of Thick-Film Resistors – a Comparative Study
A21	Piotr Markowski, Eugeniusz Prociów, Łukasz Urbaniak The thermoelectric parameters of thin-film germanium-based layers
A22	Adam Witold Stadler, Andrzej Kolek, Zbigniew Zawiślak, Andrzej Dziedzic, Wojciech Stęplewski Noise measurements of thin-film resistors with the use of multi-channel dual-phase virtual lock-in technique
A23	Adam Witold Stadler, Andrzej Kolek, Krzysztof Mleczek, Zawiślak Zbigniew, Andrzej Dziedzic, Wojciech Stęplewski Noise sources in polymer thick-film resistors
A24	Patryk Gwiżdż, Andrzej Brudnik, Katarzyna Zakrzewska Gas detection and recognition by thermally-induced metal oxide sensor array
13 ⁰⁰ – 14 ⁰⁰	Lunch
14 ⁰⁰ – 15 ³⁰	Plenary session II – Chairmen: L. Golonka, R. Kisiel P. Svasta Layout Design of Printed Circuits Boards – An Important Issue of the 21st Century Undergraduate Electronics Curricula M. Jakubowska Printed electronics – materials and devices W. Stęplewski, A. Dziedzic, A. Kłossowicz, P. Winiarski, J. Borecki, G. Koziół, T. Serzysko Reactance components embedded in Printed Circuit Boards
15 ³⁰ – 16 ⁰⁰	Coffee Break
16 ⁰⁰ – 17 ³⁰	POSTER SESSION B
B01	Marek Gotfryd, Bartosz Pawłowicz, Sebastian Twardzik Simulations of Dynamic RFID System
B02	Marek Gotfryd, Bartosz Pawłowicz Measurements of Dynamic RFID System
B03	Marek Gotfryd, Bartosz Pawłowicz Influence of Communication Protocol on Energy Consumed by RFID Tag
B04	Krzysztof Górecki, Paweł Górecki The analysis of accuracy of the selected methods of measurement of thermal resistance of IGBTs
B05	Krzysztof Górecki, Krzysztof Górski, Małgorzata Rogalska Estimation of parameters of the electrothermal model of the impulse-transformer
B06	Krzysztof Górecki, Przemysław Ptak Modelling of mutual thermal coupling in LED modules
B07	Vasyl' Yo. Stadnyk, Bohdan V. Andriyevsky, Mykola O. Romanyuk, Zenovij O. Kohut, Volodymyr M. Gaba Optical properties of D-serine doped TGS crystals as material for pyroelectric sensors
B08	Kazimierz Kuryło, Dariusz Klepacki, Wiesław Sabat, Kazimierz Kamuda Generation of higher current harmonics in electronic ballasts used in fluorescent lamps
B09	Dariusz Klepacki, Wiesław Sabat, Kazimierz Kamuda, Kazimierz Kuryło Conditions of RF energy harvesting in UHF RFID systems
B10	Wiesław Sabat, Dariusz Klepacki, Kazimierz Kamuda, Kazimierz Kuryło Analysis of electromagnetic fields distribution in RFID systems in ideal conditions
B11	Kazimierz Kamuda, Dariusz Klepacki, Wiesław Sabat, Mariusz Skoczylas, Paweł Reizer, Kazimierz Kuryło Power consuming properties of ADC converter of C8051F9xx microprocessor family for application in sensor systems of semi-passive identifier
B12	Paweł Winiarski, Adam Kłossowicz, Wojciech Stęplewski, Andrzej Dziedzic Electrical properties of thin-film resistors in wide range of temperature
B13	Eugeniusz Prociów, Piotr Markowski, Andrzej Dziedzic, Adam Kłossowicz, Paweł Winiarski, Łukasz Urbaniak The optimization of thermoelectric layers based on doped germanium

B14	Mateusz Mroczkowski, Jerzy Kalenik Study of constant electric field treatment influence on ZnS:Cu,Cl phosphors on degradation processes
B15	Darko Belavic, Tadej Rojac Piezoelectric Resonant Ceramic Pressure Sensor Designed for High Temperature Applications
B16	Darko Belavic, Marko Hrovat 3D LTCC Structure for Cavity-type Chemical Reactor
B17	Barbara Dziurdzia, Zbigniew Magoński, Henryk Jankowski Cold Embossing in Fuel Cell Fabrication
B18	Mateusz Mroczkowski, Wojciech Steplewski, Konrad Futera, Radoslav Darakchiev, Grażyna Koziół New technologies of multi-layered printed circuit boards, intended of rapid-design electronic modules
B19	Aneta Arażna, Konrad Futera, Małgorzata Jakubowska, Grażyna Koziół, Łucja Dybowska-Sarapuk Investigation of treated PEN foil surface properties for inkjet application
B20	Alena Pietrikova, Kornel Ruman, Tibor Rovensky, Igor Vehec Impact's Analysis of the LTCC materials on the microstrip filters' behaviour up to 13 GHz
B21	Andrzej Pepłowski, Daniel Janczak, Grzegorz Wróblewski, Marcin Słoma, Łukasz Górski, Elżbieta Malinowska, Tadeusz Pałko, Małgorzata Jakubowska Graphene electrodes for voltammetric measurements in biological fluids
B22	Ryszard Świerczyński, Krzysztof Urbański, Tomasz Fałat, Artur Wymysłowski Smart sensor for CTE measurements of thin layers of thermal interface materials
B23	Mirosław Gierczak; Paweł Walasek, Piotr Markowski Characterization of LTCC-based electromagnetic microgenerators
B24	Mirosław Gierczak, Sebastian Dziewięcki, Piotr Markowski The automatic system for the characterization of thermoelectric microgenerators
18 ⁰⁰ – 19 ⁰⁰	IMAPS Poland General Assembly Meeting
19 ³⁰	Fire and Barbecue Meeting

Tuesday 23.09:

8⁰⁰ – 9⁰⁰

Breakfast

9⁰⁰ – 11⁰⁰

Plenary session III – Chairmen: A. Dziedzic, P. Svasta

M. Węglarski, P. Jankowski-Mihułowicz, W. Kalita

Autonomous sensor with RFID interface

R. Kisiel, M. Guzewicz, M. Myśliwiec, N. Kwietniewski

Materials and Technological Aspects of High-Temperature SiC Package Reliability

Z. Hotra, M. Chapran, I. Helzhynskyy, J. Potencki

Modern state of white organic light-emitting diodes

M. Jakubowska, K. Kiełbasiński, K. Marszałek, T. Stapiński, G. Wróblewski, J. Jaglarz

EuroTraining 1

Carbon nanomaterials dedicated to PV module heating system

11⁰⁰ – 11³⁰

Coffee Break

11³⁰ – 13⁰⁰

POSTER SESSION C / EuroTraining (Posters)

C01 EuroTraining	Kamil Nouri Allaf, Artur Wymysłowski Application of molecular modelling in micro and nano material technologies
C02 EuroTraining	Weronika Izydorczyk, Wiesław Domański, Krzysztof Waczyński, Janusz Mazurkiewicz, Jerzy Uljanow Microstructure and NO₂ gas-sensing properties of SnO₂ thin films and nanowires
C03 EuroTraining	Zenon Hotra, Grzegorz Bład, Andriy Fechan, Zinoviy Mykytyuk, Orest Sushynskiy, Maria Vistak Modification of Liquid Crystalline Phases by Nanomaterial Dopants for the Electronic Devices Elements
C04 EuroTraining	Zsolt Illyefalvi-Vitez, Oliver Krammer Global Networks on Nanotechnology Education
C05 EuroTraining	Iwona Wyżkiewicz, Elżbieta Zwierkowska, Konrad Kiełbasiński, Anna Młodziak, Małgorzata Jakubowska Graphene inks for industrial printing techniques

C06 EuroTraining	Michał Sobaszek, Łukasz Skowroński, Robert Bogdanowicz, Marcin Gnyba, Łukasz Gołuński, Piotr Płotka High refractive index ultra-thin nanocrystalline boron doped diamond film for NIR waveguiding
C07 EuroTraining	Tomasz Fałat, Przemysław Matkowski, Jan Felba, Andrzej Mościcki Low-temperature sintered nano-silver based thermal interface materials
C08 EuroTraining	Grzegorz Wróblewski, Marcin Słoma, Daniel Janczak, Anna Młóżniak, Małgorzata Jakubowska Influence of electric field on separation and orientation of graphene nanoplatelets and carbon nanotubes in spray deposited layers
C09 EuroTraining	Oliver Krammer, Zsolt Illyefalvi-Vitéz, Attila Bonyár, Tamás Hurtony Micro- and nano characterisation of intermetallics in lead-free solder joints
C10 EuroTraining	Konrad Futera, Konrad Kiełbasiński, Anna Młóżniak, Grażyna Kozioł, Małgorzata Jakubowska Inkjet printed microwave circuits on flexible substrates using heterophase graphene based inks
C11 EuroTraining	Grzegorz Tomaszewski, Jerzy Potencki, Tadeusz Wałach, Mariusz Pilecki Investigation of ink spreading on various substrates in inkjet technology
C12	Bogdan Mihailescu, Paul Svasta, Alexandru Borcea ELINCLUS Cluster - Bridge between Academia and Industry as An Innovation Accelerator
C13	Zbigniew Suszyński, Michał Bednarek, Paweł Zarzycki Thermal-wave investigation of physical and geometrical non-uniformities within TLC stationary phases
C14	Marek Guziewicz, Krystyna Gołaszewska, Renata Kruszka, Marcin Myśliwiec, Anna Piotrowska, Cezariusz Jastrzebski, Jarosław Z. Domagała Effect of thermal ohmic contact formation on strain in AlGaIn/GaN structure
C15	Sylvia Przywoska, Marek Guziewicz, Renata Kruszka, Marcin Juchniewicz, Edyta Piskorska-Hommel, Jarosław Domagała, Andriej Klimov, Jan Bar, Wojciech Słysz Composition analysis of epitaxial NbTiN films for superconductor photon detectors
C16	Grzegorz Jasiński, Grzegorz Lentka, Piotr Jasiński Measurement system for measuring response of an array of gas sensors
C17	Paweł Jan Kalinowski, Karolina Murawska, Katarzyna Koc, Piotr Jasiński, Grzegorz Jasiński A calibration model for gas sensor array in varying environmental conditions
C18	Elżbieta Guziewicz, Tomasz Krajewski, Ramon Schifano, Dmytro Snigurenko, Krzysztof Kopalko, Marek Guziewicz, Wojciech Jung, Renata Kruszka Diode junctions based on n-type ZnO grown by Atomic Layer Deposition
C19	Łucja Dybowska-Sarapuk, Konrad Futera, Aneta Araźna, Konrad Kiełbasiński, Małgorzata Jakubowska, Anna Młóżniak The influence of viscosity and surface tension of graphene inks on drop formulation in inkjet printing
C20	Jerzy Potencki, Jacek Szuba, Grzegorz Tomaszewski, Tadeusz Wałach Experimental optimization of laser cutting process parameters to prepare stencil printing for mounting SMD electronic components on inkjet printed flexible circuits
C21	Mariusz Pilecki, Grzegorz Błąd, Jerzy Potencki, Grzegorz Tomaszewski Determination of supercapacitors leakage resistance variation
C22	Mariusz Pilecki, Grzegorz Błąd, Jerzy Potencki, Grzegorz Tomaszewski Determination of the course change of the supercapacitor equivalent model basic parameters
C23	Jarosław Domaradzki, Danuta Kaczmarek, Kazimierz Drabczyk, Piotr Panek Preparation and investigations of electrical and optical properties of functional TCO thin films

13⁰⁰ – 14⁰⁰

Lunch

14⁰⁰ – 19⁰⁰

Culture Program

19³⁰

Gala Dinner

Wednesday 24.09:

8⁰⁰ – 9⁰⁰

Breakfast

9⁰⁰ – 10³⁰

EuroTraining 2 – Chairmen: A. Pietrikova, Z. Illyefalvi-Vitéz, J. Potencki

J. Mizsei

Electronics, microelectronics, nanoelectronics...

M. Kirchner

Electron Beam Lithography - principle and applications

10³⁰ – 10⁵⁰

Coffee Break

10⁵⁰ – 12²⁰ **EuroTraining 3** – Chairmen: A. Pietrikova, Z. Illyefalvi-Vitéz, J. Potencki

A. Bonyár

Enhancing biosensors with nanotechnology

R. Bogdanowicz, M. Sobaszek, J. Ryl, M. Gnyba

Deposition of nanocrystalline boron-doped diamond onto epitaxial GaN films for high power electronic and optoelectronic devices

Problem solving discussion

12²⁰ – 12³⁰

Closing Ceremony

13⁰⁰ - 14⁰⁰

Lunch