

**Wednesday, 11 May 2022**

16:00	- <b>Opening of Registration Desk in Springer Schlössl</b> Local Organizing Committee
19:00	- Welcome Dinner in Springer Schlössl
20:00	- 1 <sup>st</sup> Steering Committee Meeting Chaired by Heinz Wohlrabe

**Thursday, 12 May 2022**

08:30	- <b>Opening Session; Campus Hall</b> Golta Khatibi, TU Wien, Austria, and Heinz Wohlrabe, TU Dresden, Germany
08:45	<b>Oral Session 1; Campus Hall</b> Chair persons: Tomas Blecha and František Steiner
08:45	KN1 Keynote: Oliver Schilling, Infineon Technologies, Warstein, DE Power semiconductors – reliable components for green energy management
09:20	A08 Attila Géczy, Budapest University of Technology and Economics, HU Novel PLA/Flax Based Biodegradable Printed Circuit Boards
09:45	A07 Robert Langwieser, Institute of Telecommunications, TU Wien, AT Silver Ink Printed Logarithmic Spiral Antenna
10:10	- Coffee Break
10:30	<b>Oral Session 2; Campus Hall</b> Chair persons: Maria Vesna Nikolić and Balázs Illés
10:30	KN2 Elke Kraker, Head of Microelectronics Department, MCL, Austria Challenges of thermal management in microelectronics
11:05	C05 Ryszard Kisiel, Warsaw University of Technology, PL Pressureless Direct Bonding of Au Metallized Substrate with Si Chips by Micro-Ag Particles
11:30	C03 Derya Güldali, ISE Fraunhofer Freiburg, DE Material Joint Analysis of Lead-Free Interconnection Technologies for Silicon Photovoltaics
11:55	C11 Ran Yin, CeTI, TU Dresden, DE Process Developments on Sheet Molding and Redistribution Deposition for Cu-Pillar Chips
12:20	- Lunch Break
13:30	<b>Presence Poster Session 1; Campus Hall, physical presence</b> Chair persons: Emilian Ceuca, Ryszard Kisiel
	C01 Martin Hirman, University of West Bohemia in Pilsen, CZ Higher Temperature Washing of Electrically Connected SMD Components onto the Textile Ribbons
	A02 Alexandra Borók, Budapest University of Technology and Economics, HU Investigation of Plasma Etching Rates of a Methacrylate Resin
	A03 Denis Froš, Czech Technical University in Prague, CZ Thermo-mechanical Assessment of Novel Composites Intended for Fused Deposition Modeling
	A04 Markéta Klimtová, Czech Technical University in Prague, CZ Bismuth-based Solder Alloys: Influence of Added Phosphorus and Gallium on Wettability and Spreading
	A05 Iva Králová, Czech Technical University in Prague, CZ Impact of Added Gallium and Phosphorus in Bismuth-Tin Solder Alloys on Mechanical Properties and Microstructure of Intermetallic Layer
	C06 Martin Janda, University of West Bohemia in Pilsen, CZ Method of Connecting Printed and Embroidered Conductive Paths in Smart Textiles
	C07 Martin Janda, University of West Bohemia in Pilsen, CZ Examination of Wet Assembly Methods in Printed Flexible Electronics
	I09 Jiri Navratil, University of West Bohemia, Pilsen, CZ The Influence of Washing Cycles on the Conductive Threads Used in E-Textiles

14:00	<b>Online Poster Session 2; Seminar Room 2</b> Chair persons: Attila Géczy and Detlef Bonfert
	D03 Alena Pietriková, Technical University of Kosice, SK Wetting of new SnAg Surface Finish
	C04 Pavel Mach, Czech Technical University in Prague, CZ Using Dispersion Analysis to Study the Climatic Aging of Conductive Adhesive Joints
	D08 Borislav Bonev, Technical University of Sofia, BG A Microcontroller-based Compensation of High-power LED Controller in Active Infrared Thermography
	A06 Daniel Utsch, Friedrich-Alexander-University, Erlangen-Nürnberg, DE Additive Manufacturing of 3D Circuit Carriers with Improved Thermal Conductivity
14:40	<b>Presence Poster Session 1; "In-front-of-poster" Discussions; Ground Floor</b>
13:30	<b>Presence Poster Session 3; Seminar Room 2, physical presence</b> Chair persons: Klaus Wolter and Johann Nicolics
	D04 Zbyněk Plachý, Czech Technical University in Prague, CZ Behaviour of Moisture Sensitive Devices
	D06 Petr Vesely, Czech Technical University in Prague, CZ Electrochemical Migration Issues Related to Improper Solder Mask Application
	I01 Jan Kalcik, University of West Bohemia in Pilsen, CZ Ultrasonic Welded Textile Thermocouples
	K01 Tomas Blecha, University of West Bohemia in Pilsen, CZ Methods for the Capacity Increasing of Textile Capacitors
	F03 Adrian Tulbure, "1 Dec.1918" University of Alba Iulia, RO Accuracy and Convergence Analysis of Software Tools for Solar Energy Assessment
	E03 Rebeka Kovács, Budapest University of Technology and Economics, HU Numerical Simulations of Shear Stress in Microfluidic Channel Models
	E06 George Angelov, Technical University of Sofia, BG IC Implementation of Subthreshold Current Temperature Independent Power-on-Reset Circuit
	G03 Shireen Zangana, Budapest University of Technology and Economics, HU Determination and Comparison of the SERS Enhancement Factor for Nanocomposite Substrates
14:00	<b>Online Poster Session 4; Seminar Room 2</b> Chair persons: Oliver Krammer and Attila Bonyár
	I04 Martin Búran, Brno University of Technology, Brno, CZ Advanced Monitoring of Beer Fermentation by the System of Thermodynamic Sensors
	I05 Loredana Burciu, University Politehnica of Bucharest, RO Analysis of ZigBee, WiFi and Bluetooth Standards in OPNET Simulator for Automotive IoT Applications
	J01 Daniela Evtimovska, KOSTAL Macedonia, MK Renewed Approach of Old Processes - Milling Process of Rigid Flex Panel
	I08 Rosen Miletiev, Technical University of Sofia, BG Multisensor Precision Positioning based on Inertial and GNSS Systems via 5G Network
	E04 Mirela Olteanu, Technical University of Cluj-Napoca, RO Battery Digital Twins
14:50	<b>Presence Poster Session 3; "In-front-of-poster" Discussions; 1<sup>st</sup> Floor</b>
15:55	- Coffee Break
16:15	<b>Oral Session 3; Campus Hall</b> Chair persons: Ryszard Kisiel and Paul Svasta
16:15	D14 Kristina Sorokina, CTU Prague, CZ Influence of No-Clean Flux on The Corrosivity of Copper After Reflow
16:40	D01 Ali Gharabeh, Budapest University of Technology and Economics, HU Electrochemical Migration Investigation on Lead-Free Sn-based Solder Alloys in 3.5 wt.% NaCl Solution
17:05	D07 Johannes Drechsel, Fraunhofer-IKTS, Hermsdorf Thüringen, DE Handling and Analysis of Large Datasets Using the Example of Partial Discharge Measurement
17:30	- Individual Group Meetings and Networking
19:15	- Dinner in Springer Schlössl

## Friday, 13 May 2022

08:40	<b>Oral Session 4; Campus Hall</b> Chair persons: Tomáš Blecha and Klaus Wolter
08:40	KN3 Keynote: Francesco Iannuzzo, Prof. @ Aalborg University, DK Liquid Interconnections for Improved Reliability of Power-Electronic Components
09:15	A09 Kristof Hegedus, Budapest University of Technology and Economics, HU Deposition of Perovskite Thin Layer with Electro spraying for Solar Cells
09:40	E01 Viktor Dudash, GlobalFoundries, Dresden, DE Design of Reliability Test Assemblies for WLCSP Solder Interconnects using Finite Element Modeling
10:05	D10 Martin Lederer, TU Wien, Vienna, AT Accelerated Fatigue Testing and Lifetime Modelling of Solder Interconnects in Power Electronics
10:30	- Coffee Break
10:50	<b>Oral Session 5; Campus Hall</b> Chair persons: Golta Khatibi and Johann Nicolics
10:50	KN4 Keynote: Toni Mattila, Sustainable Manufacturing at Business Finland, FI Sustainability in Electronics
11:25	D02 Nicolae Gross, University of Sibiu, RO Development and Validation of the Wheel Speed Sensor interface based on V-Model Method
11:50	K02 Rituraj S. Rathora, University of KwaZulu-Natal, Durban, South Africa, ZA Effect of Metal Gate Work Function Variation on Underlap FinFET
12:15	- Lunch Break
13:25	<b>Presence Poster Session 5; Campus Hall, physical presence</b> Chair persons: Emilian Ceuca and Martin Lederer
G02	Jiri Navratil, University of West Bohemia, Pilsen, CZ Preparation and Application of Carbon Nanotubes Ink for Aerosol Jet Printing System
C12	Jiri Hlina, University of West Bohemia, Pilsen, CZ Alternative Interconnection Methods for Bare Die Electronic Components
D11	Halim Choi, Budapest University of Technology and Economics, HU Tin Whisker Susceptibility of SAC0307-ZnO Composite Solder Joints
D12	Karel Dušek, Czech Technical University in Prague, CZ A Weakness of Wetting Balance Method during the Diagnostic of Connector Pins with Wetting Issue
I11	Josef Slauf, University of West Bohemia, Pilsen, CZ Effect of the Gate Electrode/Electrolyte Interface on OECT performance
C13	Stanislav Suchy, University of West Bohemia, Pilsen, CZ Encapsulation Methods for Resistance-Welded Contacts in Smart Textiles
D13	Pavel Rous, R&D Engineer, Pilsen, CZ Influence of PCB Surface Finishes on Intermetallic Compound Growth

13:55	<b>Online Poster Session 6; Campus Hall</b> Chair persons: Adrian Tulbure and Agnieszka Betzwar
	A01 Mariya Aleksandrova, Technical University of Sofia, BG Mass Sensitive Gas Detectors Based on Bulk Micromachined Silicon Cantilevers Coated with Carbyne
	D17 Peter Lukacs, Technical University of Kosice, SK The Effect of Subtractive Manufacturing Technologies on the UWB Antenna's Scattering Parameter
	I16 Milica Kisic, University of Novi Sad, Serbia, RS 3D Printed Resistive Flexible Sensor for Motion Detection
	I17 Milica Kisic, University of Novi Sad, Serbia, RS Automated Measurement System for Characterization and Testing of Elastic Materials
14:35	<b>Presence Poster Session 5; "In-front-of-poster" Discussions; 1<sup>st</sup> Floor</b>
13:25	<b>Presence Poster Session 7; Seminar Room 2, physical presence</b> Chair persons: David Bušek and Heinz Wohlrabe
	C09 Madalin Moise, University Politehnica of Bucharest, RO IoT Environmental Monitoring and Control System in a Research Centre
	C10 Madalin Moise, University Politehnica of Bucharest, RO IoT Portable Patient Health Monitoring System using MEMS Sensors
	I13 Elitsa Gieva, Technical University of Sofia, BG Remote Tracking System for ECG Signal with Textile Electrodes
	D15 Agnieszka Betzwar Kotas, TU Wien, Vienna, AT Mechanical reliability of lead-free solder joints: Comparative study of Sn3.5Ag versus SnSbAg solder alloy
	A10 Dmytro Solonenko, Silicon Austria Labs, Villach, AT Spectroscopic ellispometry study of parylene AF4
	D18 Oliver Krammer, Budapest University of Technology and Economics, HU Image Processing Methods for Detecting Voids in the Solder Joints of Surface Mounted Resistors
	D22 Kristof Hegedus, Budapest University of Technology and Economics, HU Built-in Thermal Test as a Pre-Integrated Architecture
13:55	<b>Online Poster Session 8; Seminar Room 2</b> Chair persons: František Steiner and Detlef Bonfert
	E05 Nicolae Alexandru Sârbu, Technical University of Cluj-Napoca, RO State of Charge Estimation of Li-Ion Batteries using Artificial Neural Networks
	I12 Slavomir Kardos, Technical University of Kosice, SK Utilization of a Digital Accelerometer Unit for a Switch Array Emulation
	D20 Boris D. Dobrichkov, GlobalFoundries Bulgaria AD, BG Investigation of ESD Devices Turn-On Time Definitions
	A11 Valentin Tsenev, Technical University of Sofia, BG Combined Jet Printed and Screen Printed Solder Paste Deposit - Evaluation of Results
14:35	<b>Presence Poster Session 7; "In-front-of-poster" Discussions; 1<sup>st</sup> Floor</b>
15:25	- Coffee Break
15:40	- <b>Cultural Program Part I: City Visit Tour</b>
19:45	- Dinner in Vienna Rathauskeller

**Saturday, 14 May 2022**

09:00	<b>Oral Session 6; Campus Hall</b> Chair persons: Golta Khatibi and Paul Svasta
09:00	KN5 Keynote: Michael Nelhiebel, Research and Development, KAI GmbH, Villach, AT The 2 <sup>nd</sup> shell: research on power semiconductor reliability between industry and academia
09:35	I10 Saman Zahiri-rad, Joanneum Research, Pinkafeld, AT Visible Light based Positioning by Continuous Frequency-Modulated LEDs in Combination with Fingerprinting
10:00	I07 Hanying Wen, Fraunhofer-IPMS, Dresden, DE Improved Near-infrared Photoresponse of Si-based Schottky Diode by Nanophotonic Structures
10:25	- Coffee Break
10:45	<b>Presence Poster Session 9; Campus Hall, physical presence</b> Chair persons: Attila Bonyár and Attila Géczy
	C14 Karel Sima, University of West Bohemia, Pilsen, CZ Study of Conductive Filament Use for Rapid Prototyping of Interconnections in the Smart Textiles
	D16 Darshankumar Bhat, Fraunhofer-ICTS, Dresden, DE Damage Prediction and Remaining Useful Lifetime of Discrete Power Electronic Component Using Multi-Layer Perceptron based on Mission Profile Data
	E08 Anna Pražanová, Czech Technical University in Prague, CZ Evolution of Lithium-Ion Battery Model Parameters for CubeSats Missions
	I19 Karel Sima, University of West Bohemia, Pilsen, CZ Design and Characterization of Embroidered Electroacoustic Transducer
	D19 David Bušek, Czech Technical University in Prague, CZ Overview of Various Failures of Luminaires Assembled with SMD LED Chips
	E09 Sebastian Schuh, Forschung Burgenland GmbH, Pinkafeld, AT Simulation-Based Investigation of the Integration Capabilities of 3D-Printed Ceramic Heat Exchange Structures for Thermoelectric Modules
	B01 Milan Hurban, Senior Scientist, Pribor, CZ Optimizing of Gas Flow and Heat Transfer in Reflow Oven
11:10	<b>Online Poster Session 10; Campus Hall</b> Chair persons: David Bušek and Karel Dušek
	C02 David Michal, University of West Bohemia in Pilsen, CZ Analysis and Sintering Optimization of Nanoparticle Paste with High Silver Content
	K03 Rituraj S. Rathora, University of KwaZulu-Natal, Durban, South Africa, ZA Regression analysis of static noise margin and transconductance for underlap lengths of FinFET
	I14 Rares Pogoreanu, Technical University of Iasi, RO Wireless Gyro-mouse for Text Input on a Virtual Keyboard
11:40	<b>Presence Poster Session 9; "In-front-of-poster" Discussions; 1<sup>st</sup> Floor</b>

10:45	<b>Presence Poster Session 11; Seminar Room 2, physical presence</b> Chair persons: Balázs Illés and Oliver Krammer
	I03 Jan Balabán, University of West Bohemia, Pilsen, CZ Textile Sensor for Skin Hydration Measurement
	I06 Michaela Radouchova, University of West Bohemia, Pilsen, CZ Embroidered Flexible Elastic Textile Antenna as Strain Sensor
	D09 Taulant Sinani, Silicon Austria Labs, Villach, AT Adhesion Evaluation of Parylene AF4 to Silicon
	I15 Emilian Ceuca, Univ. 1. Decembrie 1918, Alba Iulia, RO Study and Integrated Strategies for Development and Minimizing Energy Losses in Batteries
	E07 Martin Molhanec, Czech Technical University in Prague, CZ Electrochemical Impedance Spectroscopy Processing and Modelling for Lithium-ion Batteries Using Python and Jupiter
	J02 Martin Molhanec, Czech Technical University in Prague, CZ New PhD Course: Statistical Analysis and Evaluation of Technological Data
11:10	<b>Online Poster Session 12; Seminar Room 2</b> Chair persons: Martin Lederer and Adrian Tulbure
	D05 Peter Provazek, Technical university of Kosice, SK Thick Layers' Adhesion Measurements on flexible Substrates by cross cut Adhesion Test
	D23 Valentin Tsenev, Technical University of Sofia, BG Monitoring and Stabilization of the Fully Automatic Robotic Sensor Assembly Line in the Conditions of Digital Twins
	D21 Alexandr Otáhal, Brno University of Technology, CZ Investigation of the Influence of Dam and Fill Encapsulating Material Shrinkage on a Semiconductor Substrate Warpage
11:40	<b>Presence Poster Session 11; "In-front-of-poster" Discussions; 1st Floor</b>
12:35	- Lunch Break
13:45	<b>Oral Session 7; Campus Hall</b> Chair persons: Johann Nicolics and Oliver Krammer
13:45	KN6 Keynote: Maria Vesna Nikolic, Institute for Multidisciplinary Research, University of Belgrade, Serbia Semiconducting metal oxide nanoparticles in sensors, optoelectronics and electronic devices
14:20	I02 Prashantkumar Pandey, Fraunhofer-IKTS, Hermsdorf Thüringen, DE LTCC based Passive Compensation Circuits for High Temperature Sensors
14:45	I18 Muhammad Talal Asghar, Technical University of Bergakademie Freiberg, DE Low-Cost Strain Gauge Integration in Ceramics for Force Sensor Applications
15:10	- Coffee Break
15:30	- <b>Cultural Program Part II: Visit Schloss Schönbrunn</b>
XX:XX	- 2 <sup>nd</sup> Steering Committee Meeting Chairman: Heinz Wohlrabe
19:00	- <b>Barbecue, Awarding and Closing Session in Hotel Springer Schössl</b>
<b>Sunday, 15 May 2022</b>	
07:30	- Until 11:00 Departure