MIDEM
Society for Microelectronics,
Electronic Components and Materials

61st INTERNATIONAL CONFERENCE ON MICROELECTRONICS, DEVICES AND MATERIALS (MIDEM 2026)

Time	Monday 28.9. CONFERENCE	Tuesday 29.9. WORKSHOP on Integrated Photonics	Wednesday 30.9. CONFERENCE
08:30-09:00	**Registration**	**Registration**	**Registration**
09:00-09:15	**Conference Opening**	**Workshop Opening**	**Interplay of Corrugation Geometry and Dipole Orientation on Light Extraction in Organic and Perovskite LEDs** *Milan Kovačič et al.*
09:15-09:30	Materials, Technology, and Devices-I **INVITED** **Flexible composites for energy storage and harvesting: how material design and processing affect functional properties** *Giovanna Canu*	Workshop **PLENARY** **Silicon photonics: emerging trends, opportunities and challenges** *Roel Baets*	Optoelectronics **Laser-scribed interconnections: from perovskite solar cells to mini-modules** *Shivam Nauriyal et al.*
09:30-09:45			**Integration of Temperature and Humidity Sensors into Encapsulated Perovskite Solar Cells** *Arslan Ali et al.*
09:45-10:00	**On the maximum in the piezoelectric response of the solid solution (1-x)BiFeO3-xBaTiO3** *Alberto Giribaldi et al.*		**Power Management of Bluetooth Wireless Irradiance Sensors** *Sašo Domadenik et al.*
10:00-10:15	**Utilization of Focused Ion Beam (FIB) for Cross-section and Transmission Electron Microscopy analyses of Semiconductors and Chips** *Nik Gračanin et al.*	**INVITED** **Photonic Integrated Circuits for Signal Processing and Computing** *Andrea Melloni*	**Fast Bidirectional IV Curve Acquisition of High-efficiency PV Modules** *Jaša Vid Meh Peer et al.*
10:15-10:30	**Multiscale analysis of a commercial and lab-fabricated SOFC** *Žiga Bertalanič et al.*		**Electrical modelling of High Efficiency PV modules using Spice** *Jonas Aleksander Oražem et al.*
10:30-10:45	**Coffee break**	**Coffee break**	**Compositional Design of Wide-Bandgap Perovskites for Efficient and Stable Tandem Photovoltaics** *Fernando Solorio et al.*
10:45-11:00			**Coffee break**
11:00-11:15	Materials, Technology, and Devices-II **From SEM-Induced Carbon Contamination to Nanostructure Growth and Near-Surface Transformations** *Ibrahim Hameli et al.*	Workshop **INVITED** **Photonic Integrated Circuits: From Sensing and Telecommunication to Quantum Applications** *Borislav Hinkov*	Integrated Circuits and Electronics-I **A Switched-Capacitor Auto-Zeroing Ripple Reduction Loop for a Low-Noise Chopper Charge Amplifier used in an Artificial Nose detection system** *Ajda Tuševski et al.*
11:15-11:30	**Measured and simulated ion number density in low pressure argon RF plasma** *Filip Kos Maligoj et al.*		
11:30-11:45	**PLASMA-SURFACE ENGINEERING OF Ti_2C MXENE FOR ENERGY STORAGE APPLICATIONS** *Laura Martinčič et al.*	**INVITED** **Electro-optic modulators and frequency combs in thin-film lithium niobate** *Urban Senica*	**Transient Noise Simulation in VACASK** *Árpád Bűrmen*
11:45-12:00	**Coaxial Core-Shell Carbon/Tin Sulfide Nanohybrids for High-Performance and Durable Supercapacitor Electrodes** *Anjana Baby et al.*		**A Grammatical-Evolution-Based Front-End for Automated EEC Initialization in EIS** *M. Žic et al.; presenting: M. Kunaver*
12:00-12:15	**Localized Surface Plasmon Resonance Enhanced Laser Lithography on Highly Insulating Substrates** *Shafayet Yaseen et al.*	**Group photo**	**A Single-Microcontroller Control System for Throttleable Rocket Engines** *Leon Ulčakar et al.*
12:15-13:45	**Lunch break**	**Lunch break**	**Lunch break**

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Time	Monday 28.9. CONFERENCE	Tuesday 29.9. WORKSHOP on Integrated Photonics	Wednesday 30.9. CONFERENCE
13:45-14:00	Thin and Thick Films: **0.7Pb(Fe0.5Nb0.5)O3–0.3BiFeO3 thick films for energy storage applications** *Ivana Goričan et al.*	Workshop: **INVITED** **Quantum Photonic Integrated Circuits with Self-Assembled Quantum Dots** *Leonardo Midolo*	Integrated Circuits and Electronics-II: **Device for Testing and Development of an Electric Vehicle Charging Station** *Jani Zrnec et al.*
14:00-14:15	**Optimization of Energy Storage Properties of Antiferroelectric Thick Films Through MLCC Architecture** *Thomas Fourgassie et al.*		**Reliability Challenges of Commercial Power p-Channel VDMOS Under NBT Stress** *Danijel Danković et al.; presenting: Dunja Đorđević*
14:15-14:30	**Preparation of Pb(Sc0.5Ta0.5)O3 thick films by powder aerosol deposition** *Matteo d'Angelo et al.*	**INVITED** **Microscale generation and control of nano-second light by light in liquid crystals** *Igor Muševič*	**Impact of Prior NBT Stress on the Self-Heating Behavior of Power P- and N-Channel VDMOS Transistors** *Sandra Veljković et al.; presenting: Lana Tasić*
14:30-14:45	**Fabrication of polyimide thick films via powder aerosol deposition** *Nejc Suban et al.*		**Impact of Gamma Radiation on Breakdown Voltage Stability and Reliability of Gas-Filled Surge Arresters from Different Manufacturers** *Emilija Živanović et al.*
14:45-15:00	**Ascorbic Acid-Assisted Hydrothermal Growth of ZnO Films for Functional Semiconductor Applications** *Karina N. Enriquez Maruri et al.; presenting: Matejka Podlogar*	**Short Coffee break**	**Coffee break**
15:00-15:15	**Coffee break**	Workshop: **Design and Characterization of Low-Loss Integrated Photonic Components and Interfaces** *Andraž Debevc et al.*	Sensors and MEMS: **Fluidic platform for electrochemical detection of pesticides in water** *Nina Pugelj et al.*
15:15-15:30		**Robust Coupler Design for Efficient Heterogeneous Integration of Quantum Photonic Devices** *Miloš Ljubotina et al.*	
15:30-15:45	High School Student Session: **Development of an LCR meter** *David Vidergar et al.* **Designing a High-End PCB in Kicad** *Timotej Hercog et al.*	**Design of a Photonic Master for Nanoimprint Lithography of Perovskite Layer in Integrated Photonic Circuits** *Merisha Fernando et al.*	**Experimental Study of Cross-Regime Gas Transport Through Long Microcapillaries: Towards Reliable Predictive Models for MEMS** *Milica Pena et al.*
15:45-16:00	**Optimizing Exhaustive Search for the Game of Domineering** *Vid Furlan* **Transforming Python Code into a Single Line** *Aljaž Berginc et al.*	**Design of Silicon Nitride Integrated Photonic Components for In-House Photonic Platform Characterization** *Matej Poljanšek et al.*	**Label-free Hela Cells detection** *Vera Gradišnik*
16:00-16:15	**Research and construction of a hard beta and gamma sensitive Geiger counter** *Vid Horvat et al.*	**Design of Fabrication-Tolerant Multimode Interference Splitters in Silicon Nitride Photonic Integrated Circuits** *Egor Chebaniuk et al.*	**Thermal Optimization of a DNA Amplification in a Micro-PCR System** *Aljaž Zadravec et al.*
16:15-16:30	**Research and Development of a Smart Two-Stage Model Rocket** *Natan Jurca et al.*		**Nanostructuring of Boron-Doped Diamond for Electrochemical, Sensing, and Environmental Applications** *Marian Vojs et al.*
16:30-16:45	**Construction and Characterization of a Pirani Vacuum Gauge Based on an Incandescent Light Bulb** *Petra Leskovec et al.*		**Electrochemical Screen-Printed Electrode-Based Sensor For Ergosterol Detection As A Marker Of Potential Food Fungal Contamination** *Lucie Korecká et al.*
16:45-17:00	**Design and Development of a Thermal Evaporation System for Metal Thin Film Deposition** *Tibor Maček et al.*		**Practical Aspects in Electroanalysis with Screen-Printed Sensors with Boron-Doped Diamond Electrode** *Radovan Metelka et al.*
17:00-17:15	**Mastering the Curve: Hands-on Approach to Unreal Engine and VR Development** *Niko Maren et al.* **Design and Implementation of a 6-DOF Stewart Platform Motion Simulator for Racing Applications** *Jakob Slapar et al.*	**Ljubljana tour** **Meeting point: MIDEM Info point 16:35** **or Kongresni trg 12, in front of the University 17:00**	**Conference Closing**
17:15-18:00	**High School Student Poster Session**		
18:00-19:00	**Welcome party**		
19:00-19:30			
19:30-20:00		**Conference dinner** **Pod Vrbo** **Ziherlova ul. 36**	
20:00-22:00			

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Monday 28.9. CONFERENCE

08:30-09:00	**Registration**
09:00-09:15	**Conference Opening**
	Materials, Technology, and Devices-I *Chair: Slavko Bernik*
09:15-09:45	**INVITED** **Flexible composites for energy storage and harvesting: how material design and processing affect functional properties** *Giovanna Canu* National Research Council of Italy – Institute of Condensed Matter Chemistry and Technologies for Energy (CNR-ICMATE), via De Marini 6, 16149 Genova, Italy
09:45-10:00	**On the maximum in the piezoelectric response of the solid solution (1-x)$BiFeO_3$-x$BaTiO_3$** *Alberto Giribaldi[1,2], Tadej Rojac[2]* [1] Jožef Stefan International Postgraduate School, Jamova cesta 39, 1000 Ljubljana, Slovenia [2] Department of Electronic Ceramics, Jožef Stefan Institute, Jamova cesta 39, 1000 Ljubljana, Slovenia
10:00-10:15	**Utilization of Focused Ion Beam (FIB) for Cross-section and Transmission Electron Microscopy analyses of Semiconductors and Chips** *Nik Gračanin, Matejka Podlogar* Department for Nanostructured Materials, Jožef Stefan Institute, Ljubljana, Slovenia
10:15-10:30	**Multiscale analysis of a commercial and lab-fabricated SOFC** *Žiga Bertalanič[1,2], Kostja Makarovič[1], Blaž Perko[1], Duyen Nguyen[3], Annie Le Gal La Salle[3], Olivier Joubert[3], Barbara Malič[1,2], Andraž Bradeško[1]* [1] Electronic Ceramics Department, Jožef Stefan Institute, Ljubljana, Slovenia [2] Jožef Stefan International Postgraduate School, Ljubljana, Slovenia [3] Institut des Matériaux de Nantes Jean Rouxel, Université de Nantes, CNRS, Nantes, France
10:30-11:00	**Coffee break**
	Materials, Technology, and Devices-II *Chair: Slavko Bernik*
11:00-11:15	**From SEM-Induced Carbon Contamination to Nanostructure Growth and Near-Surface Transformations** *Ibrahim Hameli[1,2,3], Vasyl Shvalyal[2], Neelakandan M. Santhosh[2], Ardita Kurtishaj Hamzaj[1,2], Oleg Baranov[2,3], Uroš Cvelbar[1,2], Janez Zavašnik[1,2]* [1] Department of Gaseous Electronics (F6), Jožef Stefan Institute, Jamova cesta 39, SI-1000 Ljubljana,Slovenia [2] Jožef Stefan International Postgraduate School, Jamova cesta 39, SI-1000 Ljubljana, Slovenia [3] Department of Physics, University of Prishtina "Hasan Prishtina", George Bush 31, 10000 Prishtina, Kosovo
11:15-11:30	**Measured and simulated ion number density in low pressure argon RF plasma** *Filip Kos Maligoj[1], Rok Zaplotnik[2]* [1] Department of Surface Engineering, F4, Jozef Stefan Institute, Jamova 39, 1000 Ljubljana, Slovenia [2] Faculty of Mathematics and Physics, University of Ljubljana, Jadranska 19, 1000 Ljubljana, Slovenia
11:30-11:45	**PLASMA-SURFACE ENGINEERING OF Ti_2C MXENE FOR ENERGY STORAGE APPLICATIONS** *Laura Martinčič[1], Anjana Baby[1], Neelakandan M Santhosh[1], Uroš Cvelbar[1], Aleksander Zidanšek[2]* [1] Department of Gaseous Electronics (F6), Jožef Stefan Institute, Ljubljana, [2] Department of Condensed Matter Physics (F5), Jožef Stefan Institute, Ljubljana

11:45-12:00	**Coaxial Core-Shell Carbon/Tin Sulfide Nanohybrids for High-Performance and Durable Supercapacitor Electrodes** *Anjana Baby, Janez Zavasnik, Neelakandan M Santhosh* Department of Gaseous electronics (F6), Jožef Stefan Institute, Slovenia
12:00-12:15	**Localized Surface Plasmon Resonance Enhanced Laser Lithography on Highly Insulating Substrates** *Shafayet Yaseen[1,2], Damjan Vengust[1], Vasyl Shvalya[1], Uroš Cvelbar[1,2]* [1] Jozef Stefan Institute, Ljubljana, Slovenia [2] Jozef Stefan International Postgraduate School, Ljubljana, Slovenia
12:15-13:45	**Lunch break**
	Thin and Thick Films *Chair: Hana Uršič Nemevšek*
13:45-14:00	**0.7Pb($Fe_{0.5}Nb_{0.5}$)O_3–0.3$BiFeO_3$ thick films for energy storage applications** *Ivana Goričan[1,2], Andreja Benčan[1,2], Silvo Drnovšek[1], Antonio Iacomini[1], Nejc Suban[1,2], Brigita Kmet[1], Uroš Prah[1], Tadej Rojac[1,2], Hana Uršič[1,2]* [1] Electronic Ceramics Department, Jožef Stefan Institute, Ljubljana, Slovenia [2] Jožef Stefan International Postgraduate School, Ljubljana, Slovenia
14:00-14:15	**Optimization of Energy Storage Properties of Antiferroelectric Thick Films Through MLCC Architecture** *Thomas Fourgassie, Aadil Abass Shah, Žiga Bertalanič, Andraž Bradeško, Danjela Kuščer, Mojca Otoničar* Electronic Ceramics Department, Jožef Stefan Institute, Ljubljana, Slovenia
14:15-14:30	**Preparation of Pb($Sc_{0.5}Ta_{0.5}$)O_3 thick films by powder aerosol deposition** *Matteo d'Angelo[1], Victor Regis[1,2], Ivana Goričan[1,2], Hana Uršič[1,2]* [1] Electronic Ceramics Department, Jožef Stefan Institute, Jamova cesta 39, 1000 Ljubljana, Slovenia [2] Jožef Stefan International Postgraduate School, Jamova cesta 39, 1000 Ljubljana, Slovenia
14:30-14:45	**Fabrication of polyimide thick films via powder aerosol deposition** *Nejc Suban[1,2], Blaž Velkavrh[1,2], Matej Šadl[1], Andraž Bradeško[2], Victor Regis[1,2], Brigita Kmet[1], Ivana Goričan[1,2], Alaka Panda[1], Soukaina Merselmiz[1], Hana Uršič[1,2]* [1] Electronic Ceramics Department, Jožef Stefan Institute, Ljubljana, Slovenia [2] Jožef Stefan International Postgraduate School, Ljubljana, Slovenia
14:45-15:00	**Ascorbic Acid-Assisted Hydrothermal Growth of ZnO Films for Functional Semiconductor Applications** *Karina N. Enriquez Maruri[1,2], Klara Laura Cokan[1,2], Tina Radošević[1], Matejka Podlogar[1]* [1] Department for Nanostructured Materials, Jožef Stefan Institute, Jamova cesta 39, 1000 Ljubljana, Slovenia [2] Jožef Stefan International Postgraduate School, Jamova cesta 39, 1000 Ljubljana, Slovenia
15:00-15:30	**Coffee break**

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15:30-17:15	**High School Student Session** *Chair: Matija Pirc* **Development of an LCR meter** *David Vidergar, David Zindović, Aleš Volčini* The Upper Secondary School of Electrical and Computer Engineering **Designing a High-End PCB in Kicad** *Timotej Hercog, Aleš Volčini* The Upper Secondary School of Electrical and Computer Engineering **Optimizing Exhaustive Search for the Game of Domineering** *Vid Furlan* The Upper Secondary School of Electrical and Computer Engineering **Transforming Python Code into a Single Line** *Aljaž Berginc, Matic Podpadec, Aleš Volčini* The Upper Secondary School of Electrical and Computer Engineering **Research and construction of a hard beta and gamma sensitive Geiger counter** *Vid Horvat, Aleš Volčini, Rasto Snoj, Urban Pompe* The Upper Secondary School of Electrical and Computer Engineering **Research and Development of a Smart Two-Stage Model Rocket** *Natan Jurca, Iztok Merljak, Rasto Snoj, Aleš Volčini* The Upper Secondary School of Electrical and Computer Engineering **Construction and Characterization of a Pirani Vacuum Gauge Based on an Incandescent Light Bulb** *Petra Leskovec[1,2], Matic Jakšič[2,3], Tomaž Jeromen[2,3], Bor Kokovnik[2], Luka Pogačnik* [1] Gimnazija Bežigrad, Ljubljana, Slovenia [2] Zavod 404, Ljubljana, Slovenia [3] Gimnazija Ledina, Ljubljana, Slovenia **Design and Development of a Thermal Evaporation System for Metal Thin Film Deposition** *Tibor Maček[1,2], Matic Strgar[1,2], Lenart Percl Antolič[1,2], Bor Kokovnik[2], Luka Pogačnik[2]* [1] Gimnazija Vič, Ljubljana, Slovenia [2] Zavod 404, Ljubljana, Slovenia **Mastering the Curve: Hands-on Approach to Unreal Engine and VR Development** *Niko Maren, Tilen Šimenc, Aleš Volčini* The Upper Secondary School of Electrical and Computer Engineering **Design and Implementation of a 6-DOF Stewart Platform Motion Simulator for Racing Applications** *Jakob Slapar, David Zindović, Aleš Volčini* The Upper Secondary School of Electrical and Computer Engineering
17:15-18:00	**High School Student Poster Session**
18:00-20:00	**Welcome party**

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Tuesday 29.9. WORKSHOP on Integrated Photonics

08:30-09:00	**Registration**
09:00-09:15	**Workshop Opening**
09:15-10:00	**Workshop** *Chair: Janez Krč* **PLENARY** **Silicon photonics:** **emerging trends, opportunities and challenges** *Roel Baets* Photonics Research Group, Department of Information Technology (INTEC), Ghent University and imec, Ghent, Belgium
10:00-10:30	**INVITED** **Photonic Integrated Circuits for Signal Processing and Computing** *Andrea Melloni* Department of Electronics, Information and Bioengineering, Politecnico di Milano, 20133 Milano, Italy
10:30-11:00	**Coffee break**
11:00-11:30	**Workshop** *Chair: Andraž Debevc* **INVITED** **Photonic Integrated Circuits: From Sensing and Telecommunication to Quantum Applications** *Borislav Hinkov* Integrated Photonics Technologies, Silicon Austria Labs, Villach, Austria
11:30-12:00	**INVITED** **Electro-optic modulators and frequency combs in thin-film lithium niobate** *Urban Senica* Laboratory for Nanoscale Optics, John A. Paulson School of Engineering and Applied Sciences, Harvard University, Cambridge MA, USA
12:00-12:15	**Group photo**
12:15-13:45	**Lunch break**
13:45-14:15	**Workshop** *Chair: Andraž Debevc* **INVITED** **Quantum Photonic Integrated Circuits with Self-Assembled Quantum Dots** *Leonardo Midolo* Niels Bohr Institute, University of Copenhagen, Denmark.
14:15-14:45	**INVITED** **Microscale generation and control of nanosecond light by light in liquid crystals** *Igor Muševič[1,2]* [1] Condensed Matter Physics Department, J. Stefan Institute; Jamova 39, 1000 Ljubljana, Slovenia [2] Faculty of Mathematics and Physics, University of Ljubljana; Jadranska 19, 1000 Ljubljana, Slovenia
14:45-15:00	**Short Coffee break**

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	Workshop *Chair: Janez Krč*
15:00-15:15	**Design and Characterization of Low-Loss Integrated Photonic Components and Interfaces** *Andraž Debevc, Miloš Ljubotina, Merisha Fernando, Matej Poljanšek, Marko Topič, Janez Krč* University of Ljubljana, Faculty of Electrical Engineering, Ljubljana, Slovenia
15:15-15:30	**Robust Coupler Design for Efficient Heterogeneous Integration of Quantum Photonic Devices** *Miloš Ljubotina[1], Jasper De Witte[2,3], Zhe Liu[4,5], Andraž Debevc[1], Leonardo Midolo[4], Gunther Roelkens[2,3], Bart Kuyken[2,3], Dries Van Thourhout[2,3], Marko Topič[1], Janez Krč[1]* [1] Faculty of Electrical Engineering, University of Ljubljana, Tržaška cesta 25, 1000 Ljubljana, Slovenia [2] Photonics Research Group, Ghent University - imec, Technologiepark-Zwijnaarde 126, 9052 Ghent, Belgium [3] Center for Nano- and Biophotonics (NB-Photonics), Ghent University, Technologiepark Zwijnaarde 15, 9052 Ghent, Belgium [4] Center for Hybrid Quantum Networks, Niels Bohr Institute, University of Copenhagen, Blegdamsvej 17, 2100 Copenhagen, Denmark [5] Sparrow Quantum ApS, Nordre Fasanvej 215, 2000 Frederiksberg, Denmark
15:30-15:45	**Design of a Photonic Master for Nanoimprint Lithography of Perovskite Layer in Integrated Photonic Circuits** *Merisha Fernando, Andraž Debevc, Miloš Ljubotina, Marko Topič, Janez Krč.* University of Ljubljana, Faculty of Electrical Engineering, Tržaška 25, 1000 Ljubljana, Slovenia.
15:45-16:00	**Design of Silicon Nitride Integrated Photonic Components for In-House Photonic Platform Characterization** *Matej Poljanšek, Andraž Debevc, Miloš Ljubotina, Merisha Fernando, Marko Topič, Janez Krč* University of Ljubljana, Faculty of electrical engineering, Tržaška 25, 1000 Ljubljana, Slovenia
16:00-16:15	**Design of Fabrication-Tolerant Multimode Interference Splitters in Silicon Nitride Photonic Integrated Circuits** *Egor Chebaniuk, Matej Poljanšek, Andraž Debevc* Faculty of Electrical Engineering, University of Ljubljana, Ljubljana, Slovenia
17:00-19:00	**Ljubljana tour** **Meeting point: MIDEM Info point 16:35** **or Kongresni trg 12, in front of the University 17:00**
19:30-22:00	**Conference dinner** **Pod Vrbo** **Ziherlova ul. 36**

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Wednesday 30.9. CONFERENCE

08:30-09:00	**Registration**
	Optoelectronics *Chair: Marko Topič*
09:00-09:15	**Interplay of Corrugation Geometry and Dipole Orientation on Light Extraction in Organic and Perovskite LEDs** *Milan Kovačič, Janez Krč, Marko Topič* Faculty of Electrical Engineering, University of Ljubljana, Ljubljana, Slovenia
09:15-09:30	**Laser-scribed interconnections: from perovskite solar cells to mini-modules** *Shivam Nauriyal, Marko Topič, Marko Jošt* Faculty of Electrical Engineering, University of Ljubljana, Tržaška 25, 1000 Ljubljana, Slovenia
09:30-09:45	**Integration of Temperature and Humidity Sensors into Encapsulated Perovskite Solar Cells** *Arslan Ali, Marko Jošt, Kristijan Brecl, Marko Topič, Marko Jankovec* Faculty of Electrical Engineering, University of Ljubljana, Tržaška 25,1000 Ljubljana, Slovenia
09:45-10:00	**Power Management of Bluetooth Wireless Irradiance Sensors** *Sašo Domadenik, Marko Jankovec, Marko Topič* Laboratory of Photovoltaics and Optoelectronics, University of Ljubljana, Faculty of Electrical
10:00-10:15	**Fast Bidirectional IV Curve Acquisition of High-efficiency PV Modules** *Jaša Vid Meh Peer, Marko Topič, Marko Jankovec* Laboratory of Photovoltaics and Optoelectronics,
10:15-10:30	**Electrical modelling of High Efficiency PV modules using Spice** *Jonas Aleksander Oražem[1,2], Marko Topič[1], Marko Jankovec[1]* [1] Faculty of Electrical Engineering, University of Ljubljana, Tržaška cesta 25, 1000 Ljubljana, Slovenia [2] Metrel d.o.o., Ljubljanska cesta 77, 1354 Horjul, Slovenia
10:30-10:45	**Compositional Design of Wide-Bandgap Perovskites for Efficient and Stable Tandem Photovoltaics** *Fernando Solorio, Marko Topič, Marko Jošt* Faculty of Electrical Engineering, University of Ljubljana,
10:45-11:15	**Coffee break**
	Integrated Circuits and Electronics-I *Chair: Andrej Žemva*
11:15-11:30	**A Switched-Capacitor Auto-Zeroing Ripple Reduction Loop for a Low-Noise Chopper Charge Amplifier used in an Artificial Nose detection system** *Ajda Tuševski, Drago Strle* University of Ljubljana, Department of Electrical Engineering,, Tržaška 25, 1000 Ljubliana, Sloveni
11:30-11:45	**Transient Noise Simulation in VACASK** *Árpád Bűrmen* Faculty of Electrical Engineering, University of Ljubljana, Tržaška cesta 25, Ljubljana, Slovenia
11:45-12:00	**A Grammatical-Evolution-Based Front-End for Automated EEC Initialization in EIS** *M. Žic[1], M. Kunaver[2], A. Bürmen[2], T. Tuma[2]* [1] Ruđer Bošković Institute, Zagreb, Croatia [2] Faculty of Electrical Engineering, University of Ljubljana, Slovenia
12:00-12:15	**A Single-Microcontroller Control System for Throttleable Rocket Engines** *Leon Ulčakar[1,2], Andrej Žemva[1]* [1] Faculty of Electrical Engineering, University of Ljubljana, 1000 Ljubljana, Slovenia [2] Noordung Labs, 1000 Ljubljana, Slovenia
12:15-13:45	**Lunch break**

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	Integrated Circuits and Electronics-II *Chair: Andrej Žemva*
13:45-14:00	**Device for Testing and Development of an Electric Vehicle Charging Station** *Jani Zrnec, Andrej Žemva* Faculty of Electrical Engineering, University of Ljubljana, Ljubljana, Slovenia
14:00-14:15	**Reliability Challenges of Commercial Power p-Channel VDMOS Under NBT Stress** *Danijel Danković, Emilija Živanović, Lana Tasić, Dunja Đorđević, Miloš Marjanović, Sandra Veljković, Nikola Mitrović, Vojkan Davidović, Goran Ristić* Faculty of Electronic Engineering, University of Niš, Serbia, Aleksandra Medvedeva 4, 18000 Niš, Serbia
14:15-14:30	**Impact of Prior NBT Stress on the Self-Heating Behavior of Power P- and N-Channel VDMOS Transistors** *Sandra Veljković, Nikola Mitrović, Emilija Živanović, Miloš Marjanović, Lana Tasić, Dunja Đorđević, Vojkan Davidović, Goran Ristić, Danijel Danković* Department of Microelectronics, Faculty of Electronic Engineering, University of Niš, Niš, Serbia
14:30-14:45	**Impact of Gamma Radiation on Breakdown Voltage Stability and Reliability of Gas-Filled Surge Arresters from Different Manufacturers** *Emilija Živanović, Sandra Veljković* Department of Microelectronics, Faculty of Electronics Engineering, University of Niš, Niš, Serbia
14:45-15:15	**Coffee break**
	Sensors and MEMS *Chair: Matej Možek*
15:15-15:30	**Fluidic platform for electrochemical detection of pesticides in water** *Nina Pugelj[1,2], Andraž Bradeško[1,2], Izabela Čurković[1], Darko Belavič[1], Danjela Kuščer[1,2]* [1] Electronic Ceramics Department, Jožef Stefan Institute, Ljubljana, Slovenia [2] Jožef Stefan Postgraduate School, Ljubljana, Slovenia
15:30-15:45	**Experimental Study of Cross-Regime Gas Transport Through Long Microcapillaries: Towards Reliable Predictive Models for MEMS** *Milica Pena[1,2], Ardita Kurtishaj Hamzaj[1,2], Marko Žumer[1], Oleg Baranov[1], Vincenc Nemanič[1], Uroš Cvelbar[1,2]* [1] Institute Jožef Stefan, Department of Gaseous electronics F6, Ljubljana, Slovenia [2] Jožef Stefan Postgraduate School, Ljubljana, Slovenia
15:45-16:00	**Label-free Hela Cells detection** *Vera Gradišnik[1,2]* [1] Department of Automation and Electronics, University of Rijeka, Faculty of Engineering, Rijeka, Croatia [2] Center for Micro- and Nonosciences and Technologies, Rijeka, Croatia
16:00-16:15	**Thermal Optimization of a DNA Amplification in a Micro-PCR System** *Aljaž Zadravec, Borut Pečar, Danilo Vrtačnik, Matej Možek* Laboratory of Microsensor Structures and Electronics (LMSE), Faculty of electrical engineering, University of

16:15-16:30	**Nanostructuring of Boron-Doped Diamond for Electrochemical, Sensing, and Environmental Applications** *Marian Vojs[1], Marián Marton[1], Pavol Michniak[1], Miroslav Behúl[1], Michal Pifko[1], Andrea Vojs Staňová[2,3]* [1] Institute of Electronics and Photonics, Faculty of Electrical Engineering and Information Technology, Slovak University of Technology in Bratislava, Ilkovičova 3, 841 04 Bratislava, Slovak Republic [2] Comenius University in Bratislava, Faculty of Natural Sciences, Department of Analytical Chemistry, Ilkovičova 6, SK-842 15 Bratislava, Slovak Republic [3] University of South Bohemia in České Budějovice, Faculty of Fisheries and Protection of Waters, South Bohemian Research Center of Aquaculture and Biodiversity of Hydrocenoses, Zátiší 728/II, CZ-389 25 Vodňany, Czech Republic
16:30-16:45	**Electrochemical Screen-Printed Electrode-Based Sensor For Ergosterol Detection As A Marker Of Potential Food Fungal Contamination** *Lucie Korecká[1], Dominik Novák[1], Iveta Brožková[1], Marian Vojs[3], Radovan Metelka[2]* [1] Department of Biological and Biochemical Sciences, Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic [3] Institute of Electronics and Photonics, Faculty of Electrical Engineering and Information Technology, Slovak University of Technology in Bratislava, Bratislava, Slovak Republic [2] Department of Analytical Chemistry, Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic
16:45-17:00	**Practical Aspects in Electroanalysis with Screen-Printed Sensors with Boron-Doped Diamond Electrode** *Radovan Metelka[1], Martina Svitáková[1], Monika Bínová[1], Jelena Ostojić[2], Dalibor Stanković[2]* [1] Department of Analytical Chemistry, Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic [2] Faculty of Chemistry, University of Belgrade, Belgrade, Serbia
17:00-17:15	**Conference Closing**