

54th International Conference on Microelectronics, Devices and Materials with the Workshop on Sensors and Transducers

October 3rd – 5th, 2018, Jožef Stefan Institute, Ljubljana

time	Wednesday 3-10-2018 CONFERENCE	Thursday 4-10-2018 WORKSHOP	Friday 5-10-2018 CONFERENCE
8:00- 8:45	Registration	Registration	Registration
8:45 - 9:00	Opening ceremony	Opening ceremony for workshop	Invited lecture
9.00 - 9:15	SRIP presentation	WI1: Sebastjan Glinsek, Aymen Mahjoub, Stéphanie Girod, Nicolas Godardand Emmanuel Defay <i>Processing challenges for fabrication of transparent piezoelectric thin-film transducers</i>	James Sites <i>Solar cells with bilayer CdTeSe/CdTe absorbers</i>
9:15 - 9:30	Plenary lecture		OPTO 1: Jošt Balent, Janez Krč and Marko Topič <i>Study of the influence of defects in doped thin-film layers in silicon heterjunction solar cells by using electrical simulations</i>
9:30 - 9:45	Dragan Damjanovic <i>Electro-mechanical coupling and its application in actuators, sensors and transducers</i>	WI2: Jaroslav Kita <i>Multilayer technologies and new deposition techniques in sensors and transducers application</i>	OPTO 2: Jan Slapšak, Marko Topič, Marko Jankovec <i>Wireless system for moisture and temperature measurement within photovoltaic modules</i>
9:45 - 10:00			OPTO 3: A. Debevc, J. Krč and M. Topič <i>Simulation of optical waveguides in silicon photonic integrated circuits</i>
10:00 - 10:15	MTD 1: Mojca Otoničar, A. Bradeško, H. Uršič, A. Benčan, B. Malič, T. Rojac <i>Contributions to piezoelectric response of Pb(Mg_{1/3}Nb_{2/3})O₃-xPbTiO₃ ceramics</i>	WI3: Guorong Li <i>Electric Induced Strain and Its Temperature Dependence Properties of Pb(Mg_{0.5}W_{0.5})O₃-Pb(Zr,Ti)O₃ Ceramics Actuator</i>	OPTO 4: Stefan Mitterhofer, Marko Jankovec, Marko Topič <i>One- and two-dimensional finite element analysis of humidity ingress in polymeric materials</i>
10:15 - 10:30	MTD 2: Slavko Bernik, Nina Daneu, Ismail Özgür Özer <i>Processing of transparent MgAl₂O₄ ceramics using spark plasma sintering</i>		OPTO 5: M. Kikelj, F. Smole <i>Orthodox Theory Monte-Carlo Simulation of Single-Electron Logic Circuits</i>
10:30 - 10:45	Coffee break	Coffee break	Coffee break
10:45 - 11:00			

11:00 - 11:15	MTD 3: Uros Prah, Magdalena Wencka, Tadej Rojac, Andraž Bradeško, Zdravko Kutnjak, Barbara Malič, Hana Uršič <i>Multicaloric properties of Pb(Fe_{0.5}Nb_{0.5})O₃-based ceramics</i>	WI4: Franck LEVASSORT, Dominique CERTON, Jean-Marc GREGOIRE, Frédéric OSSANT, Marc LETHIECQ <i>Ultrasonic transducers for high frequency biomedical imaging: materials, technologies and applications</i>	OPTO 6: Dejan Hrovatin, Andrej Žemva <i>Increasing the flying time of unmanned aerial vehicle with solar panels</i>
11:15 - 11:30	MTD 4: Maja Makarovič and Tadej Rojac <i>Effect of cobalt doping on electrical conductivity and electromechanical behaviour of BiFeO₃ ceramics</i>		EL 1: Nejc Kokalj, Anton Biasizzo, Gregor Papa <i>Mobile monitoring of a Bluetooth Low Energy wireless sensor network</i>
11:30 - 11:45	TTF 1: Xiang Yang Kong , <i>Atomic layer deposition for photovoltaics: applications and prospects</i>	WI5: Marko Budimir <i>Prototyping of ultrasound and eddy current transducers: examples in aeronautics and nuclear power plants non-destructive examinations and ophthalmology and dermatology diagnostics</i>	EL 2: Miloš Ljubotina, Anton Biasizzo <i>Implementation of a systolic array for matrix multiplication on an FPGA device</i>
11:45 - 12:00	TTF 2: Aleksander Matavž, A. Bradeško, T. Rojac, B. Malič, V. Bobnar <i>Synthesis and piezoelectric properties of Pb(Zr,Ti)O₃ thin films with engineered porosity</i>		Closing ceremony
12:00 - 12:15	TTF 3: Hugo Mercier, Barbara Malič, Hana Uršič, Thien Hoang, Maxime Bavencoffe, Franck Levassort, Danjela Kuščer <i>Electromechanical performances of sodium-potassium niobate-based thick films for energy harvesting applications</i>	WI6: Goran Stojanovič <i>Design, fabrication and characterization of various sensors on foils and papers</i>	
12:15 - 12:30	TTF 4: Tanja Vrabelj, Aleksander Matavž, Vid Bobnar, Barbara Malič <i>Microstructure and electrical properties of (1-x)NaNbO₃-xCaZrO₃ (x=0-0.10) thin films prepared by chemical solution deposition</i>		
12:30 - 12:45	Lunch break	Lunch break	
12:45 - 13:00			
13:00 - 13:15			
13:15 - 13:30			
13:30 - 13:45			
13:45 - 14:00			
14:00 - 14:30			
14:30 - 14:45	ICSOC 1: Damjan Berčan, Aleksander Sešek, Janez Trontelj <i>Advanced four phase Hall spinning current modulation</i>	WR1 - Aswathy Vasudevan, Neelakandan Marath Santhosh, Andrea Jurov, Anja Drame, Uroš Cvelbar <i>Fabrication of hydrogenated graphene nanosheets for alcohol detection</i>	
14:45 - 15:00	ICSIC 2: Tadej Skuber, Peter Zajec, Aleksander Sešek, Janez Trontelj <i>Motor driver power stage simulation</i>	WR2 - Neelakandan Marath Santhosh, Aswathy Vasudevan, Andrea Jurov, Anja Drame, Uroš Cvelbar <i>Single step synthesis of vertically aligned carbon nanowalls for gas sensing application</i>	
15:00 - 15:15	ICSOC 3: Olga Chambers, Aleksander Seseč, Jurij F. Tasič, Janez Trontelj <i>Soil characterization using an electrical impedance method</i>	WR3 - Špela Trafela, Anja Drame, Sašo Šturm and Kristina Žužek Rožman <i>KOH-modified nickel nanowires as efficient catalysts for electro-oxidation of formaldehyde for sensing applications</i>	
15:15 - 15:30	ICSOC 4: Miha Gradišek, Drago Strle <i>Digitally adjustable differential gain stage</i>	WR4 - Anja Drame, Špela Trafela, Sašo Šturm, Kristina Žužek Rožman <i>Electrochemical sensor for acrylamide detection</i>	
15:30 - 15:45	ICSOC 5: Rok Ražman, Anton Pleteršek, Jurij Tasič, Janez Trontelj <i>Bioimpedance spectroscopy device for noninvasive human skin characterization</i>	WR5 - Matej Šadl, Andraž Bradeško, Darko Belavič, Andreja Benčan, Barbara Malič and Tadej Rojac <i>Ceramic resonant pressure sensor with an integrated piezoelectric bismuth ferrite and its functionality at elevated temperatures</i>	
15:45 - 16:00	ICSOC 6: Luka Rupar, Janez Trontelj <i>Measuring of water drops</i>	WR6 - Nikola Buncič, Marko Budimir, Anton Kabaši, Tonči Čakarič, Ante Bilušić <i>Prototyping of a high frequency phased array ultrasound transducer on a piezoelectric thick film</i>	

16:00 - 16:15	coffee break	coffee break		
16:15 - 16:30				
16:30 - 16:45	MEMS 1: D. Resnik, B. Pečar, M. Možek, U. Aljančič and D. Vrtačnik <i>Analyses of micropump performances under rigorous operating conditions</i>	WI7: Simon Pevec, Denis Donlagic <i>Multiparameter miniature fiber-optic sensor: design and signal interrogation</i>		
16:45 - 17:00	MEMS 2: Nina Lokar, Veno Kononenko, Damjana Drobne, Danilo Vrtačnik <i>Electrochemical acetylcholinesterase biosensor for eserine detection</i>			
17:00 - 17:15	MEMS 3: Zhenyong Man, Jiangtao Zeng, Liaoying Zheng, Guorong Li <i>Computer Simulations of Size effects of BaTiO₃ Ferroelectric Thin Films</i>	WI8: Griša Močnik, Luka Drinovec, Grega Razoršek, Primož Vidmar, and Matevž Lenarčič <i>Measurements of aerosol absorption during global circumnavigation and arctic ultra-light aircraft campaigns</i>		
17:15 - 17:30	POSTERS			
17:30 - 17:45				
17:45 - 18:00				
18:00 - 18:15	Welcome party			
18:15 - 18:30				
18:30 - 18:45				
18:45 - 19:00				
19:00 --			Conference dinner	