



22<sup>nd</sup> International Symposium on  
POWER ELECTRONICS Ee 2023

# PROGRAM



Novi Sad &  
Belgrade,  
Serbia

October  
25<sup>th</sup> - 28<sup>th</sup>, 2023

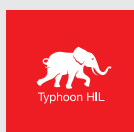
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# 22<sup>nd</sup> International Symposium on POWER ELECTRONICS Ee 2023



**Wednesday, 25 Oct. 2023.  
NOVI SAD**

Time	Paper Id	Session	Paper title / Author: Family name	Author: Given name	Affiliation	State / Venue
Wednesday, 25 Oct. 2023.						
Venue: Novi Sad, Science and Technology Park (STP), Fruškogorska 1, Novi Sad						
09:45 - 10:00h			OPENING OF THE TUTORIALS			Science and Technology Park (STP) - Hall 2
		Chair:	Prof. Vladimir Katić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
09:45h			Opening speech, Prof. Vladimir Katić, Univ. of Novi Sad & President of the Power Electronics Soc. of Serbia, Novi Sad, Serbia			
10:00 - 13:00h	TT-2:		Tutorial 2 (Coffee Break at 11:30h)			Science and Technology Park (STP) - Hall 2
		Chair:	Barbara Vujkov, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
			Regina Ramos Universidad Politecnica de Madrid, Center for Industrial Electronics Madrid, Spain "Overview of Wireless Power Transfer Systems and Their Control and Application in Implantable Medical Devices"			
10:00 - 13:00h	TT-3:		Tutorial 3 (Coffee Break at 11:30h)			STP - Hall 3
		Chair:	Ivana Isakov, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
			Alecksey Anuchin Moscow Power Engineering Institute, Department of Automated Electric Drive, Moscow, Russian Federation "Modern Methods for Precise Speed Measurement in Electric Drives"			
13:00h - 14:00h			LUNCH BREAK			
14:00			OPENING OF THE STUDENTS COMPETITION "Control in Power-CinP 2023"			STP - Hall 2
		Chair	Assoc. Prof. Stevan Grabić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
		Co-chair	Assist. Prof. Ivan Todorović, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
14:00		CinP	Opening speech and the competition guidelines, Assoc. Prof. Stevan Grabić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
14:15 - 18:00h		CinP	Student competition, "Control in Power – CinP 2023"			STP Laboratories



**Thursday, 26 Oct. 2023.  
BELGRADE**

Venue: Belgrade, Serbian Academy of Sciences and Arts (SASA), Knez Mihajlova 35, Belgrade						
07:30h	Departure from Novi Sad to Belgrade (bus)			Place of departure: Street Dr Sime Milosevica 16 (in front of the Faculty for Economics)		
09:30h	BELGRADE Registration desk opens					
10:00h	PLENARY Session	OPENING OF THE CONFERENCE				Serbian Academy of Sciences and Arts - Ceremonial Hall
	Chair:	Prof. Vladimir Katić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia				
	Co-chair:	Prof. Dushan Boroyevich, Virginia Polytechnic Institute and State University, Blacksburg, United States				
	Co-chair:	Academician Prof. Slobodan Vukosavić, University of Belgrade/Serbian Academy of Sciences and Arts, Belgrade, Serbia				
	IP0.1	Opening speech, Prof. Vladimir Katić, "50 years of the Ee symposium (1973-2023)", Univ. of Novi Sad & President of the Power Electronics Soc. of Serbia, Novi Sad, Serbia Welcome speech, Academician Prof. Zoran Popović, Vice president of the Serbian Academy of Sciences and Arts, Belgrade, Serbia Welcome speech, Academician Prof. Slobodan Vukosavić, President of the Department of Technical Sciences SASA, Belgrade, Serbia Welcome speech, Prof. Dr. Boris Dumnić, Acting dean of the Faculty of Technical Sciences of the University of Novi Sad, Novi Sad, Serbia Welcome speech, Dr. Dragan Kovačević, Director of the Electrical Engineering Institute “Nikola Tesla”, Belgrade, Serbia Welcome speech and official opening of the Ee2023, Dr. Jelena Begović, Minister, Ministry of Science, Technological Development and Innovation, Belgrade, Serbia Dr. Žarko Janda, "History and Significance of the Ee Symposiums", Electrical Engineering Institute “Nikola Tesla”, Belgrade, Serbia Prof. Vladimir Katić, Awarding of Jubilee Charts Welcome speech of the representative of the main supporting company, TBD, ZF Serbia, Pančevo, Serbia Prof. Vladimir Katić, A Brief Overview of the Ee 2023 Program				
10:45h	PLENARY Session - KN1	KEY-NOTE PAPERS				Serbian Academy of Sciences and Arts - Ceremonial Hall
	Chair:	Prof. Dushan Boroyevich, Virginia Polytechnic Institute and State University, Blacksburg, United States				
	Co-chair:	Academician Prof. Slobodan Vukosavić, University of Belgrade/Serbian Academy of Sciences and Arts, Belgrade, Serbia				
10:45h	KN1.1	Power Semiconductor Development Trend - Challenges in Automotive and Railway Applications - Lorenz				

# Thursday, 26 Oct. 2023. NOVI SAD



Venue: Novi Sad, Science and Technology Park (STP), Fruškogorska 1, Novi Sad				
09:00h		NOVI SAD Registration desk opens		
10:00 - 17:30h		STUDENTS DAY (open for visits of university and high-school students)		
10:00h		OPENING OF THE EXHIBITION		STP - Entrance Hall
	Chair:	Assoc. Prof. Stevan Cvetičanin, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia		
	Co-chair:	Assoc. Prof. Nikola Vukajlović, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia		
10:00h		Opening speech, Assoc. Prof. Stevan Cvetičanin, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia		
10:00 - 17:30h		Exhibition in the hall		
09:00 - 16:00h		CinP-2023 Students competition (1st round – cont.)		STP Laboratories
12:00 - 13:30h	IS1	Industry session: Supporting companies' presentations		STP - Hall 4
	Chair:	Assoc. Prof. Stevan Cvetičanin, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia		
	Co-chair:	Assoc. Prof. Nikola Vukajlović, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia		
12:00h	IS1.1	The Future of E-Mobility with ZF		
		Ines Vojvodić Jovanović and Miloš Kukić	ZF Serbia, Pančevo	Serbia
12:30h	IS1.2	The elephant in the room		
		Andrija Gerić	Typhoon Hil, Inc., Novi Sad	Serbia
12:50h	IS1.3	How to start your career in automotive industry		
		Nikačević Milica and Zelenović Igor	Brose d.o.o., Pančevo	Serbia
13:10h	IS1.4	Infineon/IPCEI Presentation		
		Goran Mišković , Christina Wariwoda	Infineon Technologies Austria AG	Austria
13:30h - 13:50h		Coffee Break		
13:50 - 16:00h	IS2	Industry session (cont.): Supporting companies'		STP - Hall 4
	Chair:	Assoc. Prof. Stevan Cvetičanin, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia		
	Co-chair:	Assoc. Prof. Nikola Vukajlović, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia		
13:50h	IS2.1	The Bosch Group in Serbia		
		Erdeljan Zorka, Mijatović Milena and Nađa Dražović	Bosch	Serbia
14:10h	IS2.2	Contributing to the mobility for more than 6 years		
		Tasevski Jovica	Continental, Novi Sad	Serbia
14:20h	IS2.3	Renewable sources of energy in MIND Park		
		Đorić Darko	Mind Park, Kragujevac	Serbia
14:30h	IS2.4	Green Hydrogen and charging technology		
		Prole Nemanja	Origincharging technology and Nova Zona Pančevo	Serbia
14:40h	IS2.5	Electrical Institute Nikola Tesla Presentation		
		Dragana Naumović Vuković	University of Belgrade, Electrical Institute Nikola Tesla	Serbia
14:50h	IS2.6	Department of power, electronic and telecommunication engineering Presentation		
		Nataša Samardžić	University of Novi Sad, Faculty of Technical Sciences	Serbia
15:00h	IEEE	IEEE Membership development presentation (TBD)		STP - Hall 5
16:00h		CinP-2023 Competition (final round): CinP 2023:	FINALE	STP - Hall 4
18:00h		Welcome reception, Museum of beekeeping and wine cellar of the Zivanović family, Sr. Karlovci		

# Friday, 27 Oct. 2023. NOVI SAD



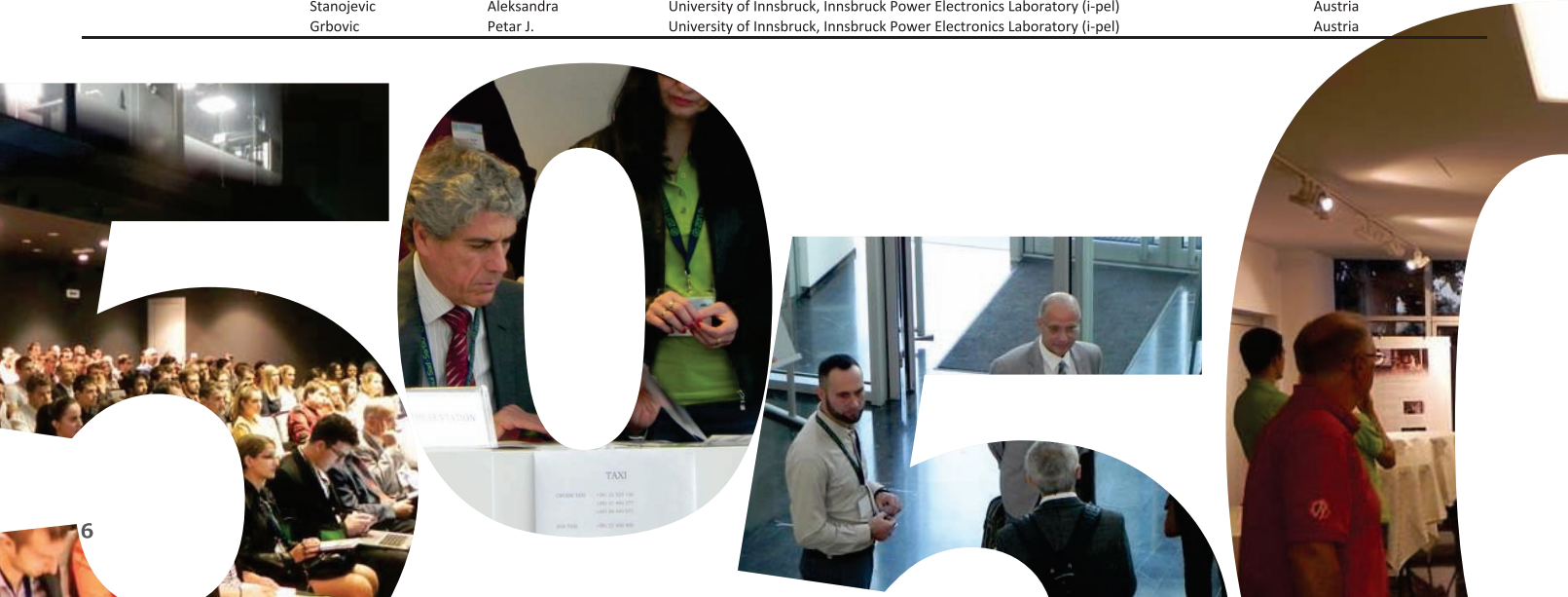
Venue: Novi Sad, Science and Technology Park (STP)					
08:30h	SESSION -T1.1		Power Converters and devices		STP - Hall 2
	Chair:		Dr. Željko Despotović, University of Belgrade, Mihailo Pupin Institute, Belgrade, Serbia		
	Co-chair:		Dr. Darko Vračar, BRUSA Elektronik, Munchen, Germany		
08:30h	01538	T1.1-1	Study of the application of wide-band transistors in inverter arc welders		
		Dankov	Dobroslav	Technical University of Gabrovo	Bulgaria
		Marinov	Petko	Technical University of Gabrovo	Bulgaria
		Prodanov	Prodan	Technical University of Gabrovo	Bulgaria
08:45h	06438	T1.1-2	Autonomously Modulating Gate Drivers For Triangular-Current Mode (TCM) Zero-Voltage Switching (ZVS) Buck Converter		
		Abbas	Khizra	KTH Royal Institute of Technology	Sweden
		Nee	Hans-Peter	KTH Royal Institute of Technology	Sweden
		Kostov	Konstantin	RISE Research Institutes of Sweden	Sweden
09:00h	00138	T1.1-3	Active-Clamped Flyback Converter: Dynamic Load and Cross-Regulation Aspects		
		Vračar	Darko	BRUSA Elektronik (München) GmbH	Germany
09:15h	00638	T1.1-4	Digital control challenges in a single-phase CCM totem-pole PFC rectifier with GaN devices		
		Stanić	Luka	University of Belgrade, School of Electrical Engineering	Serbia
		Despotović	Željko V.	University of Belgrade, Institute Mihjalo Pupin	Serbia
		Pajnić	Milan	Research Division Power Electronics, Silicon Austria Labs (SAL)	Austria
		Skender	Miodrag	IRITEL Institute, Department of Power Electronics	Serbia
09:30h	00738	T1.1-5	A Realization of Synchronous Buck Power Converter for Energy Harvesting from Vibrations		
		Despotovic	Zeljko V.	University of Belgrade, Mihajlo Pupin Institue	Serbia
		Vijatovic Petrovic	Mirjana	University of Belgrade, Institute for Multidisciplinary Research-Department of Materials Science	Serbia
		Bobic	Jelena	University of Belgrade, Institute for Multidisciplinary Research-Department of Materials Science	Serbia
09:45h	01938	T1.1-6	Design of a Modular Multilevel Converter with 400 kWh of Integrated Batteries		
		Katzenburg	Niklas	Karlsruhe Institute of Technology	Germany
		Kuhlmann	Kai	Aschaffenburg University of Applied Sciences	Germany
		Leister	Lars	Karlsruhe Institute of Technology	Germany
		Stefanski	Lukas	Karlsruhe Institute of Technology	Germany
		Teigelkötter	Johannes	Aschaffenburg University of Applied Sciences	Germany
		Hiller	Marc	Karlsruhe Institute of Technology	Germany
08:30h	SESSION -T3.1		Electrical Machines		STP - Hall 3
	Chair:		Prof. Slobodan Lubura, University of East Sarajevo, Faculty of Electrical Engineering, East Sarajevo, Bosnia and Herzegovina		
	Co-chair:		Assoc. Prof. Dejan Jerkan, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia		
08:30h	03038	T3.1-1	ALA-rotor RSG 10MW, 480rpm-preliminary design with 2Dkey FEM validations		
		Boldea	Ion	University Politehnica Timisoara	Romania
		Torac	Ileana	Romanian Academy Timisoara Branch	Romania
		Tutelea	Lucian	University Politehnica Timisoara	Romania
08:45h	05938	T3.1-2	Experimental determination of equivalent parameters of the cage rotor as slip functions		
		Moț	Martjan	Politehnica University Timisoara, Electrical Engineering Department	Romania
		Greconici	Marian	Politehnica University Timisoara, Electrical Engineering Department	Romania
		Biriescu	Marius	Politehnica University Timisoara, Electrical Engineering Department	Romania
		Madescu	Gheorghe	Politehnica University Timisoara, Electrical Engineering Department	Romania

09:00h	SESSION -T6.1	Power quality			STP - Hall 3
	Chair:	Prof. Slobodan Lubura, University of East Sarajevo, Faculty of Electrical Engineering, East Sarajevo, Bosnia and Herzegovina			
	Co-chair:	Assoc. Prof. Dejan Jerkan, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
09:00h	00238	T6.1-1	How to Improve Operation of Coal Power Plant?		
		Mirchevski	Slobodan	“Ss Cyril and Methodius” University, Faculty of Electrical Engineering and Information Technologies	North Macedonia
		Rafajlovski	Goran	“Ss Cyril and Methodius” University, Faculty of Electrical Engineering and Information Technologies	North Macedonia
		Vidanovski	Dragan	JSC “North Macedonian Power Plants”, REK Bitola	North Macedonia
09:15h	02038	T6.1-2	Modeling of the output admittance for the grid-connected three-level T-type power converter with LCL filter		
		Miletic	Zoran	Austrian Institute of Technology GmbH	Austria
		Tarraso	Andres	Polytechnical University of Catalonia (UPC)	Spain
		Tremmel	Werner	Austrian Institute of Technology GmbH	Austria
		Banjac	Anja	Austrian Institute of Technology GmbH	Austria
		Stöckl	Johannes	Austrian Institute of Technology GmbH	Austria
		Grbović	Petar	University of Innsbruck, Innsbruck Power Electronics Lab - i-PEL	Austria
09:30h	06238	T6.1-3	Test bench for evaluation of machine learning algorithms applied to PQ parameters classification		
		Brestovacki	Lenka	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Stanisavljevic	Aleksandar	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Vasiljevic Toskic	Marko	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Turovic	Radovan	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Katic	Vladimir	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Dragan	Dinu	University of Novi Sad, Faculty of Technical Sciences	Serbia
09:45h	04738	T6.1-4	EMI and EMC in Electronics Course at the FTS, University of Novi Sad		
		Damjanović	Mirjana	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Babković	Kalman	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Kisić	Milica	University of Novi Sad, Faculty of Technical Sciences	Serbia
08:30h	SESSION -T5.1	Smart Power Electronics, Smart Grids, and Energy Storage			STP - Hall 5
	Chair:	Assist. Prof. Aleksandar Stanisavljević, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
	Co-chair:	Assist. Prof. Galina Demidova, ITMO University, St. Petersburg, Russian Federation			
08:30h	03338	T5.1-1	Review on the state-of-the-art of hybrid energy storage systems for Electric Transportation systems and their applicability to mobile robots		
		Jesacher	Erwin	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)	Austria
		Bouvier	Yann E.	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)	Austria
		Hanschek	Andreas J.	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)	Austria
		Stanojevic	Aleksandra	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)	Austria
		Grbovic	Petar J.	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)	Austria
08:45h	06638	T5.1-2	Enhancing stability of Grid-Following inverter for renewables		
		Glušević	Jovana	University of Belgrade, Electrical Institute Nikola Tesla	Serbia
		Janda	Žarko	University of Belgrade, Electrical Institute Nikola Tesla	Serbia
		Dragosavac	Jasna	University of Belgrade, Electrical Institute Nikola Tesla	Serbia
		Ristić	Leposava	University of Belgrade, School of Electrical Engineering	Serbia
09:00h	SESSION -T7.1	Renewable & distributed energy sources			STP - Hall 5
	Chair:	Assist. Prof. Aleksandar Stanisavljević, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
	Co-chair:	Assist. Prof. Galina Demidova, ITMO University, St. Petersburg, Russian Federation			
09:00h	02138	T7.1-1	High Efficient Maximum Power Point Tracking for Multiple Solar Strings with GaN-Based HILEM Circuit		
		Becker	Marcus	Karlsruhe Institute of Technology	Germany
		Stefanski	Lukas	Karlsruhe Institute of Technology	Germany
		Hiller	Marc	Karlsruhe Institute of Technology	Germany
09:15h	02338	T7.1-2	Small Magnus Wind Turbine Control System Based on MPPT Approaches		
		Lukin	Aleksandr	ITMO University	Russian Federation
		Demidova	Galina	ITMO University	Russian Federation
		Poliaikov	Nikolai	ITMO University	Russian Federation
		Rezaeva	Maria	ITMO University	Russian Federation
		Zhdanov	Ivan	ITMO University	Russian Federation
		Lukichev	Dmitry	ITMO University	Russian Federation
09:30h	03838	T7.1-3	Investigation of Incremental Conductance MPPT Algorithm in MATLAB/Simulink Using Photovoltaic Powered DC-DC Boost Converter		
		Akin	Ercan	Recep Tayyip Erdoğan University, Department of Electrical and Electronics Engineering	Turkey
		Şahin	Mustafa Ergin	Recep Tayyip Erdoğan University, Department of Electrical and Electronics Engineering	Turkey
09:45h	05438	T7.1-4	Wind Turbine Modeling Using Wind Speed Measurement Data		
		Milad	Sulaiman	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Milićević	Srdan	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Katić	Vladimir A.	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Stanisavljević	Aleksandar M.	University of Novi Sad, Faculty of Technical Sciences	Serbia
10:00h - 10:15h	Coffee Break				
10:15h	SESSION -T1.2	Power Converters and devices			STP - Hall 1
	Chair:	Prof. Aleksandar Prodić, University of Toronto, Toronto, Canada			
	Co-chair:	Dr. Predrag Ninković, Electrical Engineering Institute Nikola Tesla, Belgrade, Serbia			
10:15h	01738	T1.2-1	Prototype Proposal of an 18 kW Non-Isolated Bidirectional Converter for Battery Energy Storage System		
		Brandis	Andrej	Faculty of Electricity Engineering, Computer Science and Information Technology Osijek	Croatia
		Knol	Kristian	Faculty of Electricity Engineering, Computer Science and Information Technology Osijek	Croatia
		Pelin	Denis	Faculty of Electricity Engineering, Computer Science and Information Technology Osijek	Croatia
		Topić	Danijel	Faculty of Electricity Engineering, Computer Science and Information Technology Osijek	Croatia
10:30h	01338	T1.2-2	Design of modular 110V / 370V 10kW Front-End Converter for High-Power Single-Phase Inverter		
		Kuraj	Ivan	Electrical Engineering Institute Nikola Tesla	Serbia
		Glušević	Jovana	Electrical Engineering Institute Nikola Tesla	Serbia
		Kovačević	Nikola	Electrical Engineering Institute Nikola Tesla	Serbia
		Ninković	Predrag	Electrical Engineering Institute Nikola Tesla	Serbia
10:45h	02638	T1.2-3	Design and Operation of a Three-Phase Split-Source Inverter with a Saturable Inductor		
		Bašić	Mateo	University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture	Croatia
		Vukadinović	Dinko	University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture	Croatia
		Grgić	Ivan	University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture	Croatia
		Vekić	Marko	University of Novi Sad, Faculty of Technical Sciences	Serbia
		Strinić	Ivan	University of Split, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture	Croatia



11:00h	03238	T1.2-4	<b>Comparison between ZVS and ZCS Series Resonant Balancing Converters</b>		
			Lopusina	Igor	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)
			Stanojevic	Aleksandra	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)
			Bouvier	Yann E.	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)
			Grbovic	Petar J.	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)
11:15h	04138	T1.2-5	<b>Review of Fully Soft-Switching Flying Capacitor-Based Quasi-Resonant Converters</b>		
			Nag	Kumar Joy	University of Toronto
			Prodic	Aleksandar	University of Toronto
11:30h	05138	T1.2-6	<b>Hardware-in-the-Loop Simulation of a Virtual Synchronous Motor</b>		
			Tanasic	Mihailo	University of Belgrade, School of Electrical Engineering
			Brkovic	Bogdan	University of Belgrade, School of Electrical Engineering
			Majstorovic	Milovan	University of Belgrade, School of Electrical Engineering
			Ristic	Leposava	University of Belgrade, School of Electrical Engineering
10:15h	<b>SESSION T4.1</b>		<b>Advanced Control Systems and Measurement</b>		<b>STP - Hall 2</b>
		<b>Chair:</b>	<b>Prof. Leposava Ristić, University of Belgrade, School of Electrical Engineering, Belgrade, Serbia</b>		
		<b>Co-chair:</b>	<b>Assoc. Prof. Srđan Lale, University of East Sarajevo, Faculty of Electrical Engineering, East Sarajevo, Bosnia and Herzegovina</b>		
10:15h	04238	T4.1-1	<b>Encoderless Predictive Speed and Torque Control of an Induction Motor</b>		
			Zerdali	Emrah	Ege University, Department of Electrical and Electronics Engineering
			Rivera	Marco	University of Nottingham, Faculty of Engineering, Power Electronics and Machine Centre - PEMC
			Zanchetta	Pericle	University of Nottingham, Faculty of Engineering, Power Electronics and Machine Centre - PEMC
			Wheeler	Patrick	University of Nottingham, Faculty of Engineering, Power Electronics and Machine Centre - PEMC
			Ristić	Leposava	University of Belgrad, School of Electrical Engineering
10:30h	01138	T4.1-2	<b>4-Axis Control Application with Simatic S7-1500T and Sinamics S210</b>		
			Rata	Mihai	Stefan cel Mare University of Suceava
			Graur	Adrian	Stefan cel Mare University of Suceava
			Rata	Gabriela	Stefan cel Mare University of Suceava
10:45h	03638	T4.1-3	<b>Phase Current Reconstruction, DC Link Voltage and Rds-on Measurement Using Sensors Integrated on Gate Drivers for SiC MOSFET</b>		
			Mitrovic	Vladimir	Virginia Tech, Center for Power Electronics Systems
			Fan	Boran	Virginia Tech, Center for Power Electronics Systems
			Cao	Yuliang	Virginia Tech, Center for Power Electronics Systems
			Bai	Yijie	Virginia Tech, Center for Power Electronics Systems
			Burgos	Rolando	Virginia Tech, Center for Power Electronics Systems
			Boroyevich	Dushan	Virginia Tech, Center for Power Electronics Systems
11:00h	03938	T4.1-4	<b>A Novel Quadrature-Signal-Generator based on Sliding-Mode Discrete Fourier Transform</b>		
			Ninkovic	Predrag	Electrical Engineering Institute Nikola Tesla
11:15h	04038	T4.1-5	<b>Power Calculations by Using Enhanced Frequency-Locked Loops</b>		
			Mandić	Zorana	University of East Sarajevo, Faculty of Electrical Engineering
			Kukrić	Nikola	University of East Sarajevo, Faculty of Electrical Engineering
			Lale	Srđan	University of East Sarajevo, Faculty of Electrical Engineering
			Popović	Božidar	University of East Sarajevo, Faculty of Electrical Engineering
			Jokić	Dejan	International Burch University
			Lubura	Slobodan	University of East Sarajevo, Faculty of Electrical Engineering
10:15h	<b>SESSION -T3.2</b>		<b>Electrical Machines</b>		<b>STP - Hall 3</b>
		<b>Chair:</b>	<b>Prof. Ion Boldea, University Politehnica Timisoara, Timisoara, Romania</b>		
		<b>Co-chair:</b>	<b>Prof. Veran Vasić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia</b>		
10:15h	01238	T3.2-1	<b>Hybrid Iron Loss Model for IPMSMs in Wide-Speed Range Applications</b>		
			Banović	Milica	University of Belgrade, School of Electrical Engineering
			Irićanin	Bratislav	University of Belgrade, School of Electrical Engineering
			Reljić	Dejan	University of Novi Sad, Faculty of Technical Sciences
			Jerkan	Dejan	University of Novi Sad, Faculty of Technical Sciences
10:30h	02738	T3.2-2	<b>Comparison of optimal control trajectories of IPMSMs with different saliency ratios</b>		
			Jaric	Milica	University of Novi Sad, Faculty of Technical Sciences
			Popovic	Vladimir	University of Novi Sad, Faculty of Technical Sciences
			Vuckovic	Mladen	University of Novi Sad, Faculty of Technical Sciences
			Marcetic	Darko	University of Novi Sad, Faculty of Technical Sciences
			Jerkan	Dejan	University of Novi Sad, Faculty of Technical Sciences
10:45h	00438	T3.2-3	<b>Design of Novel Hybrid Excitation Segmented-rotor Switched Reluctance Motor for Electric Vehicle</b>		
			Yan	Wenju	China University of Mining and Technology, School of Electrical Engineering
			Hu	Jiangpeng	China University of Mining and Technology, School of Electrical Engineering
			Chen	Hao	China University of Mining and Technology, School of Electrical Engineering
			Li	Hailong	China University of Mining and Technology, School of Electrical Engineering
			Yu	Fengyuan	China University of Mining and Technology, School of Electrical Engineering
			Wang	Qing	Nanchang University, School of Information Engineering
11:00h	03138	T3.2-4	<b>Three-phase Biaxial Excitation Synchronous Generator (BEGA) intern-fault experimental characterisation</b>		
			Khodabux	Kaleem	Université des Mascareignes Roches Brunes
			Martin	Adrian Daniel	University Politehnica Timisoara
			Vitan	Liviu - Dănuț	University Politehnica Timisoara
			Tutelea	Lucian - Nicolae	University Politehnica Timisoara, Romanian Academy-Timisoara Branch Timisoara
			Busawon	Krishna	Northumbria University Newcastle upon Tyne, United Kingdom
			Boldea	Ion	University Politehnica Timisoara, Romanian Academy-Timisoara Branch Timisoara
11:15h	00338	T3.2-5	<b>An Adaptive Electromagnetic Force Distribution Method Based on a Double-sided Switched Reluctance Linear Motor</b>		
			Liu	Jinfu	China University of Mining and Technology, School of Electrical Engineering
			Chen	Hao	China University of Mining and Technology, School of Electrical Engineering
			Yan	Wenju	China University of Mining and Technology, School of Electrical Engineering
			Do	Ton Duc	Nazarbayev University
			Shamiev	Murat	Tashkent State Technical University
			Tairov	Yokub	Tashkent State Technical University
			Agüirre	Miguel Pablo	Instituto Tecnológico de Buenos Aires
12:00h	<b>PLENARY Session - KN3</b>		<b>KEY-NOTE PAPERS</b>		<b>STP - Hall 1</b>
		<b>Chair:</b>	<b>Prof. Rolando Burgos, Virginia Polytechnic Institute and State University, Blacksburg, United States</b>		
		<b>Co-chair:</b>	<b>Prof. Vladimir Katić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia</b>		
12:00h		<b>KN3.1</b>	<b>Mission profile emulation and reliability testing for power electronics</b>		
			Ma	Ke	Shanghai Jiao Tong University, Shanghai
12:30h		<b>KN3.2</b>	<b>Railway traction Power Supply from the state of the art to future trends</b>		
			Ladoux	Philippe	University of Toulouse
13:00h - 14:00h	<b>LUNCH BREAK</b>				

14:00h	PLENARY Session - IP1		INVITED PAPERS			STP - Hall 1
		Chair:	Prof. Philippe Ladoux, University of Toulouse, France			
		Co-chair:	Prof. Milutin Petronijević, University of Niš, Faculty of Electronic Engineering, Niš, Serbia			
14:00h	06038	IP1.1	High-Performance Multi-sampled Control for Power Electronics Converters			
			Cvetanovic	Ruzica	University of Padova	Italy
			Petric	Ivan	Hanwha Q CELLS America Inc.	United States
			Mattavelli	Paolo	University of Padova	Italy
			Buso	Simone	University of Padova	Italy
14:20h	04638	IP1.2	A Sliding Mode based Controller for No Inertia Islanded Microgrids			
			Procopio	Renato	University of Genoa	Italy
			Bonfiglio	Andrea	University of Genoa	Italy
			Rosini	Alessandro	University of Genoa	Italy
			Petronijević	Milutin	University of Nis	Serbia
			Filipović	Filip	University of Nis	Serbia
			Incremona	Gian Paolo	Politecnico di Milano	Italy
			Ferrara	Antonella	University of Pavia	Italy
14:45h		IS-3	Industry session: Supporting companies' presentations			STP - Hall 1
		Chair:	Assoc. Prof. Stevan Cvetičanin, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
		Co-chair:	Bojana Milutinović, Origin, Serbia			
14:45h		IS3.1	AI Solutions for E-mobility			
			Dr. Laemmermann Sven	ZF Serbia, Pančevo		Serbia
15:05h		IS3.2	HIL testing of EV powertrain and charging made easy			
			Dušan Majstorović	Typhoon Hil, Inc., Novi Sad		Serbia
15:25h		IS3.3	Bosch: Electrical Drives			
			Parenta Denis and Ivanišević Aljoša	Bosch		Serbia
15:45h		IS3.4	Hardware Design Validation in Automotive Industry			
			Ninković Nikola	Brose d.o.o., Pančevo		Serbia
16:00h		IS3.5	Infineon/IPCEI Presentation			
			Goran Mišković, Christina Wariwoda	Infineon Technologies Austria AG		Austria
16:15h - 16:30h	Coffee Break					
16:30h	PLENARY Session - IP2		INVITED PAPERS			STP - Hall 1
		Chair:	Prof. Denis Pelin, University of Osijek, Faculty of Electricity Engineering, Computer Science and Information Technology, Osijek, Croatia			
		Co-chair:	Assist. Prof. Ivan Todorović, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
16:30h	01438	IP2.1	Modern Solution of Inductive Charging System for 800 V Batteries of Electric Vehicles			
			Vračar	Darko	BRUSA Elektronik (München) GmbH, Munchen	Germany
16:50h	06838	IP2.2	Next Generation of High Power Density On-board Chargers for Electric Vehicle Systems			
			Pacini	Alex	Infineon Technologies Austria AG, Villach	Austria
			Kasper	Matthias	Infineon Technologies Austria AG, Villach	Austria
			Pevere	Alessandro	Infineon Technologies Austria AG, Villach	Austria
			Deboy	Gerald	Infineon Technologies Austria AG, Villach	Austria
17:10h	PLENARY Session - IL1		INVITED LECTURES			STP - Hall 1
		Chair:	Dr. Žarko Janda, Electrical Engineering Institute “Nikola Tesla”, Belgrade, Serbia			
		Co-chair:	Zoran Miletić, Austria Intitute of Technology, Vienna, Austria			
17:10h		IL1.1	Steps Towards Widespread Use of DC Microgrids: Opportunities and Challenges			
			Lazarević	Vladan	ABB, Baden	Switzerland
17:30h		IL1.2	Next-generation enabling technology for advanced packaging solutions in power electronics			
			Mišković	Goran	Infineon Technologies Austria AG, Villach	Austria
18:00h	SESSION - T1.3		Power Converters and devices			STP - Hall 1
		Chair:	Prof. Dushan Boroyevich, Virginia Polytechnic Institute and State University, Blacksburg, United States			
		Co-chair:	Assoc. Prof. Stevan Grabić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia			
18:00h	04538	T1.3-1	Multi-objective Design Optimization and Selection of Bidirectional DC-DC Converters for Solid Oxide Fuel Cells			
			Saafan	Ahmed	Virginia Polytechnic Institute and State University, Blacksburg	United States
			Iurich	Mattia	Virginia Polytechnic Institute and State University, Blacksburg	United States
			Fan	Boran	Virginia Polytechnic Institute and State University, Blacksburg	United States
			Dong	Dong	Virginia Polytechnic Institute and State University, Blacksburg	United States
			Burgos	Rolando	Virginia Polytechnic Institute and State University, Blacksburg	United States
18:15h	04838	T1.3-2	Hardware Design Considerations for a 100 W USB Type-C Power Delivery in Aircraft Application			
			Zhao	Tianyu	Virginia Polytechnic Institute and State University, Blacksburg	United States
			Burgos	Rolando	Virginia Polytechnic Institute and State University, Blacksburg	United States
			Wen	Bo	Virginia Polytechnic Institute and State University, Blacksburg	United States
			McLean	Andrew	Collins Aerospace	United Kingdom
			Mattos	Rodrigo	Collins Aerospace	United Kingdom
18:30h	04938	T1.3-3	A New Highly Step-Down Quadratic Converter			
			Pop	Gabriela-Madalina	Politehnica University Timisoara	Romania
			Jurca	Lucia-Daniela	Politehnica University Timisoara	Romania
			Pop-Calimanu	Ioana-Monica	Politehnica University Timisoara	Romania
			Lascu	Dan	Politehnica University Timisoara	Romania
18:45h	05238	T1.3-4	Optimized inductance method based on neural networks for wireless power transfer applications in implantable medical devices			
			Rodriguez Fuentes	Álvaro	Universidad Politécnica de Madrid	Spain
			Jiménez Carrizosa	Miguel	Universidad Politécnica de Madrid	Spain
			Ramos	Regina	Universidad Politécnica de Madrid	Spain
			Delgado	Alberto	Universidad Politécnica de Madrid	Spain
19:00h	02938	T1.3-5	Optimization of custom Ferrite E-core-shaped transformers for power loss and volume reduction using Pareto front analysis			
			Bouvier	Yann E.	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)	Austria
			Salinas	Guillermo	Independent researcher	Spain
			Stanojevic	Aleksandra	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)	Austria
			Grbovic	Petar J.	University of Innsbruck, Innsbruck Power Electronics Laboratory (i-pel)	Austria







# XXII Savetovanje Energetska elektronika - Ee 2023

## Finalni Program

Subota, 28. Oktobar 2023.  
NOVI SAD



Sreda, 25 Okt. 2023.				
PO PROGRAMU ZA 22 <sup>nd</sup> INTERNATIONAL SYMPOSIUM on POWER ELECTRONICS				
Četvrtak, 26 Okt. 2023.				
PO PROGRAMU ZA 22 <sup>nd</sup> INTERNATIONAL SYMPOSIUM on POWER ELECTRONICS				
Petak, 27 Okt. 2023.				
PO PROGRAMU ZA 22 <sup>nd</sup> INTERNATIONAL SYMPOSIUM on POWER ELECTRONICS				
Subota, 28 Okt. 2023.				
Venue: Novi Sad, Science and Technology Park (STP)				
08:00 REGISTRACIJA				
	Id rada	Tema	Naslov rada i Autori	Država / Mesto
08:30h	SESIJA - S1		ENERGETSKA ELEKTRONIKA I SRODNE OBLASTI	NTP - Sala 1
		Predsed.:	Goce Arsov, Univerzitet Sv. Kiril i Metodij, Skoplje, Severna Makedonija	
		Ko-Predsed.:	Zoltan Čorba, Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad, Srbija	
08:30h	00439	S1-1	50 GODINA SKUPOVA ENERGETSKA ELEKTRONIKA	
		Katić	Vladimir	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Nikolić	Dragomir	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Čorba	Zoltan	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Stanisavljević	Aleksandar	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Cvetičanin	Stevan	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Gerić	Ljubinka	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Galić	Jadranka	Društvo za energetske elektroniku, Novi Sad
08:45h	00539	S1-2	ZNAČAJ I UTICAJ SKUPOVA ENERGETSKA ELEKTRONIKA	
		Katić	Vladimir	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Nikolić	Dragomir	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Čorba	Zoltan	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Stanisavljević	Aleksandar	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Cvetičanin	Stevan	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Gerić	Ljubinka	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Galić	Jadranka	Društvo za energetske elektroniku, Novi Sad
09:00h	00239	S1-3	KARAKTERIZACIJA POTISKIVAČA ZAJEDNIČKIH SMETNJI KORIŠĆENJEM ANALIZATORA SPEKTRA	
		Damjanović	Mirjana	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Kisić	Milica	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
09:15h	00339	S1-4	PROJEKTANT KAO BALANS IZMEĐU ŽELJA INVESTITORA I TEHNIČKIH MOGUĆNOSTI IZGRADNJE FOTONAPONSKIH ELEKTRANA	
		Čorba	Zoltan	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Milićević	Dragan	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Popadić	Bane	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Dumnić	Boris	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
		Cvetičanin	Stevan	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
09:30h	00139	S1-5	PRELAZNI REŽIMI PRILIKOM ENERGIJIZACIJE TRANSFORMATORA I KABLA	
		Milanković	Filip	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
09:45h	00639	S1-6	NAUČNI SKUPOVI I INDIKATORI PRAĆENJA NJIHOVOG UTICAJA	
		Katić	Vladimir	Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Novi Sad
10:00h			Pauza za osveženje	
11:30 - 12:30h			GODIŠNJA SKUPŠTINA DRUŠTVA ZA ENERGETSKU ELEKTRONIKU	NTP - Sala 1
			Prof. Katić Vladimir	Predsednik Društva za energetske elektroniku, Novi Sad
12:30h			ZATVARANJE SKUPA	NTP - Sala 1

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