

**TECHNICAL UNIVERSITY OF VARNA  
ELECTRICAL ENGINEERING FACULTY**



**P R O G R A M M E**

**INTERNATIONAL SCIENTIFIC  
SYMPOSIUM**

***ELECTRICAL POWER ENGINEERING  
2014***

**11 - 13 SEPTEMBER 2014  
Varna  
BULGARIA**

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**The opening ceremony and presentations** will be held on September 11<sup>th</sup> at the hotel „SENTIDO GOLDEN STAR“, Golden Sands Resort.

**The discussions, oral and poster presentations** will be held on September 12<sup>th</sup> at hotel „SENTIDO GOLDEN STAR“, Golden Sands Resort.

**The welcome cocktail will be held at hotel „SENTIDO GOLDEN STAR“** on September 11<sup>th</sup> from 18:30.

**The official dinner will be held at hotel „SENTIDO GOLDEN STAR“** on September 13<sup>th</sup> from 20:30.

## PROGRAMME

from – to	<b>11 September 2014</b>
	<b>Hotel „SENTIDO GOLDEN STAR“</b>
9:00 – 15:00	<b>Registration</b>
10:00 – 10:30	<b>Official opening</b>
10:30 – 13:00	<b>Plenary papers</b> 40 YEARS OF DEPARTMENT “ELECTRIC POWER ENGINEERING” AT TECHNICAL UNIVERSITY OF VARNA, Angel Vrangov ADVANCED DEVICES FOR STABILITY IMPROVEMENT OF INTERCONNECTED ELECTRIC POWER SYSTEMS, Krum Gerasimov, Konstantin Gerasimov, Nikolay Nikolaev
13:00 – 14:00	<b>Lunch break</b>
14:00 – 16:00	<b>Company presentations</b>
18:30 – 21:00	<b>Welcome cocktail - hotel „SENTIDO GOLDEN STAR“</b>

from – to	<b>12 September 2014</b>
	<b><u>Section “ELECTRICAL POWER NETWORKS AND SYSTEMS-1” – room 1</u></b> <b>Chairman: M. Hamza, TU- Varna, Bulgaria</b> <b>Secretary: K. Gerasimov</b>
9:00 – 9:20	RELIABILITY EVALUATION FOR ELECTRIC POWER SUPPLY MANAGEMENT, Alina Yuldasheva, Alexey Malafeev
9:20 – 9:40	THE DEVELOPMENT OF A MATHEMATICAL MODEL TO ASSESS THE RELIABILITY INDEXES OF HIGH-VOLTAGE SWITCHES IN POWER ENGINEERING SYSTEMS, A.N. Nazarychev, I.N. Sulynenkov
9:40– 10:00	THE CAPACITY LIMITATIONS OF A POWER TRANSMISSION CABLE LINES IN THE STRUCTURE OF CIVIL AND INDUSTRY ENGINEERING NETWORKS, S.M. Dudkin, A.V. Kosorukov, A.N. Nazarychev, A.I. Tadzhibaev, V.V. Titkov1, P.D. Tukeyev
10:00 –10:20	PRE-EMERGENCY POWER SYSTEM CONTROL BASED ON COMPUTATIONAL INTELLIGENCE APPROACHES, Nikita Tomin, Daniil Panasetsky, Nicolai Voropai, Victor Kurbatsky

10:20– 10:40	POLE PLACEMENT APPROACH FOR PSS TUNING BASED ON IDENTIFICATION OF POWER SYSTEM MODEL, Valery Tashchilin, Pavel Chusovitin, Grigory Shabalin, Andrey Pazderin
10:40 – 11:00	STUDY OF THE POWER EFFICIENCY BY SECTORS AT AUTOMATIC AND MANUAL REGIME CONTROL OF THE VOLTAGE IN THE ELECTRIC POWER SYSTEM, N.Naidenov, I.Iliev, R.Kirov
11:00 – 11:20	RESEARCH, RESULTS AND RECOMMENDATIONS FOR ACHIEVING ELECTROMAGNETIC COMPATIBILITY BY SECTORS, R.Kirov, I.Iliev, D.Rusev
11:20– 11:40	COMPLEX APPROACH FOR ESTIMATING THE ENERGY EFFICIENCY IN POWER SUPPLY SYSTEMS OF RESIDENTIAL AND HOTEL COMPLEXES WITH FRAGMENTED SYSTEMS OF RENEWABLE NERGY SOURCES, Valentin Gurov
11:40-12:00	POSSIBILITY OF APPLYING ECONOMIC PERFORMANCE INDICATOR IN POWER SUPPLY SYSTEMS IN THE PRESENCE OF NON-SINUSOIDAL REGIMES, Rumen Kirov, Valentin Gurov, Ginka Ivanova
13:00 – 14:00	<i>Coffee break</i>
	<b><u>Section “ELECTRICAL POWER NETWORKS AND SYSTEMS-2” – room 1</u></b> <b>Chairman: Y. Kamenov, TU-Varna, Bulgaria</b> <b>Secretary: N. Nikolaev</b>
14:00 – 14:20	EVALUATION OF ALGORITHM FOR LOAD FORECASTING. PROBLEMS OF THE METHODOLOGY, Georgi Georgiev
14:20 – 14:40	DEMAND RESPONSE MANAGEMENT THROUGH SMART METERING SYSTEMS, Stanislav Yordanov, Rosen Vasilev
14:40– 15:00	TWO-STAGE APPROACH FOR THE INITIALIZATION OF DOUBLY-FED INDUCTION GENERATOR MODELS, Nikolay Nikolaev, Konstantin Gerasimov, Federico Milano
15:00 – 15:20	RENEWABLE ENERGY GENERATORS REPRESENTATION BY SYNCHRONOUS MACHINE DURING THREE-PHASE FAULT CONDITIONS Nikolay Nikolaev, Konstantin Gerasimov, Yulian Rangelov
15:20– 15:40	OVERVIEW ON HARMONICS IN THE ELECTRIC POWER SYSTEMS, Yulian Rangelov

from – to	<b>12 September 2014</b>
	<p><b><u>Section “TECHNICAL DIAGNOSTICS AND CONTROL OF ELECTRIC POWER SYSTEMS” – room 2</u></b></p> <p><b>Chairman: L. Dimitrov, TU- Varna, Bulgaria</b></p> <p><b>Secretary: D. DIMITROV</b></p>
14:00 – 14:20	PHASOR APPROACH FOR VARIATION ANALYSIS OF ELECTRIC CIRCUITS, Emil Panov, Miroslava Doneva
14:20 -14:40	EXPLORATION OF THE POSSIBILITIES FOR VARIATION ANALYSIS OF COMPLEX ELECTRIC CIRCUITS BY THE HELP OF THE PHASOR APPROACH, Emil Panov, Miroslava Doneva
14:40– 15:00	WEB BASED SIMULATOR FOR CYCLOCONVERTERS, Fahri Vatansever, Nedim Aktan Yalcin
15:00– 15:20	CALCULATION OF TRIGGER ANGLE OF THYRISTOR RECTIFIERS BASED ON GENETIC ALGORITHM, Fahri Vatansever, Nedim Aktan Yalcin
15:20– 15:40	MODELING OF THE PROCESS OF VOLUME INDUCTION HEATING IN CONTINUOUS REGIME,, Maik Streblau, Bohos Aprahamyan
15:40– 16:00	DEVELOPMENT OF HIGH VOLTAGE INSTALLATIONS ON SHIPBOARD, Stefka Kanturska
16:00– 16:20	FIRE PROTECTION OF MEDIUM VOLTAGE TRANSFORMERS STATIONS, Ljubomir Dimitrov, Stefka Kanturska
16:20 – 16:40	A SURVEY ON ELECTRIC PROPULSION SYSTEMS FOR SHIPS, Stefka Kanturska, Ljubomir Dimitrov
16:40 – 17:00	METHOD FOR ASSESSING DISTURBING EFFECTS OF NONLINEAR LOADS AND ASYMMETRICAL LOADING IN VESSEL ELECTRIC POWER SYSTEMS, Dimitar M.Dimitrov, Petko D.Petkov
17:00 – 17:20	PRESENT STATE OF THE ENERGY EFFICIENCY PROBLEM IN MARINE POWER SYSTEMS WITH PREDOMINANCE OF NONLINEAR AND UNBALANCED LOADS, Dimitar M.Dimitrov
17:20 – 17:40	MULTI-HOP DATA TRANSMISSION IN WIRELESS SENSOR NETWORKS, Zlatan Ganev

	<b>12 September 2014</b>
9:00 – 10:30	<b>POSTER SESSION - ROOM 2</b> <b>Chairman: Assoc. Prof. PhD B. DIMITROV</b>
1	INVESTIGATION OF THE INFLUENCE OF THE EARTHING SYSTEM ON THE SEPARATION DISTANCES FOR EXTERNAL LIGHTNING PROTECTION SYSTEMS, Emil Panov, Marinela Yordanova
2	SYSTEM FOR CAPACITIVE ENERGY ACCUMULATION WITH DISCRETE ALTERNATING VOLTAGE REGULATORS, Milena Ivanova, Emil Barudov
3	IMPROVEMENT OF THE WEAR RESISTANCE OF THE CONTACTS OF THE ELECTRICAL APPARATUS BY COMBINED APPLICATION OF VACUUM TECHNOLOGIES, Bohos Aprahamian, A. Gaydardziev, Maria Nikolova, Vanya Zaharieva
4	BENCHMARKING PROCESS OF CREATING A DRAWING WITH AND WITHOUT USING A CAD SYSTEM, Alexandrina Bankova
5	STDIIES AND RESEARCH BACKGROUND OF STUDENTS IN ENGINEERING GRAPHICS DISCIPLINE ENTERS OUR UNIVERSITIES, Alexandrina Bankova
6	PROCESSING OF RANDOM SIGNALS, OBTAINED BY INVESTIGATION OF THE PLAZMA COATING SYSTEMS WITH LABVIEW SOFTWARE, Ivaylo Nedelchev, Hristo Zhivomirov, Rosen Vasilev
7	SMART ELECTRICITY METERING – BASE FOR IMPLEMENTATION OF SMART ELECTRICITY GRIDS, Stanislav Yordanov, Rosen Vasilev
8	TELECOMUNICATION NETWORK FOR MONITORING OF PHOTOVOLTAIC PARK, Todorka Georgieva, Borislav Necov
9	AN APPROACH FOR INCREASING THE EFFICIENCY OF INVERTERS FOR AUTONOMOUS PHOTOVOLTAIC SYSTEMS, Borislav Dimitrov, Milena Goranova
10	MODEL SCHEME OF THE EARTHING INSTALLATION OF ELECTRICITY OBJECT FOR STUDY OF WAVE PROCESSES Margreta Vasileva, Rosica Dimitrova
11	MODEL STUDY OF THE PROTECTION OF SUBSTATION 110/20 KV AGAINST LIGHTNING OVERVOLTAGES Margreta Vasileva, Neli Velikova
13 September, 20.30	<b>Official dinner - hotel “SENTIDO GOLDEN STAR”</b>