

**TECHNICAL UNIVERSITY OF VARNA  
ELECTRICAL ENGINEERING FACULTY**



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

**INTERNATIONAL SCIENTIFIC  
SYMPOSIUM**

***ELECTRICAL POWER ENGINEERING  
2016***

**6 - 8 OCTOBER 2016  
Varna  
BULGARIA**

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**The opening ceremony and plenary presentations** will be held on October 6<sup>th</sup> at spa hotel „ROMANCE SPLENDID“, St. st. Constantine and Helena Resort.

**The discussions, oral and poster presentations** will be held on October 7<sup>th</sup> at spa hotel „ROMANCE SPLENDID“, St. st. Constantine and Helena Resort.

**The welcome dinner will be held at hotel „ROMANCE SPLENDID“** on October 6<sup>th</sup> from 19:30.

**The official dinner will be held at hotel „ROMANCE SPLENDID“** on October 7<sup>th</sup> from 19:00.

# PROGRAMME

from – to	6 October 2016
	<b>Hotel „ROMANCE SPLENDID“</b>
9:00 – 15:00	<b>Registration</b>
10:00 – 10:30	<b>Official opening - <u>Hall 1</u></b>
10:30 – 12:30	<p><b>Plenary papers</b></p> <p>THE HISTORY OF DEVELOPMENT OF FURTHER PROFESSIONAL EDUCATION AND A MODULAR SYSTEM OF EDUCATION IN THE ENERGY SECTOR, Aleksandr Nazarychev, L. Goryunova</p> <p>SPECIFIC OPERATION CHARACTERISTICS OF GAS INSULATED ELECTRICAL INSTALLATIONS UNDER PRESENT-DAY CONDITIONS, Aleksandr Nazarychev</p> <p>INSULATION DIAGNOSTICS OF HIGH VOLTAGE EQUIPMENT BY DIELECTRIC MEASUREMENTS – HUNGARIAN RESEARCH AND EXPERIENCE, Zoltán Ádám Tamus, Gergely Márk Csányi, Ágnes Szirmai, Anna Nagy</p>
13:00 – 14:00	<b>Lunch break</b>
14:00 – 15:40	<b>Company presentations</b>
15:40 – 16:00	<b>Coffee break</b>
16:00 – 18:00	<p><b>Round table: CHALLENGES FACING THE MODERN EDUCATION AND REALIZATION OF SPECIALISTS IN THE FIELD OF ELECTRICAL POWER ENGINEERING</b></p> <p>„ПРЕДИЗВИКАТЕЛСТВОТА ПРЕД СЪВРЕМЕНОТО ОБУЧЕНИЕ И РЕАЛИЗАЦИЯ НА СПЕЦИАЛИСТИТЕ В ОБЛАСТТА НА ЕЛЕКТРОЕНЕРГЕТИКАТА“</p>
19:30 – 24:00	<b>Welcome dinner - hotel „ROMANCE SPLENDID“</b>

from – to	7 October 2016
<b><u>Hall 1</u></b>	<p><b><u>SECTION</u></b></p> <p><b>“ELECTRIC POWER SYSTEMS”, “ELECTRICAL POWER SUPPLY AND EQUIPMENT”, “NEW TENDENCIES AND TECHNOLOGIES IN THE EDUCATION OF SPECIALISTS IN POWER ENGINEERING”</b></p> <p><b>Chairman: Assoc. prof. PhD eng. Yoncho Kamenov</b> <b>Secretary: Assist.prof. eng. Rositsa Dimitrova</b></p>
9:00 – 9:20	NEW APPROACHES TO LEARNING SUBSTATION OPERATORS BASED ON VIRTUAL REALITY, Rinat Nasyrov
9:20 – 9:40	PARTIAL DISCHARGES IN ROTATING ELECTRIC MASCHINES, Peter Nakov, Lilia Antonova, Victor Raychev
9:40– 10:00	ADVANCED CONTROL STRATEGIES FOR AUTONOMOUS MICRO GRIDS, Rad Stanev
10:00 – 10:20	VOLTAGE STABILITY ANALYSIS OF ELECTRICAL POWER SYSTEMS WITH DISTRIBUTED ENERGY RESOURCES AND ELECTRIC VEHICLES, Rad Stanev, Petko Notov
10:20 –10:40	FAULT SECTION ESTIMATION IN ELECTRIC POWER PLANTS AND ELECTRICAL SUBSTATIONS USING NEURAL NETWORKS WITH RADIAL BASIS FUNCTION, Desislav Stoyanov
<b>10:40- 11:00</b>	<b>Coffee break</b>
	<p><b>Chairman: Assoc.prof. PhD eng. Valentin Gyurov</b> <b>Secretary: Assoc.prof. PhD eng. Vladimir Chikov</b></p>
11:00 – 11:20	SUGGESTIONS FOR FINDING THE CAUSES FOR OVERHEAD POWER LINE OUTAGES BASED ON ANALYSIS OF THE RECORDS ABOUT TRIP EVENTS Georgi Georgiev

11:20 – 11:40	IMPLANTATION OF SCADA SYSTEM (SCHNEIDER ELECTRIC) WITH TRAINING AND EDUCATIONAL PURPOSES IN THE LABORATORIES OF "ELECTRIC POWER SUPPLY AND ELECTRICAL EQUIPMENT" OF THE DEPARTMENT "ELECTRIC POWER SUPPLY AND ELECTRICAL EQUIPMENT" AT THE TECHNICAL UNIVERSITY OF VARNA, Nikolay Naydenov
11:40 – 12:00	A PRACTICAL METHOD FOR EVALUATING OF VOLTAGE DISTORTION FACTOR IN A SHIP ELECTRICAL POWER SYSTEM, Dimitar Dimitrov
12:00 – 12:20	ASSESSMENT OF THE MODERN ELECTRIC MARINE DRIVES IN TERMS OF THE ENERGY EFFICIENCY CONCEPT, Dimitar Dimitrov
12:20 – 12:40	METHODOLOGICAL ASPECTS OF TRAINING ENERGY EFFICIENCY AND RENEWABLE ENERGY SOURCES AND ENERGY MANAGEMENT BY INTENSIFYING THE INDEPENDENT WORK OF STUDENTS Nina Raicheva, Elena Dinchiiska
12:40 – 13:00	OPTIMIZATION OF THE RECTIFIER CURCUIT COMPONENT WITH EVOLUTIONARY ALGORITHMS, Fahri Vatansever, Yigit Kuyu
<b>13:00 – 14:00</b>	<b>Lunch break</b>

from – to	<b>7 October 2016</b>
<b><u>Hall 2</u></b>	<b><u>SECTION “STUDENTS-1”</u></b> <b>Chairman: Assoc.prof. PhD eng. Yulian Rangelov</b> <b>Secretary: Assist.prof. eng. Anton Filipov</b>
10:00 – 10:20	ЗЕЛЕНА ЕЛЕКТРОЕНЕРГЕТИКА В СЪВРЕМЕННОТО ПРОИЗВОДСТВО, Христо Тотев, Илия Борджиев, ПГЕЕ – гр.Пловдив
10:20 - 10:40	ПРЕХОД НА ЛИБЕРАЛИЗАЦИЯ НА ЕНЕРГИЙНИЯ ПАЗАР В БЪЛГАРИЯ, Джошкун Мехмед, ПГМЕТ – гр.Севлиево
10:40 – 11:00	ИНТЕЛИГЕНТНИ МРЕЖИ, Никола Михайлов, ПГМЕТ – гр.Севлиево
11:00– 11:20	ЕКОЛОГИЧНА ОЦЕНКА НА ИЗТОЧНИЦИТЕ НА ВЪЗОБНОВЯЕМА ЕНЕРГИЯ, Иван Златев, ПГМЕТ – гр.Севлиево
11:20– 11:40	ЕНЕРГИЙНИ ИЗТОЧНИЦИ, ПРЕЧИСТВАЩИ ОКОЛНАТА СРЕДА, Христо Стефанов, Мартин Желев, ПГТТМ – гр.Казанлък

11:40– 12:00	РАБОТАТА НА МАЛКА ВЯТЪРНА ТУРБИНА ТИП ДАРИУС И ВЪЗМОЖНОСТИТЕ Й ЗА ИНТЕГРИРАНЕ В СГРАДИ, Михаела Добрева, Александър Дянков, ПТГ – гр.Габрово
12:00– 12:20	МОЯТ ИНТЕЛИГЕНТЕН ДОМ, Пресиан Григоров, Стефан Великов, ПГЕ – гр.Варна

from – to	<b>7 October 2016</b>
<b><u>Hall 2</u></b>	<b><u>SECTION “STUDENTS - 2”</u></b> <b>Chairman: Chief.assist.prof. PhD eng. Nikolay Nikolaev</b> <b>Secretary: assist. prof. PhD eng. Milena Ivanova</b>
14:00 – 14:20	DESIGN OF ELECTRICAL CIRCUITS USING ISO / TS 81346 STANDARD Anastas Zhikov, TU-Varna
14:20 – 14:40	DISTANCE PROTECTION OF HIGH-VOLTAGE POWER LINES, Rangel Ivanov, TU-Varna
14:40 – 15:00	POWER AND ENERGY LOSSES IN ELECTRICAL NETWORKS FOR MEDIUM AND LOW VOLTAGE, Iliyan Todorov , TU-Varna
15:00 – 15:20	REACTIVE POWER COMPENSATION THROUGH CAPACITORS, Velizar Borisov, TU-Varna
15:20 – 15:40	PROTECTION OF ELECTRIC POWER EQUIPMENT BY DIFFERENTIAL RELAYS, Kosta Dimov, TU-Varna
15:40 – 16:00	AUTOMATION SYSTEMS FOR POWER SUBSTATION, Ayan Gyudjen, TU-Varna
16:00 – 16:20	CONTROL AND MEASURING THE DISTANCE BETWEEN THE ELECTRODE SYSTEM OF DISCHARGE GAP FOR HIGH-VOLTAGE TESTS, Evgeni Malev, TU-Varna

from – to	<b>7 October 2016</b>
14:00 – 16:00	<b><u>POSTER SESSION - HALL 1</u></b> <b>Chairman: Assoc. Prof. PhD eng. Angel Vrangov</b> <b>Secretary: Assist.prof. eng. Rositsa Dimitrova</b>
1	GROUNDING SYSTEMS DESIGN USING THE METHOD OF THE GENERALIZED PARAMETERS, Marinela Yordanova, Stanimir Marinov

2	SUCCESSFUL IMPLEMENTATION OF SMART METERING SYSTEMS, INFLUENCE FACTORS, CHALLENGES AND MITIGATION MEASURES, Rosen Vasilev, Stanislav Yordanov, Nikolay Nikolaev
3	MODEL RESEARCH OF THE PROTECTION AGAINST ARRIVING ATMOSPHERIC SURGES IN THE SUBSTATION 110KV, Rositsa Dimitrova, Neli Velikova, Margreta Vasileva, Marinela Yordanova
4	SIMULATION STUDY OF THE PROCESSES IN HIGH-VOLTAGE LABORATORY, Yulian Rangelov, Nikolay Nikolaev, Rositsa Dimitrova
5	TECHNOLOGICAL LOSSES FROM CORONA EFFECT, Valentin Kolev, Peter Nakov, Iva Draganova
6	ASYMMETRY OF PHASE LOAD OF SHUNT REACTORS WITH 3-LEG CORE, Daniel Dobrilov, Angel Tsolov
7	ROLE OF COMMUNICATION TECHNOLOGIES IN THE SMART HOME, Todorka Georgieva
8	MODELING AND SIMULATION OF AN IMPROVED POWER ELECTRONIC CONVERTER FOR WIND TURBINES WITH PERMANENT MAGNET SYNCHRONOUS GENERATORS, Angel Marinov, Plamen Yankov, Emil Rosenov, Orlin Stanchev
9	MODEL BASED ANALYSIS OF A PV SYSTEM FOR DOMESTIC HOT WATER, Angel Marinov, Plamen Yankov, Emil Rosenov, Orlin Stanchev
10	CONTROL OF A SHIP COMPRESSOR STATION WITH PLC, Plamen Parushev, Mihail Dimitrov, Roberto Panchev, Milena Ivanova
11	OPTIMIZATION OF COSTS FOR BALANCING THROUGH SMART METERING SYSTEM, Nikolay Nikolaev, Rosen Vasilev, Stanislav Yordanov
12	MODEL STUDY OF THE INFLUENCE OF REPEATED GROUNDING IN LOW-VOLTAGE GRIDS, Anton Filipov, Marinela Yordanova, Mediha Mehmed – Hamza
13	DESIGN AND CONSTRUCTION OF SYSTEM FOR INTELLIGENT MONITORING, MANAGEMENT AND CONTROL OF ELECTRIC POWER SUPPLY IN TECHNICAL UNIVERSITY OF VARNNA, Valentin Gyurov, Rumen Kirov, Nikolay Naydenov, Hristian Panchev
14	DEVELOPMENT OF PRINCIPLES, CRITERIAS, ALGORITHMS AND STRUCTURE OF A SYSTEM FOR DISPATCHING AND ENERGY MANAGEMENT USED TO MONITOR, CONTROL AND MANAGEMENT OF ELECTRIC POWER SUPPLY SYSTEM, Valentin Gyurov, Rumen Kirov, Nikolay Naydenov, Alexander Kadiev

15	EVALUATION OF THE POSSIBILITY FOR BIOLOGICAL CLEANING OF WATER BY A SYSTEM FOR GENERATION OF HIGH VOLTAGE PULSE DISCHARGES, Milena Ivanova, Emil Barudov
16	EXPLORATION OF THE POSSIBILITIES FOR ANALYSIS OF STATIONARY AC REGIMES IN NON-LINEAR ELECTRIC CIRCUITS BY THE VARIATIONAL APPROACH, Emil Panov, Miroslava Doneva
17	VARIATIONAL APPROACH FOR ANALYSES OF TRANSIENT PROCESSES IN ELECTRIC CIRCUITS AC REGIMES, Miroslava Doneva
18	POLARIZING CONVERTER WITH RECTANGULAR CROSS-SECTION, Andrey Andreev, Emil Panov
19	STUDYING THE EFFECTS OF THE NUMBER OF TURNS IN A SPLIT-PHASE OVER THE CURRENT IN A THREE-PHASE INDUCTION DEVICE, Georgi Zhelev
20	CREATING A PROPER GEOMETRY FOR THERMAL ANALYSIS OF COMMUTATOR MOTORS IN SOLIDWORKS AND POSSIBLE PROBLEMS, Vasil Tepedelenov
21	A WEB-BASED EDUCATIONAL TOOL FOR POWER ANALYSES, Fahri Vatansever, Yigit Kuyu
<b>16:00 - 16:20</b>	<b>Coffee break</b>
<b>7 October, 19:00</b>	<b>Official dinner - hotel “ROMANCE SPLENDID”</b>

