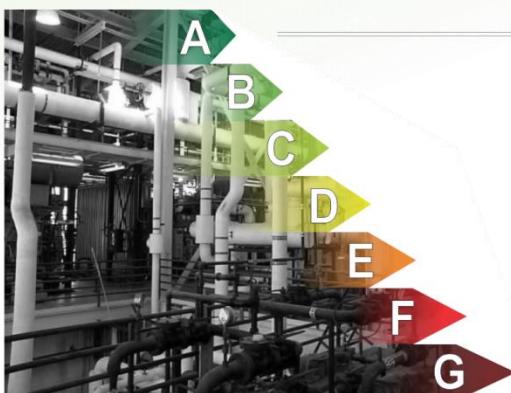




IEEP '19

VII regionalna konferencija / regional conference:
**INDUSTRIJSKA ENERGETIKA I ZAŠTITA ŽIVOTNE SREDINE
U ZEMLJAMA JUGOISTOČNE EVROPE**
**INDUSTRIAL ENERGY AND ENVIRONMENTAL PROTECTION
IN SOUTH EASTERN EUROPEAN COUNTRIES**

PROGRAM



Kongresni centar Romanija, Zlatibor, Srbija
19 - 22. jun 2019.

ORGANIZATOR / ORGANIZER



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- Ministarstvo rudarstva i energetike Republike Srbije
Ministry of Mining and Energy of the Republic of Serbia
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SADRŽAJ / CONTENTS

POZIV / INVITATION	4
PROGRAMSKI ODBOR / PROGRAM COMMITTEE	5
ORGANIZACIONI ODBOR / ORGANISATIONAL COMMITTEE	6
SATNICA / SCHEDULE	8
OSNOVNI CILJEVI IEEP-a 2019 / BASIC GOALS OF IEEP '19	11
OSNOVNI SADRŽAJI IEEP-a 2019 / BASIC CONTENTS OF IEEP '19	11
TEMATSKE CELINE / SUBJECT AREAS	12
PROGRAM	14
ZVANIČAN JEZIK KONFERENCIJE / CONFERENCE OFFICIAL LANGUAGE	25
DRUŠTVENI PROGRAM / SOCIAL PROGRAM	25
KOTIZACIJA / REGISTRATION FEE	25

POZIV / INVITATION

Poštovane kolege,

Industrija u zemljama Jugoistočne Evrope ima slične probleme u vezi energetske efikasnosti i zaštite životne sredine. Preduzeća sa malom energetskom efikasnošću i sa zastarelim industrijskim postrojenjima, našla su se na otvorenom tržištu. Učešće potrošnje energije u ukupnim troškovima preduzeća je toliko veliko da se svaka ušteda u ovoj oblasti direktno odražava na ukupnu produktivnost, a time i konkurentnost privrednog subjekta. Investicije u oblast racionalne potrošnje energije i zaštite životne sredine spadaju u veoma efikasna ulaganja. Investiciona sredstva za ovu oblast su, zahvaljujući brojnim fondovima međunarodnih institucija, dostupnija i znatno povoljnija od kredita poslovnih banaka.

Zbog svega navedenog, potvrđeno je naše očekivanje da će teme konferencije pobuditi značajno interesovanje stručnjaka iz Istočne i Jugoistočne Evrope i šire. Na konferenciji će biti predstavljeno preko 50 radova autora iz zemalja regionala i šire, koji će doći na konferenciju da razmene iskustva i informacije, prošire svoja naučna i tehnička saznanja, kako bi na najracionalniji način povečali u svojim zemljama energetsku efikasnost i zaštitili životnu sredinu.

Konferencija će biti povod za poslovne susrete sponzora i izlagača konferencije koji će industrijskim preduzećima predstaviti najnoviju tehnologiju koja doprinosi energetskoj efikasnosti i zaštiti životne sredine.

Pozivamo vas da svojim aktivnim učešćem na IEEP konferenciji doprinesete ostvarenju njenih ciljeva.

Prof. Goran JANKES, PhD

predsednik Organizacionog odbora i
potpredsednik Društva termičara Srbije /
Organizing Committee President Vice
President of the Society of Thermal
Engineers of Serbia

Dear Colleagues,

The industry of the Southeast European countries is facing numerous problems, similar within the entire region and wider, in terms of energy efficiency and environmental protection. Outdated industrial facilities with low energy efficiency are confronted with the open market economies. The energy consumption costs make a substantial part of the total expenditure of enterprises so that any savings in this area will have a direct influence on productivity and the competitive capacity of enterprises. Investments into rational energy consumption and environmental protection are seen as very effective investments. Due to number of funds available through international institutions, the investments in this area are more accessible and favorable than, for example, credits from commercial banks.

Our belief that the conference will raise huge interest among experts from the East and Southeast Europe is confirmed. The conference will present over 50 papers with authors coming from the region and beyond to exchange experience and information, expand their scientific and technical knowledge, in order to increase the energy efficiency and enhance environmental protection of their countries in the most rational manner.

The Conference will provide opportunity for business meetings of sponsors and exhibitors presenting to industry the latest technology that enhances the energy efficiency and environmental protection.

Therefore, we take this opportunity to invite you to actively take part and contribute to the goals of the IEEP Conference.

Prof. Milan RADOVANOVIC, PhD

predsednik Društva termičara Srbije /
President of the Society of Thermal
Engineers of Serbia

PROGRAMSKI ODBOR / PROGRAM COMMITTEE

Predsednik / President:

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Nikola TANASIĆ, Tehnikum Taurunum, Visoka inženjerska škola strukovnih studija, Beograd-Zemun / Teknikum Taurunum in Zemun, *Serbia*

Verica RAŽNATOVIĆ, Serbian Chambers of Commerce / Privredna komora Srbije, Beograd, *Serbia*

Zoran MANASIEVIĆ, University of Belgrade, School of Electrical Engineering, Belgrade / Univerzitet u Beogradu, Elektrotehnički fakultet, Beograd, *Serbia*

Marko POPOVIĆ, MSc, BBN Congress Management, Belgrade, *Serbia*

SATNICA / SCHEDULE

Sreda, 19. jun 2019 / Wednesday, June 19, 2019

- 16:00-20:00 REGISTRACIJA / REGISTRATION
17:00-18:00 SVEČANO OTVARANJE / OPENING CEREMONY
POZDRAVNI GOVORI / GREETINGS:
Prof. dr Milan RADOVANOVIĆ, predsednik Društva termičara Srbije / president of the Serbian Society of Thermal Engineers
Prof. dr Goran JANAKS, predsednik Organizacionog odbora / president of the Organizing Committee
Miloš BANJAC, Predstavnik Ministarstva za energetiku Republike Srbije / Representative of Ministry of Energy of the Republic of Serbia
Predstavnik Ministarstva zaštite životne sredine Republike Srbije / Representative of the Ministry of environmental protection of the Republic of Serbia
ZVANIČNO OTVARANJE / OFFICIAL OPENING
- 18:00-18:45 UBLAŽAVANJE KLIMATSKIH PROMENA OBLIKUJE SAVREMENU PRIVREDU / CLIMATE CHANGE MITIGATION RESHAPES MODERN INDUSTRY
Miodrag M. MESAROVIĆ, Energoprojekt Entel, Belgrade, Serbia
- 18:45-19:30 POLITIKA ENERGETSKE EFIKASNOSTI U REPUBLICI SRBIJI – PLANOVI ZA BUDUĆNOST / ENERGY EFFICIENCY POLICY IN THE REPUBLIC OF SERBIA – PLANS FOR THE FUTURE
Miloš BANJAC, Ministry of Mining and Energy Republic of Serbia
- 19:30 KOKTEL DOBRODOŠLICE / WELCOME COCKTAIL

Četvrtak, 20. jun 2019 / Thursday, June 20, 2019

- 09:00-10:40 *Energetska politika, zakonodavstvo i podsticajni elementi*
Energy policy, legislature and incentives
- 10:40-11:00 KAFE PAUZA / COFFEE BREAK
- 11:00-13:00 *Energetska politika, zakonodavstvo i podsticajni elementi*
Energy policy, legislature and incentives
- 13:00-13:30 POSLOVNA PREZENTACIJA / BUSINESS PRESENTATION – EES 
- 13:30-15:00 RUČAK / LUNCH
- 15:00-16:00 *Specijalna sesija / Special session*
Energetska efikasnost modernih industrijskih postrojenja - globalni pogledi i studijski slučajevi
Energy efficiency of the modern industrial lines – global overview and case studies
Organizatori / Organizers: **Zoran MANASIEVIĆ, Ilija STEVANOVIĆ**
- 16:00-16:30 KAFE PAUZA / COFFEE BREAK
- 16:30-17:50 *Energetska efikasnost i energetski menadžment u industriji*
Energy efficiency and energy management within industry

Petak, 21. jun 2019 / Friday, June 21, 2019

09:00-10:20	Specijalna sesija / Special Session: <i>Koncepti efikasne i čiste energije, tehnologije i primene – konstrukcija i kontrola</i> <i>Efficient and clean energy concepts, technologies and applications - design and control</i> Organizatori / Organizers: Assist. Prof. Leposava RISTIĆ, PhD, Assist. Prof. Milan BEBIĆ, PhD
10:20-10:50	KAFE PAUZA / COFFEE BREAK
10:50-11:20	Energetska efikasnost i energetski menadžment – zgradarstvo i snabdevanje toplotnom energijom <i>Energy efficiency and energy management – building and thermal energy supply</i>
11:20-11:30	PAUZA / BREAK
11:30-13:00	Zaštita životne sredine i održivi razvoj <i>Environmental protection and sustainable development</i>
13:00-14:00	RUČAK / LUNCH
14:00-15:00	POSLOVNE PREZENTACIJE / BUSINESS PRESENTATIONS (20 min)
15:00-15:15	PAUZA / BREAK
15:15-16:15	Specijalna sesija / Special Session: <i>Pumpe - konstrukcija i eksploracija u funkciji energetski efikasnih rešenja</i> <i>Pumps - design and application in the function of the energy efficient solutions</i> Organizatori / Organizers: Assoc. Prof. Đorđe ČANTRAK, PhD, Assist. Prof. Slobodan TAŠIN, PhD
16:15-16:45	KAFE PAUZA / COFFEE BREAK
16:45-17:35	Korišćenje obnovljivih izvora energije – vетар и geotermalna energija <i>The use of renewable energy sources – wind and geothermal energy</i>
20:00	SVEČANA VEČERA / DINNER CEREMONY

Subota, 22. jun 2019 / Saturday, June 22, 2019

09:30-10:20	Korišćenje obnovljivih izvora energije - solarna <i>The use of renewable energy sources - solar</i>
10:20-10:45	KAFE PAUZA / COFFEE BREAK
10:45-12:15	Korišćenje obnovljivih izvora energije - biomasa <i>The use of renewable energy sources - biomass</i>
12:15-12:30	PAUZA / BREAK

12:30-14:00	OKRUGLI STO: PRAVO U ENERGETICI ČETVRTI ENERGETSKI PAKET PROPISA EVROPSKE UNIJE (ČISTA ENERGIJA ZA SVE EVROPLJANE) FOURTH ENERGY PACKAGE OF EUROPEAN UNION REGULATIONS Moderator: Miloš Kuzman, savetnik u oblasti prava nafte i gasa, NIS
14:00	ZATVARANJE KONFERENCIJE – ZAKLJUČCI / CLOSING CEREMONY – CONCLUSIONS
14:30	RUČAK / LUNCH
Nedelja, 23. jun 2019 / Sunday, June 23, 2019	
9.30	<i>Energetska šetnja inženjera i pravnika do spomenika, a bolje utreniranih do Čigote</i> <i>Energy walk of engineers and lawyers to the monument, and those better trained up to Cigota</i>

OSNOVNI CILJEVI IEEP-a 2019 / BASIC GOALS OF IEEP '19

- Sagledavanje postojećeg stanja u tehničkom, tehnološkom, organizacionom i ekološkom smislu
- Analiza aktuelnih problema sa osvrtom na postojeću zakonsku i tehničku regulativu u Regionu u poređenju sa uslovima EU
- Pogled u budućnost - Pravci razvoja industrijske energetike sa osvrtom na najnovije smernice Evropske komisije
- Prikaz projekata smanjenja potrošnje energije i zaštite životne sredine
- Donošenje zaključaka Konferencije
- Publishing conference conclusions
- Evaluation of the existent practice from technological, technical, managerial and ecological point of view
- Analysis of the current problems with the consideration of existent legal and technical regulations in the specific areas in comparison to EU
- View to the future - Industrial energy progress directions with respect to the newest European Commission directives
- Demonstration of energy reducing and environmental protection projects

OSNOVNI SADRŽAJI IEEP-a 2019 / BASIC CONTENTS OF IEEP '19

- Naučno-stručni sadržaj: teme od posebnog naučnog i stručnog interesa
- Prateći stručni programi: stručni i poslovni razgovori, okrugli sto
- Prateći komercijalni programi: izložba, poslovne prezentacije, oglasni panoci - promocije i prezentacije opreme, proizvoda, aplikativnog softvera, publikacija
- Društveni program: koktel, banket, poslovni ručkovi, večere i kokteli koji omogućuju upoznavanje i zbljžavanje učesnika
- Promocije obuhvataju sve aktivnosti koje svojim porukama i rezultatima povećavaju interesovanje za teme konferencije i stvaraju atmosferu u kojoj se donose odluke o učešću, odnosno potrebi angažovanja na konferenciji
- Scientific content: subjects of special scientific and professional interest
- Side scientific content: professional and business discussions, round tables etc.
- Side commercial program, exhibition, business presentations, advertising panels promotions and presentation of equipment, products, hardware, software, publications
- Social program: cocktails, banquet, business lunches and dinners, organized with the aim of enabling networking among participants
- Promotion includes all activities which would increase the interest in the Conference and create atmosphere fertile for decision making targeted at the participation or engagement in the conference

TEMATSKE CELINE / SUBJECT AREAS

1. Energetska politika, zakonodavstvo i podsticaji

- Energetska politika zemalja regiona
- Nacionalni i regionalni programi energetske efikasnosti
- Podsticajne mere za unapređenje energetske efikasnosti
- Modeli finansiranja energetske efikasnosti
- Zakonska regulativa

2. Energetska efikasnost i energetski menadžment u industriji i zgradarstvu

- Energetska efikasnost i održivi razvoj industrijskih preduzeća
- Energetski efikasne tehnologije
- Problemi i mogućnosti korišćenja kogeneracije i trigeneracije
- Korišćenje otpadne toplote i otpadnih materijala
- Revitalizacija tehnoloških energetskih sistema u industrijskim preduzećima
- Programi energetskog menadžmenta
- Analize stanja i metode optimizacije u industrijskoj energetici
- Merenje, upravljanje i vizuelizacija procesa

3. Zaštita životne sredine i održivi razvoj

- Zaštita vazduha, vode i tla i održivi razvoj industrijskih preduzeća
- Tretman i korišćenje otpadnih materijala
- Studije uticaja na životnu sredinu, IPPC preporuke, BAT i BREF (najbolje raspoložive tehnologije)
- Primena međunarodnih standarda
- Ativnosti i inicijative u svetlu borbe protiv klimatskih promena
- Koncepti i projekti čistije proizvodnje
- Primena analiza životnog veka proizvoda

4. Korišćenje obnovljivih izvora energije

- Korišćenje obnovljivih izvora energije
- Korišćenje otpadnih materija kao goriva u industriji
- Korišćenje lokalnih goriva
- Zamena goriva i korišćenje alternativnih goriva

1. Energy Policy, Legislature and Incentives

- Energy Policy of the Countries in the Region
- National Regional Programs for Energy Efficiency
- Incentive Measures for Improvement of Energy Efficiency
- Financing Models of Energy Efficiency
- Law Regulations

2. Energy efficiency and energy management within industry and building

- Energy efficiency and sustainable development of industrial enterprises
- Energy-efficient technologies
- Problems and possibilities of co-generation and tri-generation usage
- The use of waste heat and waste materials
- Revitalization of technological energy systems in industrial companies
- Energy Management Programs
- The situation analysis and optimization methods in industrial energy
- Measurement, control and process visualization

3. Environmental Protection and Sustainable Development

- Protection of air, water and soil and sustainable development of industrial enterprises
- Treatment and Use of Waste Materials
- Environment Impact Studies, IPPC, BAT and BREF (best available technologies)
- Implementation of International Standards
- Activities and initiatives under the light of climate changes struggle
- Concepts and Projects of Cleaner Production
- Implementation of Analysis of Product Life Cycle

4. The use of renewable energy sources

- The use of renewable energy sources
- Using waste as fuel in industry
- The use of local fuels
- Replacing the fuel and the use of alternative fuels

5. Posebne sesije

- 5a. Primeri dobre prakse i izvedenih rešenja povećanja EE i primene novih izvora energije
- 5b. Unapređenje obrazovanja u energetici i zaštiti životne sredine
- 5c. Pumpe - konstrukcija i eksploracija u funkciji energetski efikasnih rešenja
- 5d. Energetska efikasnost modernih industrijskih postrojenja - globalni pogledi i studijski slučajevi
- 5e. Koncepti efikasne i čiste energije, tehnologije i primene – konstrukcija i kontrola

5. Special Sessions

- 5a. Examples of good practices and existing solutions to increase EE and application of renewable energy sources
- 5b. Improving education in energy and environment
- 5c. Pumps - design and application in the function of the energy efficient solutions
- 5d. Energy efficiency of the modern industrial lines – global overview and case studies
- 5e. Efficient and clean energy concepts, technologies and applications - design and control

PROGRAM

Sreda, 19. jun 2019 / Wednesday, June 19, 2019

16:00-20:00	REGISTRACIJA / REGISTRATION
17:00-18:00	SVEČANO OTVARANJE / OPENING CEREMONY POZDRAVNI GOVORI / GREETINGS: Prof. dr Milan RADOVANOVIĆ , predsednik Društva termičara Srbije / president of the Serbian Society of Thermal Engineers Prof. dr Goran JANKES , predsednik Organizacionog odbora / president of the Organizing Committee Miloš BANJAC , Predstavnik Ministarstva za energetiku Republike Srbije / Representative of Ministry of Energy of the Republic of Serbia Predstavnik Ministarstva zaštite životne sredine Republike Srbije / Representative of the Ministry of environmental protection of the Republic of Serbia ZVANIČNO OTVARANJE / OFFICIAL OPENING
18:00-18:45	UBLAŽAVANJE KLIMATSKIH PROMENA OBLIKUJE SAVREMENU PRIVREDU / CLIMATE CHANGE MITIGATION RESHAPES MODERN INDUSTRY Miodrag M. MESAROVIĆ, Energoprojekt Entel, Belgrade, Serbia
18:45-19:30	POLITIKA ENERGETSKE EFIKASNOSTI U REPUBLICI SRBIJI – PLANOVİ ZA BUDUĆNOST / ENERGY EFFICIENCY POLICY IN THE REPUBLIC OF SERBIA – PLANS FOR THE FUTURE Miloš BANJAC, Ministry of Mining and Energy Republic of Serbia
19:30	KOKTEL DOBRODOŠLICE / WELCOME COCKTAIL

Četvrtak, 20. jun 2019 / Thursday, June 20, 2019

09:00-10:40	<i>Energetska politika, zakonodavstvo i podsticajni elementi</i> <i>Energy policy, legislature and incentives</i>
	<u>UVODNA IZLAGANJA (u trajanju od po 25 minuta, sa uključenom diskusijom) / INTRODUCTORY LECTURES (25 minutes per lecture, discussion included):</u>
	ENERGETSKI SAVETNICI KAO SUBJEKTI SISTEMA ENERGETSKOG MENADŽMENTA / ENERGY COUNSELORS AS SUBJECTS OF THE ENERGY MANAGEMENT SYSTEM
	Miloš BANJAC, Ministry of Mining and Energy Republic of Serbia
	AKTIVNOSTI PRIVREDNE KOMORE SRBIJE NA UNAPREĐENJU ENERGETSKE EFIKASNOSTI U INDUSTRiji I NA ŠIRENJU PRIMENE OBNOVLJIVIH IZVORA ENERGIJE / ACTIVITIES OF THE SERBIAN CHAMBER OF COMMERCE IN IMPROVING ENERGY EFFICIENCY WITHIN INDUSTRY AND IN EXPANDING THE USE OF RENEWABLE ENERGY SOURCES
	Miroslav LUTOVAC, Privredna Komora Srbije, Serbia
	UKLANJANE BARIJERA RADI PROMOCIJE I PODRŠKE SISTEMIMA ENERGETSKOG MENADŽMENTA U OPŠTINAMA ŠIROM SRBIJE / REMOVING BARRIERS TO PROMOTE AND SUPPORT ENERGY MANAGEMENT SYSTEMS IN MUNICIPALITIES THROUGHOUT SERBIA
	Maja MATEJIĆ, Dragan UROSEVIĆ, UNDP, Serbia

**BIOMASA KAO REGIONALNI RESURS – OGRANIČENJA I PROBLEMI U KORIŠĆENJU /
BIOMASS AS REGIONAL RESOURCE – LIMITATIONS AND PROBLEMS IN USE**
Petar GVERO, Univerzitet u Banjoj Luci, Mašinski fakultet, Bosnia and Herzegovina

10:40-11:00 KAFE PAUZA / COFFEE BREAK

11:00-13:00 ***Energetska politika, zakonodavstvo i podsticajni elementi
Energy policy, legislature and incentives***

UVODNA IZLAGANJA (u trajanju od po 30 minuta, sa uključenom diskusijom) /
INTRODUCTORY LECTURES (30 minutes per lecture, discussion included):

**IZAZOVI ENERGETSKIH TRANZICIJA U NEMAČKOJ – USPESI I PROMAŠAJI /
CHALLENGES OF ENERGY TRANSITION IN GERMANY – SUCCESSES AND FAILURES**

Dragan STEVANOVIĆ, Engineering & Consulting, Germany

**ISTRAŽIVANJA PO PITANJU OČIGLEDNE NEODLUČNOSTI U POGLEDU SPREMNOŠTI
ZA INVESTIRANJEM U ENERGETSKU EFIKASNOST U AUSTRIJI / EXPLORATORY
RESEARCH INTO THE APPARENT HESITANT READINESS FOR INVESTMENT INTO
ENERGY EFFICIENCY IN AUSTRIA**

Johannes FRESNER, Christina KRENN, Fabio TOMASI, STENUM GmbH, Austria

**ENERGETSKA POLITIKA I KONKURENTNOST ENERGETSKIH TEHNOLOGIJA / ENERGY
POLICY AND ENERGY TECHNOLOGIES COMPETITIVENESS**

Vojin GRKOVIĆ, Steinbeis Energy Technologies Novi Sad, Serbia

INDUSTRija 4.0 PLATFORMA ZA SRBIJU / INDUSTRY 4.0 PLATFORM FOR SERBIA

Vidosav MAJSTOROVIĆ, Radivoje MITROVIĆ, Mašinski fakultet Univerziteta u Beogradu, Serbia

**ODRŽIVO KORIŠĆENJE MALIH HIDROELEKTRANA U REPUBLICI SRBIJI /
SUSTAINABLE USE OF SMALL HYDRO POWER PLANTS IN THE REPUBLIC OF SERBIA**
V. KARAMARKOVIĆ, Serbia

13:00-13:30 ***POSLOVNA PREZENTACIJA / BUSINESS PRESENTATION – EES***

13:30-15:00 RUČAK / LUNCH

15:00-16:00 ***Specijalna sesija / Special session***

***Energetska efikasnost modernih industrijskih postrojenja - globalni pogledi i
studijски slučajevi***

Energy efficiency of the modern industrial lines – global overview and case studies

Organizatori / Organizers: Zoran MANASIEVIĆ, Ilija STEVANOVIĆ

PREZENTACIJE RADOVA (u trajanju od po 10 minuta, sa diskusijom uključenom) /
PAPER PRESENTATIONS (10 minutes per lecture, discussion included):

**EFEKTI POBOLJŠANE UHF METODE PRONALAŽENJA MESTA PARCIJALNIH
PRAŽNjenja ENERGETSKOG TRANSFORMATORA / EFFECTS OF THE IMPROVED UHF
METHOD IN DETERMINING PARTIAL DISCHARGE LOCATION IN POWER
TRANSFORMERS**

Đorđe DUKANAC, AD Elektromreža Srbije Beograd, Serbia

**OPTIMIZACIJA UPRAVLJANJA NAPONOM U ELEKTROSTATIČKOM FILTERU SA
RAZLIČITIM VRSTAMA NAPAJANJA / OPTIMIZATION OF VOLTAGE MANAGEMENT
IN ELECTROSTATIC FILTER WITH DIFFERENT TYPES OF POWER**

Ilija STEVANOVIĆ, Mladen OSTOJIĆ, Darko JEVTIĆ, Sava DOBRIČIĆ, Elektrotehnički Institut "Nikola Tesla", Univerzitet u Beogradu, Serbia

MERENJE I PROVERA SISTEMA, PREGLED STANDARA, PREPORUKA I ISKUSTVO IZ PRAKSE / MEASUREMENT AND VERIFICATION SYSTEM, RECOMMENDATIONS AND PRACTICE EXPERIENCE

Radoslav ANTIĆ, Ninoslav SIMIĆ, Elektrotehnički Institut "Nikola Tesla", Univerzitet u Beogradu, Serbia

ENERGETSKA STATISTIKA EPIKASNOST I MERE U OKVIRU PROJEKTA ODYSEE-MURE / ENERGY EFFICIENCY STATISTICS AND MEASURES WITHIN THE PROJECT ODYSEE-MURE

Gordana RADOVIĆ, Branka KOVAČEVIĆ, Saša MINIĆ, Zoran MANASIJEVIĆ, Ana ŠARANOVIĆ, Elektrotehnički Institut "Nikola Tesla", Univerzitet u Beogradu, Serbia

TEHNO-EKONOMSKA ANALIZA PRIMENE FREKVENTNOG UPUŠTAČA U POGONIMA SA SINHRONIM MOTORIMA / TECHNO-ECONOMIC ANALYSIS USING FREQUENCY STARTERS TO DRIVES WITH SYNCHRONOUS MOTORS

Zoran MANASIJEVIĆ, Ilija STEVANOVIĆ, Elektrotehnički Institut "Nikola Tesla", Univerzitet u Beogradu, Zoran BOŽOVIĆ, Elektroprivreda Srbije, Dejana MANASIJEVIĆ, Elektrotehnički Institut "Nikola Tesla", Univerzitet u Beogradu, Serbia

SAVREMENE METODE ZA KOMPENZACIJU REAKTIVNE ELEKTRIČNE ENERGIJE KOD INDUSTRIJSKIH POTROŠAČA / UP-TO-DATE METHODS FOR COMPENSATION OF REACTIVE ELECTRICAL ENERGY FOR INDUSTRIAL CONSUMERS

Branka KOVAČEVIĆ, Milica CAKIĆ, Miloš ANĐELKOVIĆ, Elektrotehnički Institut "Nikola Tesla", Univerzitet u Beogradu, Serbia

16:00-16:30 KAFE PAUZA / COFFEE BREAK

16:30-17:50 ***Energetska efikasnost i energetski menadžment u industriji***

Energy efficiency and energy management within industry

UVODNA IZLAGANJA (u trajanju od po 30 minuta, sa uključenom diskusijom) / INTRODUCTORY LECTURES (30 minutes per lecture, discussion included):

ENERGETSKA EPIKASNOST U INDUSTRJI - NA PRVOJ KONFERENCIJI INDUSTRISKA ENERGETIKA DANAS, 25 GODINA KASNIJE / ENERGY EFFICIENCY IN INDUSTRY - ON FIRST INDUSTRIAL ENERGY CONFERENCE AND TODAY, 25 YEARS LATER

Goran JANKES, Mirjana STAMENIĆ, Mašinski fakultet Univerziteta u Beogradu, Serbia

PREZENTACIJE RADOVA (u trajanju od po 10 minuta, sa diskusijom uključenom) / PAPER PRESENTATIONS (10 minutes per lecture, discussion included):

EKSPEIMENTALNA ISTRAŽIVANJA SAGOREVANJA BIOGASA U GORIONIKU SA POROZNOM KERAMIČKOM ISPUNOM U PRISUSTVU KATALIZATORA / EXPERIMENTAL STUDY ON BIGAS COMBUSTION WITHIN POROUS INERT MEDIA WITH CATALYST

Mirjana STAMENIĆ, Mašinski fakultet Univerziteta u Beogradu, Adrian CIOABLA, Faculty of Mechanical Engineering, Politehnica University Timisoara, Romania, Tomislav SIMONOVİĆ, Mašinski fakultet Univerziteta u Beogradu, Serbia

UPOTREBA VEŠTAČKIH NEURONSKIH MREŽA ZA ANALIZU SLOŽENIH ENERGETSKIH SISTEMA / USAGE OF ARTIFICIAL NEURAL NETWORK IN ANALYSIS OF COMPLEX ENERGY SYSTEMS

Branka GVOZDENAC UROŠEVIĆ, Damir ĐOZIĆ, Dušan GVOZDENAC, Faculty of Technical Sciences, Novi Sad, Serbia

SISTEM MENADŽMENTA ENERGIJOM HIP-PETROHEMIJA PANČEVO / ENERGY MANAGEMENT SYSTEM OF CHEMICAL INDUSTRY-PETROCHEMICAL INDUSTRY PANČEVO

Biljana SUSLOV, Miša BULAJIĆ, HIP-Petrohemija a.d. Pančevo, Serbia

ZAMENA MAZUTA I TEĆNIH NAFTNIH DERIVATA SA KOMPRESIONIM PRIRODnim GASOM (CNG) / REPLACEMENT OF CRUDE OIL AND LIQUID PETROL PRODUCTS BY COMPRESSED NATURAL GAS (CNG)

Marin IVOŠEV, Branislav RAMJANC, "SOLARPROJEKT" Kragujevac, Serbia

POREĐENJE PRETVARAČA DINAMIČKOG PRITiska NA OSNOVNOJ GARNiTURI EKSPERIMENTALNOG VODENOG ČEKIĆA / COMPARISON OF DYNAMIC PRESSURE TRANSDUCERS ON EXPERIMENTAL WATER HAMMER SETUP

Radislav BRĐANIN, Uroš KARADŽIĆ, Jovan ILIĆ, Ivan BOŽIĆ, Univerzitet u Istočnom Sarajevu, Fakultet za proizvodnju i menadžment Trebinje, Bosna i Hercegovina

Petak, 21. jun 2019 / Friday, June 21, 2019

09:00-10:20 Specijalna sesija / Specil Session:

**Koncepti efikasne i čiste energije, tehnologije i primene – konstrukcija i kontrola
Efficient and clean energy concepts, technologies and applications - design and control**

Organizatori / Organizers: **Assist. Prof. Leposava RISTIĆ, PhD, Assist. Prof. Milan BEBIĆ, PhD**

PREZENTACIJE RADOVA (u trajanju od po 10 minuta, sa diskusijom uključenom) /
PAPER PRESENTATIONS (10 minutes per lecture, discussion included):

**DISPEČARSKI Trenažni SIMULATOR SREDNjenaponske ELEKTRiČNE MREŽE /
DISPATCHER TRAINING SIMULATOR - MEDIUM VOLTAGE NETWORK**

Vladimir NEŠIĆ, Đorđe JOVANOVIĆ, Matija ŽIVANOVIĆ, Institute "Mihailo Pupin" Automatika d.o.o, Serbia

ANALIZA PERFORMANSE INDUKCIJONIH VETROGENERATORA SA DVOSTRUKIM NAPAJANJEM / PERFORMANCE ANALYSIS OF DOUBLY FED INDUCTION WIND GENERATORS

Taufik TALUO, Leposava RISTIĆ, Univerzitet u Beogradu, Elektrotehnički fakultet, Serbia, Milutin JOVANOVIĆ, Northumbria University Newcastle, Faculty of Engineering and Environment, Department of Mathematics, Physics and Electrical Engineering, United Kingdom

KORISTI OD PRIMENE DALJINSKOG DIREKTNog PRAĆENJA STRUJNih TRANSFORMATORA U BLOKU 1 ELEKTRANA TENT-a B / BENEFITES OF USING REMOTE ON-LINE MONITORING OF BLOCK 1 POWER TRANSFORMERS IN TENT B ELECTRIC POWER PLANTS

Radoslav ANTIĆ, Blagoje BABIĆ, Nikola MILADINOVIĆ, Electrical engineering institute Nikola Tesla, University of Belgrade, Serbia

ENERGETSKI OPTIMALNA REGULACIJA POGONA INDUKCIJONIH MOTORA U PUMPNIM POSTROJENJIMA / ENERGY OPTIMAL CONTROL OF INDUCTION MOTOR DRIVE IN PUMP APPLICATIONS

Mateja NIKOLIĆ, Leposava RISTIĆ, Milan BEBIĆ, University of Belgrade, School of electrical engineering, Serbia

ENERGETSKI OPTIMALNA REGULACIJA POGONA INDUKCIONIH MOTORA – STUDIJA DVA SLUČAJA / ENERGY OPTIMAL CONTROL OF INDUCTION MOTOR DRIVE - STUDY OF TWO CASES

Luka STANIĆ, Žarko KOPRIVICA, Nikola VOJVODIĆ, Leposava RISTIĆ, Milan BEBIĆ, University of Belgrade, School of electrical engineering, Serbia

ENERGETSKI OPTIMALNA REGULACIJA POGONA INDUKCIONIH MOTORA ZASNOVANA NA PSO ALGORITMU / ENERGY OPTIMAL CONTROL OF AN INDUCTION MOTOR DRIVE BASED ON PSO ALGORITHM

Aleksa SEIZOVIĆ, Leposava RISTIĆ, Milan BEBIĆ, University of Belgrade, School of electrical engineering, Serbia

ENERGETSKI EFKASNI INDUSTRIJSKI POGONI SINHRONIH MOTORA / ENERGY EFFICIENT INDUSTRIAL SYNCHRONOUS MOTOR DRIVES

Nikola VOJVODIĆ, Leposava RISTIĆ, Milan BEBIĆ, University of Belgrade, School of electrical engineering, Serbia

10:20-10:50 KAFE PAUZA / COFFEE BREAK

10:50-11:20 *Energetska efikasnost i energetski menadžment – zgradarstvo i snabdevanje toplotnom energijom*

Energy efficiency and energy management – building and thermal energy supply

PREZENTACIJE RADOVA (u trajanju od po 10 minuta, sa diskusijom uključenom) / PAPER PRESENTATIONS (10 minutes per lecture, discussion included):

REVITALIZACIJA TEHNOLOŠKIH ENERGETSKIH SISTEMA U INDUSTRIJSKIM PREDUZEĆIMA - RAZVOJ TERMOELEKTRANE KOSTOLAC / REVITALIZATION OF TECHNOLOGICAL ENERGY SYSTEMS IN INDUSTRIAL ENTERPRISES – DEVELOPMENT OF THERMAL POWER PLANT KOSTOLAC

Nikola TOPIĆ, Serbia

TERMODINAMIČKI I EKOLOŠKI PRIHVATLJIVA ZGRADA / THERMODYNAMICALLY AND ENVIRONMENTALLY ELIGIBLE BUILDING

Pero PETROVIĆ, Milovan KOTUR, Univerzitet u Banjoj Luci, Mašinski fakultet, Haris LULIĆ, Univerzitet u Sarajevu, Mašinski fakultet, Bosnia and Herzegovina

TEHNO-EKONOMSKA ANALIZA IMPLEMENTACIJE POSTROJENJA ZA KOMBINOVANU PROIZVODNJI ELEKTRIČNE I TOPLOTNE ENERGIJE U SISTEM DALJINSKOG GREJANJA / TECHNO-ECONOMIC ANALYSIS OF IMPLEMENTATION OF CHP PLANT WITHIN THE DISTRICT HEATING SYSTEM

Vladimir TANASIĆ, Nikola TANASIĆ, PUC Beogradske elektrane, Serbia

11:20-11:30 PAUZA / BREAK

11:30-13:00 *Zaštita životne sredine i održivi razvoj*

Environmental protection and sustainable development

UVODNA IZLAGANJA (u trajanju od po 30 minuta, sa uključenom diskusijom) / INTRODUCTORY LECTURES (30 minutes per lecture, discussion included):

ZAŠTITA ŽIVOTNE SREDINE I INDUSTRIJSKA ENERGETIKA KOD NAS I U SVETU - U GODINI NAŠE PRVE KONFERENCIJE I 25 GODINA KASNije / ENVIRONMENTAL PROTECTION AND INDUSTRIAL ENERGY IN SERBIA AND WORLDWIDE – BACK IN THE YEAR OF OUR FIRST CONFERENCE AND 25 LATER

Aleksandar JOVOVIĆ, Mašinski fakultet, Univerzitet u Beogru, Serbia

PREZENTACIJE RADOVA (u trajanju od po 10 minuta, sa diskusijom uključenom) /
PAPER PRESENTATIONS (10 minutes per lecture, discussion included):

**TERENSKA MERENJA EMISIJE ZAGAĐUJUĆIH MATERIJA IZ GRADSKIH KOTLARNICA
LOŽENIH UGLJEM U PLJEVALJIMA / FIELD MEASUREMENTS OF EMISSIONS OF
POLLUTANTS FROM CITY COAL FIRED BOILER ROOMS IN PLJEVLJA**

Vladan IVANOVIĆ, Esad TOMBAREVIĆ, Milan ŠEKULARAC, Mašinski fakultet Podgorica, Montenegro

**ENERGETSKA EFKASNOST PRERADE MULJA OTPADNIH VODA PROCESOM SUŠENJA
/ ENERGY EFFICIENCY OF THE WASTE WATER TREATMENT SLUDGE DRYING
PROCESS**

Tatjana KALUĐEROVIĆ RADOIČIĆ, Faculty of Technology and Metallurgy, University of Belgrade, Zorana ARSENJEVIĆ, Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Mirjana KIJEVČANIN, Faculty of Technology and Metallurgy, University of Belgrade, Serbia

**DEKONTAMINACIJA PCB KONTAMINIRANIH ENERGETSKIH TRANSFORMATORA U JP
EPS I PD ELEKTROVOJVODINA PRIMENOM DOMAĆE PATENTIRANE TEHNOLOGIJE
DEHLORINACIJE ULJA / DECONTAMINATION OF PCB CONTAMINATED ENERGY
TRANSFORMERS AT PE EPS AND DISTRIBUTION SUBSIDIARY ELEKTROVOJVODINA
BY APPLICATION OF LOCAL PATENTED OIL DECHLORINATION TECHNOLOGY**

Neda KOVAČEVIĆ, Jelena LUKIĆ, Jelena JANKOVIĆ, Vladimir IVANČEVIĆ, Jelena RADOMIROVIĆ, Electrical engineering institute Nikola Tesla, University of Belgrade, Serbia

**ANALIZA TOKSIČNIH METALA I TRGOVA ELEMENATA U MEDU IZ ISTOČNE SRBIJE
PUTEM ICP-MS / ANALYSIS OF TOXIC METALS AND TRACE ELEMENTS IN HONEY
FROM EASTERN SERBIA BY ICP-MS**

Zorica SOVRLIĆ, Mining and Metallurgy Institute Bor, Snežana TOŠIĆ, Faculty of Science and Mathematics Niš, Marija MILIVOJEVIĆ, Jelena PETROVIĆ, Stefan ĐORDIEVSKI, Mining and Metallurgy Institute Bor, Serbia

**OKOLIŠNA DOZVOLA I STUDIJA UTJECAJA NA OKOLIŠ - SUSTAVAN PRISTUP
UPRAVLJANJU ZAGAĐENJEM I ZAKONSKI JAMAC ZAŠTITE OKOLIŠA U BIH /
ENVIRONMENTAL PERMIT AND ENVIRONMENTAL IMPACT STUDY – SYSTEMATIC
APPROACH TO POLLUTION MANAGEMENT AND LEGAL GUARANTOR OF
ENVIRONMENTAL PROTECTION IN B&H**

Mladen RUDEŽ, Bosnia and Herzegovina

**EVALUACIJA FAKTORA EMISIJE UGLJENIKA IZ LIGNITA BOGUTOVOG SELA, UGLJEVIK
/ EVALUATION OF CARBON EMISSION FACTOR FOR LIGNITE BOGUTOVO SELO,
UGLJEVIK**

Predrag STEFANOVIĆ, Nikola ŽIVKOVIĆ, Milić ERIĆ, Ana MARINKOVIĆ, Zoran MARKOVIĆ, Dejan CVETINOVIĆ, University of Belgrade, Vinča Institute of Nuclear Sciences, Laboratory for thermal Engineering and energy, Serbia, Žarko NOVAKOVIĆ, Dragan MILJANOVIĆ, Goran RIKIĆ, MH "Elektroprivreda of the Republic of Srpska", TPP Ugljevik, Bosnia and Herzegovina

13:00-14:00 RUČAK / LUNCH

- 14:00-15:00 ***POSLOVNE PREZENTACIJE / BUSINESS PRESENTATIONS (20 min)***
INDUSTRJSKI VIJČANI KOMPRESORI - VILTER I NJIHOVA PRIMENA U AMONIJAČNIM TOPLITNIM PUMPAMA / INDUSTRIAL SCREW COMPRESSORS – VILTER AND THEIR APPLICATION IN AMMONIA HEAT PUMPS
Mr. Zoran STAJIĆ, dipl. ing, Emerson Commercial & Residential Solutions-Vilter, Beograd
PRIMENA AMONIJAČNIH TOPLITNIH PUMPI U PROIZVODNJI SLADA / IMPLEMENTATION OF AMMONIA HEAT PUMPS IN MALT PRODUCTION
Mr Dragutin MILJKOVIĆ, dipl.ing , Tehnomag-Teco, Novi Sad
Nebojša PEJIĆ, dipl.ing. Soufflet Srbija, Bačka Palanka
Mr. Zoran STAJIĆ, dipl. ing, Emerson Commercial & Residential Solutions-Vilter, Beograd
MODERNI INDUSTRJSKI KOTLOVI - POVEĆANJE ENERGETSKE EFIKASNOSTI ENERGETSKIH IZVORA U INDUSTRIJI / MODERN INDUSTRIAL BOILERS – IMPROVED ENERGY EFFICIENCY OF ENERGY SOURCES IN INDUSTRY
Vladimir ŽIVANOVIĆ, BOSCH, Serbia
- 15:00-15:15 PAUZA / BREAK
- 15:15-16:15 ***Specijalna sesija / Special Session:***
Pumpe - konstrukcija i eksploatacija u funkciji energetski efikasnih rešenja
Pumps - design and application in the function of the energy efficient solutions
Organizatori / Organizers: Assoc. Prof. Đorđe ČANTRAK, PhD, Assist. Prof. Slobodan TAŠIN, PhD
- PREZENTACIJE RADOVA (u trajanju od po 10 minuta, sa diskusijom uključenom) / PAPER PRESENTATIONS (10 minutes per lecture, discussion included):**
- DEMONSTRACIONI PUMPNI SISTEM / DEMONSTRATIONAL PUMP SYSTEM**
Đorđe ČANTRAK, Miloš NEDELJKOVIĆ, Novica JANKOVIĆ, Dejan ILIĆ, Univerzitet u Beogradu, Mašinski fakultet, Serbia
- PROJEKTNA RAZMATRANJA SPECIFIČNIH JEDNOFAZNIH PUMPI MALIH BRZINA ZA RAD NA SUVO / DESIGN CONSIDERATIONS FOR LOW SPECIFIC SPEED SINGLE STAGE DRY RUNNER PUMPS**
Vladimir ŠKARA, Tobias KALKUHL, Katrin HOLZ, WILO SE, Germany
- MEHANIČKI ZAPTIVAČI I ZAPTIVNI SISTEMI ZA PUMPE / MECHANICAL PRESSURE SEALS AND SEALING SYSTEMS FOR PUMPS**
Nemanja RADIĆ, JKP „Beogradski vodovod i kanalizacija“, Nebojša RADIĆ, MS Promcom d.o.o, Serbia
- RADNI REŽIMI AKSIJALNE PROTOČNE PUMPE SA PODEŠAVANJEM NAVOJA LOPATICE / OPERATING REGIMES OF AXIAL FLOW PUMP WITH BLADE PITCH ADJUSTMENT**
Jasmina BOGDANOVIĆ-JOVANOVIĆ, University of Niš, Faculty of Mechanical Engineering, Serbia
- PREDIKCIJA KARAKTERISTIKA CENTRIFUGALNIH NORMIRANIH PUMPI U REŽIMIMA RADA TURBINA / PREDICTION OF CENTRIFUGAL NORM PUMPS CHARACTERISTICS IN TURBINE OPERATING REGIME**
Živojin STAMENKOVIĆ, Jasmina BOGDANOVIC-JOVANOVIĆ, Jelena PETROVIĆ, Miloš KOĆIĆ, University of Niš, Faculty of Mechanical Engineering, DRAGAN SVRKOTA, Jaroslav Černi Institute for the development of water resources, Serbia

**O EFIKASNOSTI PUMPI U VODOVODNOM POSTROJENJU MALIH I VELIKIH
GRADOVA SRBIJE / ON THE PUMPING EFFICIENCY IN WATERWORKS OF SMALL
AND MEDIUM TOWNS IN SERBIA**

Slobodan TAŠIN, Aleksandar RACIĆ, University of Novi Sad, Faculty of Technical Sciences, Serbia

16:15-16:45 KAFE PAUZA / COFFEE BREAK

16:45-17:35 *Korišćenje obnovljivih izvora energije – vетар i geotermalna energija*
The use of renewable energy sources – wind and geothermal energy

UVODNA IZLAGANJA (u trajanju od po 30 minuta, sa uključenom diskusijom) /
INTRODUCTORY LECTURES (30 minutes per lecture, discussion included):

SISTEMI KONVERZIJE ENERGIJE VETRA: NAPREDAK, IZAZOVI I BUDUĆI TRENDLOVI /
WIND ENERGY CONVERSION SYSTEMS: PROGRESS, CHALLENGES AND FUTURE
TRENDS

Milutin JOVANOVIĆ, Northumbria University Newcastle, Faculty of Engineering and Environment, Department of Mathematics, Physics and Electrical Engineering, United Kingdom

PREZENTACIJE RADOVA (u trajanju od po 10 minuta, sa diskusijom uključenom) /
PAPER PRESENTATIONS (10 minutes per lecture, discussion included):

**IZBOR OPTIMALNOG MJESTA PRIKLJUČKA VJETROGENERATORA U CILJU
MINIMIZACIJE GUBITAKA U MREŽI / SELECTION OF THE OPTIMAL VALUE OF WIND
GENERATOR POWER IN ORDER TO OBTAIN MINIMAL POWER SYSTEM LOSSES**

Lazar NIKTOVIĆ, Univerzitet Crne Gore, Pomorski fakultet Kotor, Martin ČALASAN, Univerzitet Crne Gore, Elektrotehnički fakultet Podgorica, Montenegro

**PERSPEKTIVA KORIŠĆENJA PLITKE GEOTERMALNE ENERGIJE ZA GREJANJE I
HLAĐENJE ZGRADA U SRBIJI / THE PROSPECTS OF SHALLOW GEOTHERMAL
ENERGY USE FOR HEATING AND COOLING OF BUILDINGS IN SERBIA**

Aleksandar JOKIĆ, Nevenka NIKOLIĆ, Nataša LUKIĆ, Arpad KIRALJ, Bojana IKONIĆ, Marija BOŽIN-DAKIĆ, Jovana GRAHOVAC, Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Serbia

20:00 SVEČANA VEČERA / DINNER CEREMONY

Subota, 22. jun 2019 / Saturday, June 22, 2019

- 09:30-10:20 **Korišćenje obnovljivih izvora energije - solarna
The use of renewable energy sources - solar**

PREZENTACIJE RADOVA (u trajanju od 10 minuta, sa diskusijom uključenom) / PAPER PRESENTATIONS (10 minutes per lecture, discussion included):

KAKO DO VEĆEG KORIŠĆENJA SUNČEVE ENERGIJE U SRBIJI / KAKO HOW TO GET TO GREATER USE OF SOLAR ENERGY IN SERBIA

Miloš KOSTIĆ, Serbia

ANALIZA ZELENIH KROVOVA GRADA NOVOG SADA / GREEN ROOF SURFACES ANALYSIS IN NOVI SAD

Ivana GVOZDENOVIC, Jelena ROVČANIN, Dejan MAVROVIĆ, Dušan MILADINOVIC, JP Urbanizam "Zavod za urbanizam Novi Sad", Serbia

PROCENA POTENCIJALA ZA PROIZVODNJU ELEKTRIČNE ENERGIJE DIREKTNO IZ ELEKTRANE ZA HLAĐENJE I ZAMRZAVANJE POSTROJENJA PRIMENOM FOTONAPONSKIH ĆELIJA / ASSESSMENT OF POTENTIAL FOR ON-SITE ELECTRICITY PRODUCTION FOR COOLING AND FREEZING FACILITIES BY APPLICATION OF PHOTOVOLTAICS

Marko MANČIĆ, Dragoljub ŽIVKOVIĆ, Mirjana LAKOVIĆ-PAUNOVIC, Milena RAJIĆ, Univerzitet u Nišu, Mašinski fakultet, Univerzitet u Prištini, Fakultet tehničkih nauka Kosovska Mitrovica, Serbia

KVALITET ELEKTRIČNE ENERGIJE NA MJESTU PRIKLJUČENJA FOTONAPONSKE ELEKTRANE "EMY" 30 kWp U DISTRIBUTIVNOJ NISKONAPONSKOJ MREŽI NA PODRUČJU OPŠTINE ZEPČE – BiH / QUALITY OF ELECTRICITY AT THE PLACE OF CONNECTION OF PHOTOVOLTAIC POWER PLANT "EMY" 30 kWp IN THE DISTRIBUTION LOW VOLTAGE NETWORK IN THE AREA OF THE MUNICIPALITY ZEPČE – BiH

Sakib JUSIĆ, Elektroprivreda BiH dd Sarajevo – ED Zenica, Zenica, Bosnia and Herzegovina

ANALIZA RADA FOTONAPONSKE ELEKTRANE „EMY“ 30 kWp PRIKLJUČENE NA ELEKTROENERGETSKU DISTRIBUTIVNU NISKONAPONSKU MREŽU NA PODRUČJU OPŠTINE ŽEPČE-BIH / ANALYSIS OF OPERATION OF PHOTOVOLTAIC POWER PLANT „EMY“ 30 kWp CONNECTED TO LOW-VOLTAGE POWER DISTRIBUTION NETWORK IN THE AREA OF THE MUNICIPALITY OF ŽEPČE-B&H

Sakib JUSIĆ, Emir HRNIJĆ, Elektroprivreda BiH dd Sarajevo – ED Zenica, Zenica, Bosnia and Herzegovina

- 10:20-10:45 KAFE PAUZA / COFFEE BREAK

- 10:45-12:15 **Korišćenje obnovljivih izvora energije - biomasa
The use of renewable energy sources - biomass**

PREZENTACIJE RADOVA (u trajanju od 10 minuta, sa diskusijom uključenom) / PAPER PRESENTATIONS (10 minutes per lecture, discussion included):

INDUSTRISKA REVOLUCIJA KORISCENJA OBNOVLJIVIH IZVORA ENERGIJE U SAOBRACAJU / INDUSTRIAL REVOLUTION OF USAGE OF RENEWABLE ENERGY SOURCES IN TRANSPORT SECTOR

Branislava LEPOTIĆ-KOVAČEVIĆ, Serbian Energy Law Association, Dragoslava STOJILJKOVIĆ, University of Belgrade, Faculty of Mechanical Engineering, Belgrade, Serbia

ZASTUPLJENOST OBNOVLJIVI IZVORA ENERGIJE U SVIJETU & MOGUĆNOST ZA NOVA RADNA MJESTA / REPRESENTATION RENEWABLE ENERGY SOURCE IN THE WORLD

& POSSIBILITY FOR NEW WORKING SITES

Isak KARABEGOVIĆ, Univerzitet u Bihaću, Tehnički fakultet, Bosnia and Herzegovina
KONCEPT REŠENJA POSTROJENJA NA BIOMASU U KOMBINOVANOJ PROIZVODNJI ELEKTRIČNE I TOPLITNE ENERGIJE U TE-TO ZRENJANIN / CONCEPTUAL DESIGN OF BIOMASS PLANT IN COMBINED POWER AND HEAT PRODUCTION AT TPP-DHP
Dragan TRTICA JP Elektroprivreda Srbije Beograd, Ogranak Panonske TE-TO Novi Sad, TE-TO Zrenjanin, Serbia

POTENCIJALI I IZAZOVI ZA PROIZVODNju BIOGASA NA IPPC FARMAMA ZA UZGOJ SVINJA U SRBIJI / POTENTIALS AND CHALLENGES FOR BIOGAS PRODUCTION ON IPPC PIG FARMS IN SERBIA

Aleksandar ČOSOVIĆ, Univerzitet u Beogradu, Tehnološko-metalurški fakultet, Serbia
BIORAFINERIJA – KLASIFIKACIJA I POTENCIJAL PROIZVODNJE ENERGIJE / BIOREFINERIES: CLASSIFICATION AND ENERGY PRODUCTION POTENTIAL

Marta TRNINIĆ, Dragoslava STOJILJKOVIĆ, Aleksandar JOVOVIĆ, Goran JANKES, Univerzitet u Beogradu, Mašinski fakultet, Serbia

ISTRAŽIVANJE SPECIFIČNOSTI SAGORJEVANJA PELETA PROIZVEDENIH OD RAZLIČITIH MATERIJALA U MALIM KUĆNIM LOŽIŠTIMA / INVESTIGATION OF COMBUSITON SPECIFICS OF THE PELLETS PRODUCED FROM DIFFERENT MATERIALS IN SMALL HOUSEHOLDS FURNACES

Petar GVERO, Univerzitet u Banjoj Luci, Mašinski fakultet, Bosnia and Herzegovina, Tatjana BOTIĆ, Dijana DRLJAČA, Aleksandra ŠINIK, Faculty of Technology, University of Banja Luka, Bosnia and Herzegovina, Slobodan RAKULJ, Faculty of Mechanical Engineering, University of Banja Luka, Bosnia and Herzegovina

MATERIJALNI I ENERGETSKI BILANS PROCESA PIROLIZE OKLASKA KUKURUZA / MATERIAL AND ENERGY BALANCE IN THE PYROLYSIS PROCESS OF CORN COB

Mirjana ĆERANIĆ, Branka GVOZDENAC UROŠEVIĆ, Vladimir PILIĆ, Univerzitet u Novom Sadu, Fakultet tehničkih nauka, Mirjana STAMENIĆ, Mašinski fakultet, Univerzitet u Beogradu, Serbia

UTVRĐIVANJE GLAVNIH KOMPONENTATA ISPARLJIVE BIOMASE PUTEM STA-MS ANALIZE IDENTIFICATION OF MAIN COMPONENTS OF BIOMASS VOLATILES BY STA-MS ANALYSIS / IDENTIFICATION OF MAIN COMPONENTS OF BIOMASS VOLATILES BY STA-MS ANALYSIS

Miloš RADOJEVIĆ, Dragoslava STOJILJKOVIĆ, Vladimir JOVANOVIĆ, Nebojša MANIĆ, University of Belgrade, Faculty of Mechanical Engineering, Bojan JANKOVIĆ, University of Belgrade, Institute of Nuclear Sciences "Vinča", Department of Physical Chemistry, Serbia

OCENA ŽIVOTNOG CIKLUSA DRVNE BIOMASE / LIFE CYCLE ASSESSMENT OF WOOD BIOMASS

Milica PERIĆ, Dragi ANTONIJEVIĆ, Univerzitet u Beogradu, Inovacioni Centar Mašinskog fakulteta, Mirko KOMATINA, Univerzitet u Beogradu, Mašinski fakultet, Branko BUGARSKI, Marko RAKIN, Univerzitet u Beogradu, Tehnološko-Metalurški fakultet, Serbia

12:30-14:00	OKRUGLI STO: PRAVO U ENERGETICI ČETVRTI ENERGETSKI PAKET PROPISA EVROPSKE UNIJE (ČISTA ENERGIJA ZA SVE EVROPLJANE) FOURTH ENERGY PACKAGE OF EUROPEAN UNION REGULATIONS Moderator: Miloš Kuzman, savetnik u oblasti prava nafte i gasa, NIS
14:00	ZATVARANJE KONFERENCIJE – ZAKLJUČCI / CLOSING CEREMONY – CONCLUSIONS
14:30	RUČAK / LUNCH
Nedelja, 23. jun 2019 / Sunday, June 23, 2019	
9.30	<i>Energetska šetnja inženjera i pravnika do spomenika, a bolje utreniranih do Čigote Energy walk of engineers and lawyers to the monument, and those better trained up to Cigota</i>

ZVANIČAN JEZIK KONFERENCIJE / CONFERENCE OFFICIAL LANGUAGE

ZVANIČNI JEZICI KONFERENCIJE SU SRPSKI I ENGLESKI / THE OFFICIAL LANGUAGES OF THE CONFERENCE ARE SERBIAN AND ENGLISH.

DRUŠTVENI PROGRAM / SOCIAL PROGRAM

- Otvaranje će se održati u sredu, 19. juna u 17:00 u Kongresnom centru Romanija u okviru odmarališta Ratko Mitrović / Opening ceremony, Wednesday, June 19 from 17:00 in Congress Center Romanija within the resort Ratko Mitrovic
- Koktel dobrodošlice će se održati u sredu, 19. juna u 19:30 u Kongresnom centru Romanija / Welcome cocktail, Wednesday, June 19 from 19:30 in Congress Center Romanija
- Svečana večera za sve učesnike će se održati u petak, 21. juna u 20:00h u restoranu "Grand Jezero" / Dinner ceremony for all participants will be held on Friday, June 21 at 20:00 in Restaurant "Grand Jezero"

KOTIZACIJA / REGISTRATION FEE

Tip kotizacije / Type of fee	Cena / Price
Za učesnike konferencije / Participants	160 €
Za autore radova i mlade istraživače / Paper authors and young researchers *	120 €
Za studente / Students **	60 €

* do 35 godina starosti / until the age of 35

** uz potvrdu sa fakulteta o redovnom studiranju, do 30 godina starosti / Followed with a faculty verification of regular studies, till the age of 30

PDV nije uključen u prikazane cene / VAT is not included in given prices.

Učesnici uz kotizaciju dobijaju / Registration fee includes:

- Pravo učešća na svim sesijama i prezentacijama konferencije
- Zbornik apstrakata
- DVD konferencije sa radovima autora i prezentacijama sponzora
- Koktel dobrodošlice
- Zajednička večera
- Ostale konferencijske materijale
- The right to participate in all sessions and conference presentations
- Book of Abstracts
- CD with conference papers and presentations of sponsors
- Welcome Cocktail
- Dinner Voucher
- Other conference materia

REZERVACIJA SMEŠTAJA / ACCOMMODATION RESERVATION

Cene su date po osobi i po danu i obuhvataju pun pansion, osiguranje i boravišnu taksu / Prices are given per person and per day and cover the full board, insurance and board fee:

SOBA / ROOM	Cena / Price
Jednokrevetna / Single room	40,00€
Jednokrevetna francuski ležaj / Single room french bad	45,00€
Dvokrevetna / Twin room	34,00€
Apartman jednokrevetni / Ssingle apartment	50,00€
Apartman za dvokrevetni / Twin apartment	40,00€

Usluga 19. juna počinje večerom, a 22. juna završava se ručkom / Service starts on June 19 with dinner and ends on June 22 with lunch.

PDV nije uključen u prikazane cene / VAT is not included in given prices.

Kontakt / Contact

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