DREN



NEW FORMAT

2020

15th EDITION WEC CENTRAL & EASTERN EUROPE ENERGY FORUM

7-10 SEPTEMBER 2020

ONLINE

ENERGY TRANSITION IN SOUTH EAST EUROPE: OPPORTUNITIES, CHALLENGES, PERSPECTIVES

7th | 8th |

QUO VADIS ENERGY SECTOR? REGIONAL ENERGY DAY 9th 10th

DISCUSSION SESSION I SCIENTIFIC PAPERS DISCUSSION SESSION II SCIENTIFIC PAPERS

7-10 SEPTEMBER

PRELIMINARY PROGRAMME

THIS YEAR, THE 15TH EDITION OF FOREN, ORGANIZED BY WEC/RNC WILL BE HELD ONLINE, DURING 7-10 SEPTEMBER 2020.

The decision was made due to the extension of the alert state on the Romanian territory caused by the spread of SARS-CoV-2 and the restrictions imposed on organizing scientific events.



ABOUT FOREN

The WEC Central & Eastern Europe Energy Forum, organized every two years, is the most important regional event and exhibition hosted by the Romanian National Committee of the World Energy Council (WEC/RNC).

Since 2011, FOREN is recognized as the WEC's official regional meeting for Central and Eastern Europe. As a major event in WEC in 2020, it is aimed to support the WEC's mission to inform the energy debate and to create dialogue on energy policies for a sustainable energy future.

Thanks to the participation of a large number of decision makers and of the best energy specialists in the region, FOREN is a powerful platform for dialogue, communication and networking among the countries of the CEE region, meant to address and analyse the major issues and energy trends, while providing relevant recommendations to governmental, corporate and academic decision makers, for a sustainable future in the world. FOREN also represents an ideal platform for the regional cooperation, aimed at improving energy security.



FOREN 2020 PROGRAMME

The 15th Edition of the Forum - FOREN 2020, with the theme "Energy transition in South East Europe: Opportunities, Challenges and Perspective", will focus on the main challenges, developments and opportunities of the CEE power industry for a sustainable development. The Forum attracts top oficials from ministers, governments, academia, energy leaders from national and European international companies, experts in energy and environment issues, representatives of media.

The Programme of the Forum will include speeches from noteworthy policy makers and businessmen in the CEE region, talks on the latest subjects that are important to the energy field and technical papers presented within the two Discussion Sessions.

A main feature of the FOREN 2020 agenda is the discussion sessions during which the most provocative concepts will be presented.





QUO VADIS ENERGY SECTOR?

TOPICS

SESSION I - ELECTRICITY

Energy Transition in Europe / Romania:

> Renewable - The second wave of development. How the energy storage projects will be developed in parallel;
> Digitalization technologies - more actual strategic direction;
> COVID-19: Accelerate / Delay the Climate Change Actions in Europe / Romania?
> Energy Trilemma - A WEC's tool including into triangle: Energy Security, Energy Equity and Environmental Sustainability.

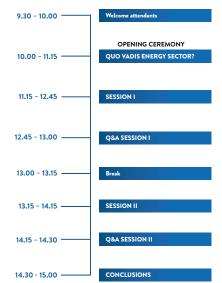
SESSION II - OIL & GAS

Energy Transition in Europe / Romania:

> The role of Natural gas = The fuel of transition. How far the Hydrogen technologies are for using?

- > Innovation Technologies Power to "X" concept;
- > COVID-19: Accelerate / Delay the Climate Change Actions in Europe / Romania?

7th SEPTEMBER



REGIONAL ENERGY DAY

DISCUSSION SESSION I

ENERGY TRANSITION IN THE REGION. FACTS AND TARGETS, STRATEGIC ISSUES

SESSION I

> Green Deal - the most important challenge of Europe for the coming 30 years.
 Duties for East European countries. Political, technological and Financial Issues;
 > Are governments and regional (CEE) and national authorities actions in compliance

TOPICS

> Energy resources balance: primary resources (coal, oil, gas), renewable energy sources, energy efficiency.

SESSION II

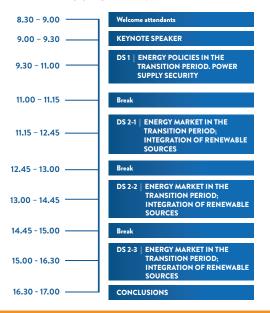
> World Energy Grand Transition. WEC Instruments and Scenarios applied in Central and East Europe;

> Central and Easter Europe energy market integration: present and future;

> New approaches in the matter of the four D (decarbonisation, digitalisation, deregulation, decentralization);

> Dinamic Resilience - Adaptive strategies for risk analysis including: Extreme Weather, Cyber risks and Geo-spatial analysis.

9th SEPTEMBER



TOPICS

DS 1 | ENERGY POLICIES IN THE TRANSITION PERIOD. POWER SUPPLY SECURITY

> Long and medium term scenarios for the development of the energy sector in the region; Implementation of the UE regulations regarding the development and operation of the transmission grids for the electricity internal energy market in Europe; Europe Energy Union and the integrated plans for energy and environment.

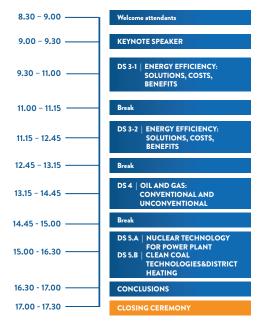
DS 2 | ENERGY MARKET IN THE TRANSITION PERIOD; INTEGRATION OF RENEWABLE SOURCES

> Perspectives on market design; Evolution of the natural gas market; Load forecasting; Performance of energy market; Balancing markets; Ancillary Services Market; The green certificates market; Increased penetration of distributed energy resources and energy market; Energy storage in the energy systems; New hydro technologies.

DISCUSSION SESSION II

SCIENTIFIC PAPERS

10th SEPTEMBER



TOPICS

DS 3 | ENERGY EFFICIENCY: SOLUTIONS, COSTS, BENEFITS

> Regional energy efficiency; smart cities; Promoting high efficiency cogeneration; Reduction of losses in transport and distribution networks; Modern technologies, with high energy efficiency, in the final consumption sectors; Market development for energy services; The role of scientific research in increasing energy efficiency; Improving the professional training of energy managers, energy auditors, other field specialists; Increase public awareness (particularly among young people) on energy efficiency issues; Role of schools, state institutions, media; The role of tariffs, subsidies, financial and fiscal incentives; The costs of energy efficiency; Energy-efficient and environmentally friendly solutions for the production, transport and distribution of heat (heat);"Decarbonizing" the heating of localities by using renewable energy sources; Cogeneration versus individual heating in urban agglomerations.

DS 4 | OIL AND GAS: CONVENTIONAL AND UNCONVENTIONAL

> Conventional and unconventional gas and oil, exploration and exploitation; Resources and new exploration perimeters; Modern technologies and equipment in upstream, middle stream, downstream operations; Storage, transport and distribution of gas, oil and petroleum products; Transport infrastructure, digitalization and intelligent.

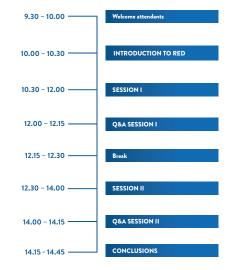
DS 5A | NUCLEAR TECHNOLOGIES FOR POWER GENERATION

> The EU Energy Union and the role of nuclear power plants; New nuclear technologies for electricity generation; The economic impact of the projects in the nuclear field; Models of scenarios of evolution of the nuclear field in the energy system.

DS 5B | CLEAN COAL TECHNOLOGIES & DISTRICT HEATING

> Clean coal technologies; Coal resources; Modern methods of coal mining; Environmental challenges; Capture and storage of carbon dioxide; National potential for exploitation and efficient use of local coal resources; The future of coal in Europe.

8th SEPTEMBER



OPENING CEREMONY

QUO VADIS ENERGY SECTOR? Monday, September 7th 2020

DAY 1



SPEAKERS



IULIAN IANCU Chairman Commission for Industries and Services Romanian Chamber of Deputies

Chairman WEC-RNC



ANGELA WILKINSON Secretary General World Energy Council



IOAN DUMITRACHE Secretary General Romanian Academy



BOGDAN CHIRIȚOIU Member of the Board of Directors ACER President Romanian Competition Council



VIRGIL POPESCU

Minister Ministry of Economy, Energy and Business Environment

> DUMITRU CHIRIȚĂ President NARE



NICOLAE TURDEAN President NAMR

> ION LUNGU President AFEER



TUDOR CONSTANTINESCU Principal Advisor to the Director General for Energy European Commission

MODERATOR

SESSION I - ELECTRICITY

SPEAKERS



ONDREJ SAFAR CEO CEZ Romania



DANIEL BURLAN President CE Oltenia



CORINA POPESCU CEO Electrica SA



CARLO PIGNOLONI, CEO & Country Manager ENEL Romania



BOGDAN BADEA, President Of Board of Directors Hidroelectrica



Nuclearelectrica



CĂTĂLIN NIȚU Directorate Chairman Transelectrica

SESSION II - OIL & NATURAL GAS SPEAKERS



ERIC STAB (TBC) CEO ENGIE Estern Europe, Chairman&CEO ENGIE Romania



ANCA DRAGU Deputy Director General E.ON Romania



ALEXANDRU MAXIMESCU Vice President of Regulation and Corporate Public Affairs OMV Petrom



ADRIAN VOLINTIRU CEO Romgaz



ION STERIAN CEO Transgaz

REGIONAL ENERGY DAY

ENERGY TRANSITION IN THE REGION. FACTS AND TARGETS, STRATEGIC ISSUES

Tuesday, September 8th 2020

INTRODUCTION TO RED

KEYNOTE SPEAKER

EINARI KISEL Regional Manager for Europe, WEC - Humanising European energy transition

SESSION I

MODERATOR

SPEAKERS



NICULAE HAVRILEŢ Secretary of State Ministry of Economy, Energy and Business Environment

SESSION II

MODERATOR

SPEAKERS



CRISTIAN BĂDESCU Special Representative MAE



CORNELIU BODEA CEO ADREM President CRE

IOAN DAN GHEORGHIU Vice-chairman

WEC/RNC



PETRE STROE CEO MET Romania



GIANFRANCO CHICCO Prof.phd. Politecnico di Torino

CRISTIAN SECOȘAN

CEO

SIEMENS Romania & Moldova



DAY 2

CĂTĂLIN STANCU Associate Senior Expert Horváth & Partners



BURKHARD VON KIENITZ, Vice President COO Processes E.ON Germany



EINARI KISEL Regional Manager for Europe World Energy Council



VALERIU BINIG **Regulatory and Antitrust Affairs Director** ENEL Romania



SORIN PETRE Partner PwC



JEAN EUDES MONCOMBLE Secretary General WEC France



MIHNEA CRĂCIUN Deputy Director, Romania EBRD



MARIAN NĂSTASE Chairman and non-executive member of the Board of Directors ALRO Slatina





VIOREL GAFITA President ROMELECTRO





VICTOR IONESCU CEO OPCOM





DISCUSSION SESSION I

Wednesday, September 9th 2020

DAY 3

KEYNOTE SPEAKER PRESIDIUM

(TBN)

Chariman	Nicolae GOLOVANOV, Prof.univ.dr.eng., UPB
Member	Gheorghe INDRE, WEC/RNC
Member	Virgil MUȘĂTESCU, Prof.univ.dr.eng., WEC/RNC
Member	Alexandru PĂTRUȚI, WEC/RNC

DS1

Introduction: Gheorghe INDRE, WEC/RNC

ENERGY POLICIES IN THE TRANSITION PERIOD. POWER SUPPLY SECURITY

No.	Title of paper	Authors	Company
		Marian DOBRIN,	
	SMART STRATEGIES FOR THE TRANSITION IN COAL INTENSIVE REGIONS.	Ion Eduard CHIŢESCU,	
		Bianca LEPĂDATU,	
1.1	CASE STUDY: JIU VALLEY MICRO-REGION – STEPS FORWARD UNDER TRACER	Cristina Ioana DIMA,	Asociatia Institutul Social Valea Jiului - AISVI
	EUROPEAN PROJECT	Gloria POPESCU,	
		Sabina IRIMIE,	
		Emilia DUNCA	
1.2	ELECTRICITY REVIVAL FROM DARK TO BRIGHT	Diaconu Ciprian	CNTEE Transelectrica S.A.
	TECHNICAL POLICY REGARDING THE ACTIVE HEALTH CENTER OF CNTEE	Stefan-Bogdan Leu	
1.3	TRANSELECTRICA SA	Cătălin Lişman	CNTEE Transelectrica S.A.
		Oana Lebedov	
i i	RENEWABLE SOURCES COMPETITIVENESS TO COVER R. OF MOLDOVA	Comendant Ion	
1.4	ELECTRICITY DEMAND	Prepelita Iulia	Institute of Power Engineering (R. Moldova)
		Turcuman Lilia	
		Petrică Rădan	
		Florin-Emilian Ciaușiu	
1.5	ELECTRICITY PRICE FORECAST USING MACHINE LEARNING	Bogdan-Ştefan Achim	Tractebel Engineering S.A.
		Andrei Stan	
		Marius-Eugen Tiboacă	
1.6	ABOUT "HIDDEN" CO2 EMISSIONS	Tutuianu Ovidiu	CNR-CME
		Mihai Tirsu	
1.7	DISTRIBUTED GENERATION – OPORTUNITY TO INCREASE ENERGY SECURITY	Dmitrii Zaitev	Institute of Power Engineering (R. Moldova)
		Irina Golub	
		Dumitru Cernușcă	
1.8	MODELING OF DISTRIBUTED GENERATION	Radu Dumitru Pentiuc	Stefan cel Mare University of Suceava
		Eugen Hopulele	
	DESIGN OF A RENEWABLE ENERGY SUPPLY SYSTEM FOR A STUDENT	Cernușcă Dumitru	
1.9		Pentiuc Radu Dumitru	Stefan cel Mare University of Suceava
		Rata Brindusa Mihaela	
1.10	IT'S TIME FOR OFFSHORE WIND AND OFFSHORE HVDC AT THE BLACK SEA	Iulian Oleș	POLITEHNICA University of Bucharest
	COMPORTAMENTUL SERIILOR LUNGI DE DATE DE MĂSURARE. PROGNOZE		
1.11	CARE INCLUD POSIBILITĂȚI.	Iordache Loghin	CNTEE Transelectrica SA

DS 2

Introduction: Nicolae GOLOVANOV, Prof.univ.dr.eng., UPB

ENERGY MARKET IN THE TRANSITION PERIOD; INTEGRATION OF RENEWABLE SOURCES

No.	Title of paper	Authors	Company
2.1	THE EVOLUTION OF THE REGULATORY FRAMEWORK REGARDING THE BALANCING MARKET AND THE FINANCIAL IMPLICATIONS	Constantinescu Silvia; Vasilevschi Victoria; Nedelcu Emil	Operatorul Pieței de Energie Electrică și de Gaze Naturale "OPCOM" S.A.
2.2	IMPLEMENTATION OF CROSS-ZONAL INTRADAY CAPACITY PRICING	Miclea Andrei; Jderu Ionut; Ion Georgeta	Operatorul Pieței de Energie Electrică și de Gaze Naturale "OPCOM" S.A.
2.3	EUROPEAN SHORT-TERM ELECTRICITY MARKET: PLANNING, STATUS, PERSPECTIVES	Acatinca Marius; Lupului Cosmin; Erimescu Andrei; Tudorache Cristian; Ion Georgeta	Operatorul Pieței de Energie Electrică și de Gaze Naturale "OPCOM" S.A.
2.4	THE SOLUTION IMPLEMENTED AT OPCOM LEVEL TO SUPPORT ENERGY INVESTMENTS THROUGH LONG-TERM PPAS	Constantinescu Mihaela; Utulete Andreea; Noje Andrei	Operatorul Pieței de Energie Electrică și de Gaze Naturale "OPCOM" S.A.
2.5	A PEER-TO-PEER ENERGY TRADING MODEL FOR SMES	Andreea Badicu George Suciu Cristian Beceanu	BEIA Consult International
2.6	ECONOMC ASPECTS OF PROSUMERS USING PHOTOVOLTAIC INSTALLATION AND APPLYING THE NET METHOD SUPPORT SCHEME	Lupu Mihail	Institute of Power Engineering (R. Moldova)
2.7	TRENDS IN THE EUROPEAN RESEARCH IN THE DOMAIN OF HEATING AND COOLING SYSTEMS WITH GEOTHERMAL HEAT PUMPS – RESEARCH PROJECTS FINANCED BY THE EUROPEAN COMMISSION (CHEAP-GSHPS AND GEO4CIVHIC)	Gavriliuc Robert Cucueteanu Doina Catalina Tiberiu	Romanian Geoexchange Society
2.8	PROVIDING GREATER FLEXIBILITY FOR HIGH PENETRATION RENEWABLE INTEGRATION	Cristina Efremov	Technical University of Moldova
2.9	MODELLING OF THE NATIONAL ENERGY SYSTEM DEVELOPMENT SCENARIOS	Constantin Borosan Cristina Efremov	Technical University of Moldova
2.10	INCREASING FLEXIBILITY OF THE NATIONAL ENERGY SYSTEM BY USINGBUILDING UP HYDRO PUMPED STORAGE PLANTS	Valentin Arion Cristina Efremov	Technical University of Moldova

2.11	USE OF LI-ION BATTERIES FOR INTERNAL SERVICES IN TRANSELECTRICA SUBSTATIONS AND RELATED CONSUMPTION FLEXIBILIZATION	Oana-Adriana Lebedov Catalin-Lucian Chimirel Ştefan-Bogdan Leu	CNTEE Transelectrica S.A.
2.12	RELIABILITY AND MAINTENANCE OF WIND POWER SYSTEMS	Alexandru Marius Viisoreanu Alina Viisoreanu-Rachiteanu	POLITEHNICA University of Bucharest
2.13	ANALYSIS OF DIFFERENT METHODOLOGIES FOR THE CALCULATION OF POLLUTANT EMISSIONS FROM VEHICLES	Elena Bykova Tatiana Kirillova Irina Vasilyev	Institute of Power Engineering (R. Moldova)
2.14	CASE STUDY REGARDING THE USE OF FINEAMIN TREATMENT IN THE FEED WATER CIRCUIT FOR THE TECHNOLOGICAL STEAM GENERATORS OF AMMONIA PRODUCTION	Lapadat Alin Barbu Constantin	BLUE NEON S.R.L.
2.15	FROM SMART METERS TOWARDS SMART GRIDS	Lascu Cristina Elena	CNR-CME
2.16	CHARACTERISTICS OF TWO CHANNEL STATIC FREQUENCY CONVERTER	Tirsu Mihai Zaitev Dimitrii Calinin Lev Golub Irina Caloshin Danila	Institute of Power Engineering (R. Moldova)
2.17	THE IMPACT OF WATER TREATMENT IN THE ENERGY SECTOR ON THE ENVIRONMENT	Irina Alina Chera - Anghel Loredana Popescu Florentina Condrea Constantin Barbu	INCDE - ICEMENERG
2.18	INVESTIGATION OF STEADY-STATE ASYMMETRIC MODES OF FOUR-WINDINGS THREE-LEG CONVERSION TRANSFORMER WITH EXTENDED DELTA CONNECTION	Valeriu Bosneaga Victor Suslov	Institute of Power Engineering (R. Moldova)
2.19	PROSUMERS: STANDARDS' REQUIREMENTS AND THE SAFE OPERATION OF THE POWER DISTRIBUTION NETWORK	Craciun Daniel	SDEE MUNTENIA NORD S.A.
2.20	SURGE ARRESTER FOR PROTECTION AGAINST OVERVOLTAGE OF HIGH VOLTAGE POWER LINES	Alina Viisoreanu-Rachiteanu Alexandru Marius Viisoreanu	POLITEHNICA University of Bucharest
2.21	WHEELCHAIR WITH SOLAR PANELS	Luminita Ioana Vlaicu Angela Repanovici	FEL Romania
2.22	POSIBILITIES FOR REALIZATION AND TECHNOLOGICAL PROBLEMS OF HYDROELECTRIC POWER PLANTS WITH PUMP STORAGE IN ROMANIA	Dadu Adriana	Hidroelectrica S.A.
2.23	THE IMPORTANCE OF THE ANALYSIS OF TECHNOLOGICAL RISKS IN PROJECT MANAGEMENT OF INVESTMENTS IN THE HYDROPOWER FIELD	Pricopie Gabriela Nedelcu Isabela Dadu Adriana	Hidroelectrica S.A.
2.24	WHEELCHAIR WITH SOLAR PANELS	Luminita Ioana Vlaicu Angela Repanovici	FEL Romania
2.25	FROM CONCEPT TO REALITY: ELECTRONIC DEFECT REGISTER	Cornoiu Marius Stoian Valentin Costan Darius	Hidroelectrica S.A.
2.26	ZERO HOUR FOR CLIMATE ACTION. INTELLIGENT DECISION-MAKING FOR SUSTAINABLE MANAGEMENT OF ENERGY	Cretu-Sârbu Claudiu-Ionuț	ELCEN Bucuresti
2.27	THERMOGRAVIMETRIC ANALYSIS AND KINETICS OF AGRICULTURAL BIOMASS	Bulmau Cora	POLITEHNICA University of Bucharest
2.28	EV CHARGING STATION INFRASTRUCTURE SOLUTIONS FOR A BETTER FUTURE	Irina Bancescu Maria-Simona Raboaca	INCE - Academia Romana

DISCUSSION SESSION II

Thursday, September 10th 2020

KEYNOTE SPEAKER PRESIDIUM

DS 3

DAY 4

THE SIDION	
Chariman	Niculae Napoleon ANTONESCU, Prof.univ.dr.eng., UPG Ploiești
Member	Vasile RUGINĂ, WEC/RNC
Member	Ionuț PURICA, Prof.univ.dr.eng., Romanian Academy
Member	Lazăr AVRAM, Prof.univ.dr.eng., UPG Ploiești

(TBN)

Introduction: Vasile RUGINĂ, WEC/RNC

ENERGY EFFICIENCY: SOLUTIONS, COSTS, BENEFITS

Ne	Tials of some	Authors	Company
No.	Title of paper	Authors	Company
	NATIONAL INITIATIVES REGARDING THE ADOPTION OF INNOVATIVE		
	MEASURES TO REDUCE ENERGY POVERTY, IN THE CONTEXT OF ARTICLE 7 OF	Vasile Camelia	
3.1	THE EUROPEAN ENERGY EFFICIENCY DIRECTIVE - WORK DONE UNDER THE	Brunete Daniela	ISPE PROIECTARE ȘI CONSULTANȚĂ S.A.
	EUROPEAN SOCIALWATT PROJECT		
		Thibault Gentil	
		Florin-Emilian Ciausiu	
	DIGITAL SOLUTIONS FOR ENERGY EFFICIENCY AND DECARBONIZATION	Dimitri Tomanos	
3.2	STRATEGIES	Vincenzo Giordano	Tractebel Engineering S.A.
	STRATEGIES		
		Bogdan Achim	
		Elena Novac	
		Vladimir Berzan	
3.3	PHENOMENOLOGICAL MODEL OF THE COGENERATION HEATING PLANT	Elena Bykova	Institute of Power Engineering (R. Moldova)
5.5	PRENOMENOLOGICAL MODEL OF THE COGENERATION HEATING PLANT	Mihail Gritsay	Institute of Power Engineering (R. Moldova)
		Mihail Cernei	
	ASPECTS OF THE STUDY OF THE INCREASE OF THE ENERGY EFFICIENCY IN		
		Diga Silvia-Maria	University of Craiova, Dept. of Electrical, Energetic
3.4	THE OPERATION OF THE INDUCTION MOTORS WITHIN THE ANCILLARY	Diga Nicolae	and Aerospace Engineering
	SERVICES OF A THERMOELECTRIC POWER PLANT	Navrapescu Valentin	
		Murdid Ecaterina	
3.5	CONTRIBUTION OF SYNCHRONIZED MEASUREMENTS TO ENERGY	Stratan Ion	Technical University of Moldova
5.5	EFFICIENCY OF TWO-WINDING POWER TRANSFORMERS	Seremet Cristian	rectificar oniversity of Moldova
		Remus Dinculescu	
3.6	ANALYSIS OF THE TECHNICAL CONDITION OF RET TRANSFORMERS	Mihai Marcolț	CNTEE Transelectrica S.A.
5.0	AGET OF OF THE LEGITIGAE CONDITION OF REL TRANSFORMERS	Traian Chiulan	
		Sandor Kovacs	
		Anca-Alexandra Săpunaru	
	ACTIVE DOWED TRANSFER DETWEEN TWO ENERGETIC NETWORKS OF	Violeta-Maria Ionescu	
	ACTIVE POWER TRANSFER BETWEEN TWO ENERGETIC NETWORKS, OF	Ovidiu Frătilă	
3.7	DIFFERENT WORKING FREQUENCIES, USING A VARIABLE FREQUENCY	,	POLITEHNICA University of Bucharest
	TRANSFORMER	Mădălina-Andreea Lupașcu	
		Mihai Octavian Popescu	
		Claudia Laurența Popescu	
		Violeta-Maria Ionescu	
	ELECTROMAGNETIC INTERACTION BETWEEN THE POWER DISTRIBUTION GRID	Anca-Alexandra Săpunaru	
3.8		Mădălina-Andreea Lupașcu	POLITEHNICA University of Bucharest
	AND THE HV SYSTEM OF AN ELECTRIC VEHICLE	Mihai Octavian Popescu	,
		Claudia Laurența Popescu	
		Ionut Purica	
	MODELS FOR NONLINEAR DECISIONS OVERVIEW AND 2 CASE EXAMPLES IN		
3.9		Liviu Lucian Albu	Institute for Economic Forecasting
	FINANCE AND ENERGY	Marioara lordan	
		Sorin Dinu	
3.10	THE IMPACT OF INDIVIDUAL THERMAL STATIONS ON THE ENVIRONMENT	Tirsu Mihai	Institute of Power Engineering (R. Moldova)
		Tirsu Mihai	
2.11	SYNCHRONOUS MULTI-ZONE SPACE-VECTOR MODULATION FOR CONTROL	Oleschiuc Mihai	
3.11	OF DRIVE CONVERTERS OF TRANSPORT SYSTEMS: A SURVEY	Galbura Victor	Institute of Power Engineering (R. Moldova)
		Uzun Mihail	
-		Niculescu Filip	
3.12	MARINE GAS TURBINE FOR EFFICIENT SHIP PROPULSION	Vasile Mirela-Letitia	INCDT Comoti
-			
		Andreea-Mădălina Lupașcu	
	INCREASE OF ENERGY EFFICIENCY OF ELECTRICALLY DRIVEN DRILLING	(Oprea)	
3.13	INSTALLATIONS BY VALORISING THE BRAKING REGIME OF THE DRAW WORKS	Violeta-Maria Ionescu	POLITEHNICA University of Bucharest
5.15		Ion Potârniche	. SETENTICA ONVERSILY OF DUCHATEST
	UPON DESCENDING THE PIPE LINE	Valentin Năvrăpescu	
		Anca-Alexandra Săpunaru	
		Cilianu Marian	
		Nastase Marian	
	AP12 LE - PROJECT FOR REDUCING THE ENERGY CONSUMPTION AND	Gheorghe Dobra	
3.14		-	ALRO S.A.
	IMPROVE THE ENERGY EFFICIENCY OF THE ELECTROLYSIS POTS	Fota lion	
		Mihaescu Ion	
		Mircescu Laurențiu	
		Iulian VLĂDUCĂ, Sorin	
	RESEARCH ACTIVITY IN AIR AND OTHER GASES COMPRESSION AND ENERGY	TOMESCU, Mircea Dan	
3.15		IONESCU, Răzvan	СОМОТІ
	STORAGE	NEDELCU, Sorin POPESCU,	
		Ionel ILIE	
		IONELILLE	
	TURBINE EFFICIENCY DETERMINATION IN HYDROPOWER PLANTS -	Purece Cristian	
3.16		Adam Adrian	INCDE - ICEMENERG
	PRACTICAL APPLICATION FOR A CASCADE OF THREE HYDROPOWER PLANTS	Adam Adrian	
	DEO MILESTONES IN SMART CRID (SMART METERING SOLUTIONS, SREE		
3.17	DSO MILESTONES IN SMART GRID / SMART METERING SOLUTIONS. SDEE	Gheorghe Gabriel	SDEE MUNTENIA NORD S.A.
0.17	MUNTENIA NORD EXPERIENCE	Craciun Daniel	
		Lilica Corlan	
3.18	AN EFFICIENT HARMONIC METHOD FOR ANALYSIS OF NONLINEAR CIRCUITS		INCDE - ICEMENERG
		Cristian Purece	L

OIL AND GAS: CONVENTIONAL AND UNCONVENTIONAL

No.	Title of paper	Authors	Company
4.1	THE GEOTHERMAL GRADIENT ANALYSIS FROM THE MOESIAN PLATFORM	Vlasceanu Costin-Viorel Stan Marius Alecu Georgeta	Petroleum and Gas University of Ploiesti
4.2	VIBRATION ANALYSIS IN THE PROCESS OF OPERATION A INSTALLATIONS AND MACHINES FROM THE OIL INDUSTRY	Mihail Minescu Marius Stan Valentin-Paul Tudorache Niculae-Napoleon Antonescu Alexandru Stan	Petroleum and Gas University of Ploiesti
4.3	ELEMENTS FOR THE PREVENTING AND COMBATING CORROSION TO CYLINDRICAL METAL TANK FOR DESTINED STORAGE OF LIQUID HYDROCARBONS	Valentin Paul Tudorache Marius Stan Lazăr Avram Niculae Napoleon Antonescu	Petroleum and Gas University of Ploiesti
4.4	ANALYSIS OF THE RISKS OF THE EXPLOITATION OF THE NEW GAS DISCOVERY IN THE BLACK SEA	Marius Stan Valentin Paul Tudorache Lazăr Avram Niculae Napoleon Antonescu	Petroleum and Gas University of Ploiesti
4.5	ELEMENTS CONSTITUENT FOR THE DESIGN OF A RISER SYSTEM IN AREAS DEEP WATER AND EXTREME DEEP WATER APPLIED FOR OFFSHORE DRILLING	Marius Stan Valentin Paul Tudorache Lazăr Avram Mohamed Iyad Al Naboulsi Claudiu Tănasă Georgeta Alecu	Petroleum and Gas University of Ploiesti
4.6	ENERGY IMPROVEMENT OF AN OIL INJECTED SCREW COMPRESSOR SKID	Ştefan Alexandru ŞERBAN, Sorin Gabriel TOMESCU, Iulian VLĂDUCĂ, Sebastian VOICU	СОМОТІ
4.7	DETERMINATION OF FOAMS AND THE CONGELATION POINT OF MIXED SOLUTIONS FOR EVACUATE OF THE LIQUIDS FROM THE BOTTOM OF THE WELL THE WITH AID OF AUTOMATED DEVICES INTRODUCTION FOAMING ON THE WINTER PERIOD	Horatiu Raul Olar Lazăr Avram Marius Stan Valentin Paul Tudorache Petru GHERMAN	Petroleum and Gas University of Ploiesti
4.8	THE CHALLENGES AND SOLUTION OF IMPLEMENTING A LEAK DETECTION SYSTEM ON A COMPLEX CRUDE OIL PIPELINE NETWORK IN ROMANIA	Smith Harry McNeil Kirsty Record Tom Dumitran Cosmin Buzatu Dan Iliescu Georgian	ATMOS International Ltd.
4.9	GAS MARKET OF THE REPUBLIC OF MOLDOVA BY 2030: CHALLENGES AND OPPORTUNITIES	Timofte Natalia Timofte Ilie	Technical University of Moldova
4.10	INFLUENȚA DIFICULTĂȚILOR TEHNOLOGICE ALE SONDELOR ASUPRA POTENȚIALULUI ENERGETIC AL ZĂCĂMINTELOR DE GAZE NATURALE	Prof.univ.dr.ing. Lazăr AVRAM Drd.ing. Diana-Andreea LUPU	Universitatea Petrol-Gaze din Ploiești SNGN ROMGAZ SA

DS 5 A

Introduction: Ionuț PURICA, Prof.univ.dr.eng., Romanian Academy

NUCLEAR TECHNOLOGIES FOR POWER GENERATION

No.	Title of paper	Authors	Company
5.A.1	THE CONTRIBUTION OF NUCLEAR POWER IN THE FUTURE ENERGY MIX -	Teodor Chirica	
	EUROPEAN AND NATIONAL PERSPECTIVES	Lavinia Rizea	Nuclearelectrica
5.A.2	CONCEPTUAL DESIGN AND LAYOUT OF THE COOLING TOWERS NECESSARY TO REMOVE HEAT FROM THE CONDENSER SECONDARY CIRCUIT OF THE ALFRED DEMONSTRATOR REACTOR	Nita Pavel Iulian Pancef Rodica	RATEN CITON
5.A.3	THE DEVELOPMENT OF THE RESEARCH INFRASTRUCTURE IN SUPPORT OF ALFRED DEMONSTRATOR IMPLEMENTATION IN ROMANIA	Constantin Marin Grasso Giacomo Tarantino Mariano Agostini Pietro Caramello Marco Frignani Michele Alemberti Alessandro Turcu Ilie Paunoiu Constantin Toma Alexandru Diaconu Daniela Nitoi Mirela Apostol Minodora Gugiu Daniela	RATEN ICN
5.A.4	FAILURE ANALYSIS AND PREVENTION IN NPP METALLIC STRUCTURES AND COMPONENTS: CASE STUDY	Manuela Fulger Maria Mihalache Dumitra Lucan Lucian Velciu	RATEN ICN
5.A.5	RADIATION EFFECTS ON THE PROPERTIES OF CONCRETE USED IN NUCLEAR POWER PLANTS	Popa Andrei Pantazi Doina Nistor Constantin	RATEN - CITON
5.A.6	ESTIMATION OF THE RADIONUCLIDE INVENTORIES PRODUCED IN THE STRUCTURAL MATERIALS OF THE REACTOR CORE AT THE END OF THE OPERATING LIFETIME	Florescu Gabriela Pantazi Doina Popa Andrei Nistor Constantin	RATEN - CITON

5.A.7 5.A.8	ASPECTS CONCERNING THE OPTIMIZATION OF PROTECTION AGAINST IONIZING RADIATION DURING REFURBISHMENT OUTAGE OF UNIT 1 CERNAVODA NPP IN VIEW OF LONG-TERM OPERATION ASSESSMENT OF THE TREATMENT CAPABILITY AND OPTIONS TO ENHANCE THE PERFORMANCE OF THE DECONTAMINATION SYSTEM OF AQUEOUS RADIOACTIVE WASTE FROM CERNAVODA NPP	Ionela Ramona Aranghel Gheorghe Staicu Nuşa Mădgălin Simona Măchiță Mirela Dulama Marius Iordache Liliana Samson Alexandru Nedelcu Viorel Tobosaru	RATEN - CITON RATEN ICN
5.A.9	MECHANICAL FATIGUE TESTS OF SEU-43 FUEL BUNDLE CLADDING AT 400°C	Valentin Olaru Elena Matei Alexandru Nitu Livia Stoica Denisa Toma Mirela Matei	RATEN - ICN Pitesti
5.A.10	SMR IMPLEMENTATION IN ROMANIA. SITTING CHALLENGES	Nicolae Rodica Teodorescu Mihaela Simion Simona	RATEN - CITON
5.A.11	LONG TERM ASSESSMENT OF NUCLEAR TECHNOLOGY PENETRATION USING MESSAGE - THE CASE OF ROMANIA	lonut Purica L.L.Albu M.lordan S.Dinu Eugen Bancheş Ilie Turcu Daniela Diaconu	Institute for Economic Forecasting
5.A.12	COMPARISON BETWEEN FEMAXI-6 AND TRANSURANUS PREDICTIONS REGARDING MOX FUELS BEHAVIOUR	Roman Mihaela-Roxana Ionescu Dragos Victor Olteanu Gheorghe	RATEN - ICN Pitesti

DS 5 B

Introduction: Ovidiu ȚUȚUIANU, WEC/RNC

CLEAN COAL TECHNOLOGIES & DISTRICT HEATING

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5.5.1	THE IMPORTANCE OF MAINTAINING OLTENIA'S LIGNITE PRODUCTION FOR	Predoiu Ionuț Cosmin	University of Petrosani
/	ELECTRICITY GENERATION IN ROMANIA	r redolu lonuț Cosmin	Onversity of Petrosam
5.B.2	ORADEA – BEST PRACTICE EXAMPLE FOR IMPLEMENTING ENERGY	Codruța Călina Bendea	
5.B.Z	EFFICIENCY PROJECTS USING EUROPEAN GRANTS	Gabriel Valentin Bendea	University of Oradea
		Alexandra Stanimirescu	
5.B.3	WATER POLLUTION IN JIU VALLEY AS A RESULT OF MINING ACTIVITIES	Florin Flavius Soica	University of Petrosani
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	AN ANALYTICAL APPROACH TO COGENERATION UNITS ECONOMIC SIZING,	Constantin Borosan	
5.B.4	THAT TAKES INTO ACCOUNT THE EVOLUTION OF VARIABLE PARAMETERS	Viorica Hlusov	Technical University of Moldova
	OVER LIFETIME	Calin Negura	
		Mihail Şit	
5.B.5	STUDY OF THE DISTRICT HEATING SYSTEMS WITH CHP AND HEAT PUMPS	Anatoly Juravleov	Institutul de Energetică, Chișinău, Republica
5.0.5		Dmitry Suvorov	Moldova
		Larisa Suvorova	
	MODERN ASPECTS OF CALCULATION AND ANALYSIS OF THE OPERATING	D: 01 : 11 :	
	REGIMES OF	Diga Silvia-Maria Diga Nicolae	
5.B.6	CENTRIFUGAL PUMPS DRIVEN BY INDUCTION MOTORS, WITHIN THE	Navrapescu Valentin	POLITEHNICA University of Bucharest
	ANCILLARY	Duinea Adelaida-Mihaela	
	SERVICES OF THERMOELECTRIC POWER PLANTS		
	MANAGEMENT OF IMPLEMENTING A PILOT PROJECT AT UPB-FACULTY OF	, i i i i i i i i i i i i i i i i i i i	
	POWER ENGINEERING: "HYBRID GEOTHERMAL-SOLAR SYSTEM DEVELOPED	Roxana PĂTRAȘCU	
5.B.7	TO SUPPLY THE ENERGY DEMANDS OF A BUILDING AND INTEGRATION WITH	Constantin IONESCU Mihai-Rares SANDU	UPB
	UPB DISTRICT HEATING NETWORK	Millal-Mareş SANDO	
	TECHNICAL, ECONOMIC AND SOCIAL RISKS ENCOUNTERED IN THE MINE	George Artur GAMAN	
	CLOSURE ACTIVITY IN THE JIU VALLEY" ("RISCURI TEHNICE, ECONOMICE SI	Nicolae ILIAS	
5.B.8	SOCIALE ÎNTÂLNITE ÎN ACTIVITATEA DE ÎNCHIDERE A MINELOR DIN VALEA	Cristian TOMESCU	INSEMEX
	JULUI	Emilian GHICOI	
	310201	Doru CIOCLEA Mihail Cernei	Moldova State University / Technical University of
5.B.9	DISTRICT HEATING IN REPUBLIC OF MOLDOVA	Vasile Leu	Moldova State University / Technical University of Moldova

CLOSING CEREMONY

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- on the 1st & 2nd of September, for paper authors from Day 3 and Day 4: 11.00-13.00 EEST
- on the 4th of September, for all session moderators: 11.00-12.00 and for Day 1 and Day 2 speakers: 12.00-13.00 EEST

*The conference and tests will be organized on Zoom platform. The access links will be sent to moderators, speakers and papers' authors by e-mail on every test or conference day morning, until 8.30 EEST

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