INTERNATIONAL MULTIDISCIPLINARY SYMPOSIUM
"UNIVERSITARIA SIMPRO 2026"

- 12th EDITION -

„QUALITY AND INNOVATION IN EDUCATION, RESEARCH AND INDUSTRY
- THE SUCCESS TRIANGLE FOR A SUSTAINABLE ECONOMIC, SOCIAL
AND ENVIRONMENTAL DEVELOPMENT"

SIMPOZIONUL ŞTIINŢIFIC INTERNAŢIONAL MULTIDISCIPLINAR
INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC SYMPOSIUM

"UNIVERSITARIA SIMPRO 2026"

SYMPOSIUM PROGRAM

SUB EGIDA / UNDER THE AUSPICES OF:

MINISTERUL EDUCAŢIEI ŞI CERCETĂRII
MINISTRY OF EDUCATION AND RESEARCH

ACADEMIA OAMENILOR DE ŞTIINŢĂ DIN ROMÂNIA
ACADEMY OF ROMANIAN SCIENTISTS

ACADEMIA DE ŞTIINŢE ŢEHNICE DIN ROMÂNIA
ACADEMY OF TECHNICAL SCIENCES OF ROMANIA

ASOCIAŢIA GENERALĂ A INGINERILOR DIN ROMÂNIA
GENERAL ASSOCIATION OF ENGINEERS IN ROMANIA

AUTORITATEA NAŢIONALĂ PENTRU CERCETARE ŞTIINŢIFICĂ
NATIONAL AUTHORITY FOR SCIENTIFIC RESEARCH

22nd – 24th OCTOBER, 2026
PETROŞANI

UNIVERSITARIA SIMPRO 2026

GENERAL PROGRAM

October 22nd, 2026

14:00 – 14:30[1] Welcome and registration – University of Petroșani, Building A – 2nd floor AULA lobby

14:30 – 15:00 Opening ceremony – University of Petroșani – Building A – 1st floor, A4 Amphitheater

Sorin-Mihai RADU, Rector, University of Petroșani
Maria LAZĂR, Research vicerector, University of Petroșani
Constantin Sorin BURIAN, General manager, NIRD INSEMEX Petroșani

15:00 – 16:20 Plenary lectures – University of Petroșani – Building A – 1st floor, A4 Amphitheater

- 15:00 – 15:20 **Iuliu WINKLER**, Member of the European Parliament, Romania – "*Europe's Industrial Pivot: New Policies for the Global Realignment*"
- 15:20 – 15:40 **Carsten DREBENSTEDT**, Bergakademie Technische Universität Freiberg, Germany – "*Alternative sources of mineral raw materials and alternative mining methods*"
- 15:40 – 16:00 **Sorin-Mihai RADU**, University of Petroșani, Romania – „*The advanced processing of mineral resources and the role of the University of Petroșani in this approach*"
- 16:00 – 16:20 **Moczko PRZEMYSŁAW**, Wroclaw University of Science and Technology, Poland – *"Adaptive geometry-based flow control systems in high-efficiency industrial fans for sustainable industrial development"*

[1] Bucharest Time

16:20 – 16:30 Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby
16:30 – 18:00 Parallel sessions
19:00 Dinner - “Student restaurant” - University of Petroșani

October 23rd, 2026

09:00 – 10:30 Parallel sessions
10:30 – 10:45 Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby
10:45 – 12:15 Parallel sessions
12:30 – 13:30 Lunch break – “Student restaurant” - University of Petroșani
13:45 – 15:15 Parallel sessions
15:15 – 15:30 Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby
15:30 – 17:00 Parallel sessions
19:00 Gala dinner - “La Belle Epoque” Restaurant, Petroșani

October 24th, 2026

09:00 Cultural visit

- Nopcsa Castle
- Hunyadi Castle

PARALLEL SESSIONS
THURSDAY October 22nd, 2026
16:30 – 18:00

TOPICS

1. ADVANCES IN SAFETY SCIENCE AND OCCUPATIONAL RISK MANAGEMENT

University of Petroșani – Building A – 1st floor, A1 Amphitheater

Chairpersons: Prof. Dr. Habil. Eng. Iosif Roland, MORARU
Prof. Dr. Habil. Eng. Lucian Ionel CIOCA

Secretary of session: Lect. Dr. Eng. Mihai POPESCU-STELEA

1	Marius Kovacs, Daniel Pupazan and Gaman Angelica Nicoleta - LONGITUDINAL STUDY ON THE DYNAMICS AND CORRELATION OF INHALABLE AND RESPIRABLE DUST IN THE CERAMIC INDUSTRY AND THE IMPLICATIONS ON OCCUPATIONAL EXPOSURE	16:30 – 16:45
2	Daniela Ruse - ADVANCES IN SAFETY SCIENCE AND OCCUPATIONAL RISK MANAGEMENT IN THE ELECTRIC POWER INDUSTRY	16:45 – 17:00
3	Antonov Anca Elena, Buica Georgeta, Constantin Beiu and Daria Ionescu - MACHINERY SAFETY CONFORMITY ASSESSMENT IN THE CONTEXT OF ARTIFICIAL INTELLIGENCE	17:00 – 17:15
4	Nicolae Ioan Vlasin, Emilian Ghicioi, Vlad Mihai Pasculescu, Marius Cornel Suvar and Florin Manea - PHYSICS-INFORMED AI AND CFD COUPLING FOR HYDROGEN AND METHANE EXPLOSION ANALYSIS	17:15 – 17:30
5	Mariana Luminita Anghelus Grecu and Roland Iosif Moraru - THE INFLUENCE OF EXPLOSION RISK ASSESSMENT, ROOT CAUSE DETERMINATION AND LESSONS LEARNED ON THE INCIDENCE OF INDUSTRIAL ACCIDENTS CAUSED BY MAINTENANCE ACTIVITIES	17:30 – 17:45

6	Dragos Gabriel Vasilescu, Dorel Ovidiu Bretean, Claudia Iuliana Miron, Denisa Tudor and Cristian Radeanu - SECURITY RISK ANALYSIS IN THE FIELD OF MINERAL RESOURCES, BASED ON AN ADAPTIVE MATHEMATICAL FORECASTING MODEL FOR DECISION SUPPORT	17:45 – 18:00
Q&A		
Dinner - "Student restaurant" - University of Petroșani		**19:00**

TOPICS

2. CHALLENGES IN GEOLOGY, MINING AND MINERAL PROCESSING
+
3. SURVEYING AND CIVIL ENGINEERING

University of Petroșani – Building A – 1st floor, A2 Amphitheater

Chairpersons: Phd.Eng. Robert LASZLO
Phd.Eng. Alexandru Florin MIHAI
Secretary of session: Lect. Dr. Eng. Klaus FISSGUS

1	Robert Laszlo, Emilian Ghicioi, Stefan Ilici, Aurelian Nicola and Miklos Levente - BLASTING DEMOLITION OF AN INDUSTRIAL STRUCTURE: TECHNICAL AND SAFETY CONSIDERATIONS	16:30 – 16:45
2	Alexandru Florin Mihai, Camelia Traista, Camelia Badulescu, Ljiljana Tankosic and Mariana Dumitrache - WHY SELECTIVE COLLECTORS FAIL ON HETEROGENEOUS COAL WASTE: LUPROMIN FPC VERSUS DIESEL OIL IN THE FLOTATION OF PORT OF CONSTANȚA MINERAL WASTE	16:45 – 17:00
3	Ion Gherghe, Nicolae Ianc, Marius Morar and Gabriel Ioan Ilcea - THE ROLE OF VENTILATION IN THE SAFETY AND EFFICIENCY OF MINING ACTIVITIES	17:00 – 17:15
4	Cristian Tomescu, Doru Cioclea, Emeric Chiuzan, Corneliu Boanta and Sorina Stanila - MANAGEMENT OF AN EMERGENCY SITUATION INVOLVING GAS EMISSIONS IN AN ENGINEERING STRUCTURE - CASE STUDY OF A RAILWAY TUNNEL -	17:15 – 17:30

5	Edward Gheorghiosu, Bianca Fisan and Octavain Baba - RESEARCH ON THE FUNCTIONING OF PYROTECHNIC ARTICLES SUCH AS FIRE EXTINGUISHERS, AFTER THERMAL CONDITIONING	17:30 – 17:45
6	Alexandru Cămărășescu, Răzvan Drăgoescu, Adrian Matei, Florin Radoi and Gabriel Bujor Băbuț - SAFETY ASSESSMENT AND MONITORING OF FLAMMABLE GAS EMISSIONS IN THE AREA OF WELLS NO. 1 AND NO. 2, BUZĂU COUNTY, ROMANIA (CASE STUDY)	17:45 – 18:00
Q&A		
Dinner - "Student restaurant" - University of Petroșani		**19:00**

TOPICS

4. SUSTAINABLE ENVIRONMENTAL ENGINEERING AND PROTECTION
+
6. RESPONSIBLE CONSUMPTION AND PRODUCTION

University of Petroșani – Building A – 1st floor, A4 Amphitheater

Chairpersons: Prof. Dr. Habil. Eng. Maria LAZĂR
Assoc. Prof. Dr. Eng. Eugen TRAISTĂ
Secretary of session: PhD student Rodica STEPANEK

1	Sorinel Popescu, Iulian Vladuca, Stela Dinescu and Ramona-Manuela Stanciuc - MECHANICAL BEHAVIOR OF SALT ROCKS SUBJECTED TO GAS PRESSURE IN UNDERGROUND STORAGE CAVERNS	16:30 – 16:45
2	Cristea Dragos - ADVANCED METHODOLOGIES FOR RESIDUAL FLUID SATURATIONS: AN INTEGRATED TECHNICAL FRAMEWORK FOR EVALUATING RESIDUAL OIL SATURATION (ROS) AND IRREDUCIBLE WATER SATURATION (SWIRR)	16:45 – 17:00
3	Sorin Simion, Lorand Toth and Marius Emilian Kovacs - NOISE POLLUTION AND QUALITY OF LIFE	17:00 – 17:15

4	Alexandra Soica, Nicoleta Negru and Sorin Mihai Radu - THIRTY YEARS OF TRANSITION IN THE JIU VALLEY: A STATISTICAL ASSESSMENT OF DEMOGRAPHIC, ECONOMIC AND ENVIRONMENTAL CHANGE	17:15 – 17:30
5	Camelia Traista, Traista Eugen, Niculina Sonia Șuvar and Szollosi-Moța Cristina Simona - MINING INDUSTRY AND CIRCULAR ECONOMY: REAL COMPATIBILITY OR CONCEPTUAL CONTRADICTION?	17:30 – 17:45
6	Rodica Cujba Stepanek, Maria Lazar, Carsten Drebenstedt, Mariana Ionela Fălcan Dumitrache and Abrorkhon Rozikulov - COPPER RECOVERY: CONVENTIONAL AND MODERN APPROACHES	17:45 – 18:00
Q&A		
Dinner - "Student restaurant" - University of Petroșani		**19:00**

TOPICS

5. INNOVATIONAL CHALLENGES IN ELECTRICAL ENGINEERING AND ENERGETIC TECHNOLOGY
+
7. DEVELOPMENTS IN SYSTEMS CONTROL, INFORMATION TECHNOLOGY AND CYBER SECURITY
+
8. INDUSTRIAL, MECHANICAL AND TRANSPORTATION ENGINEERING

University of Petroșani – Building A – 1st floor, A3 Amphitheater

Chairpersons: Assoc. Prof. Dr. Eng. Nicolae PĂTRĂȘCOIU
Assoc. Prof. Moczko PRZEMYSŁAW
Secretary of session: Assoc. Prof. Dr. Eng Florin G. POPESCU

1	Nicolae Patrascoiu - USING VIRTUAL INSTRUMENTATION IN THE REMOTELY CONTROLLED DIGITAL EXPERIMENTS	16:30 – 16:45
2	Gheorghe Daniel Florea, Nicolae-Ioan Vlasin, Dan Codrut Petrilean, Ligia Ioana Tuhut and Andrada Denisa Matei - INFLUENCE OF HYDROGEN CONCENTRATION DISTRIBUTION ON PRESSURE EVOLUTION IN CONFINED SPACES	16:45 – 17:00

3	Lucian Moldovan, Mihai Magyari, Dragos Fotau and Clementina Sabina Moldovan - CONSIDERATIONS ON THE MAXIMUM SURFACE TEMPERATURE OF ELECTRICAL EQUIPMENT WITH TYPE OF PROTECTION FLAMEPROOF ENCLOSURE AND INCREASED SAFETY DESIGNED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES	17:00 – 17:15
4	Danut Grecea, Sorin Burian, Cosmin Colda, Gabriela Pupazan and Alexandru Beldiman - USE OF ARTIFICIAL INTELLIGENCE IN THE MAINTENANCE OF EQUIPMENT USED IN EX ENVIRONMENTS	17:15 – 17:30
5	Mirela Ancuta Radu, Anca Alexandra Podaru and Dan Sorin Gabor - SAFETY AND COMPATIBILITY REQUIREMENTS FOR PROTECTIVE SYSTEMS APPLIED FOR TECHNOLOGICAL INSTALLATIONS WITH HYBRID MIXTURE	17:30 – 17:45
6	Sorin Rasnoveanu, Catalin Mihai Popa, Anamaria Daroczi and Sorin Radu - CONTRIBUTIONS ON THE PREVENTION OF IGNITION RISKS CAUSED BY STATIC ELECTRICITY IN EXPLOSIVE ATMOSPHERES.	17:45 – 18:00
Q&A		
Dinner - "Student restaurant" - University of Petroșani		**19:00**

TOPICS

9. RECENT TRENDS IN BUSINESS, ECONOMICS, LAW AND PUBLIC ADMINISTRATION
+
10. CONTEMPORARY APPROACHES IN QUALITY ASSURANCE, MANAGEMENT AND MARKETING
+
11. SUSTAINABLE DEVELOPMENT IN HUMANITIES, SOCIAL SCIENCES, EDUCATION RESEARCH AND INTERDISCIPLINARY STUDIES

University of Petroșani – Building A – 1st floor, Faculty of Science Conference Room

Chairpersons: Prof. Dr. Habil. Ec. Codruța DURA
Prof. Dr. Eng. Carsten DREBENSTEDT
Secretary of session: Lect. Dr. Raluca-Anamaria NICOLAESCU

1	Carsten Drebenstedt - HYDROGEN TECHNOLOGIES IN EDUCATION AND TRAINING	16:30 – 16:45
2	Ladislau Radermacher, Florin Faur and Alexandrina Moisuc - THE ECOLOGICAL IMPACT AND PSYCHOSOCIAL STRESSORS OF THE WAR IN UKRAINE IN THE FIRST HALF OF 2026	16:45 – 17:00
3	Iulian Negru - THE SOCIAL CONSTRUCTION OF AUTOMOBILITY: FROM THE ILLUSION OF INDIVIDUAL FREEDOM TO DIGITAL CAPTIVITY – *online presentation*	17:00 – 17:15
4	Raluca Iordache, Delia Mihăilă, Viorica Petreanu and Antonov Anca Elena - PSYCHOSOCIAL RISK FACTORS AND PROFESSIONAL SOLICITATIONS IN ELECTRICAL NETWORK DISPATCHERS: AN ERGONOMIC ASSESSMENT	17:15 – 17:30
5	Codruta Cornelia Dura, Claudia Isac, Imola Drigă, Ana Preda and Popescu Mirela - FROM LOCAL TO GLOBAL: A BIBLIOMETRIC REVIEW AND RESEARCH AGENDA FOR SMES INTERNATIONALIZATION	17:30 – 17:45
6	Delia Mihaila, Raluca Iordache and Viorica Petreanu - RISK MANAGEMENT FOR THE HEALTH AND WELL-BEING OF THE ELECTRICAL NETWORK DISPATCHER	17:45 – 18:00

7	Cătălin-Ilie Mitran - ON NONLINEAR LEAST SQUARES APPROXIMATION MODELS WITH APPLICATIONS	18:00 – 18:15
8	Cosmin Rus - BUILDING FUTURES AT HOME: A SUSTAINABLE HIGHER EDUCATION STRATEGY FOR POST-MINING REGIONS	18:15 – 18:30
9	Madalina-Gabriela Anghel and Denis-Arthur Strijek - ASSESSING THE DEVELOPMENT POTENTIAL OF AGRIVOLTAIC SYSTEMS IN THE REGIONS OF ROMANIA: THE ROLE OF AGRICULTURAL EMPLOYMENT AND LAND AVAILABILITY	18:30 – 18:45
Q&A		
Dinner - "Student restaurant" - University of Petroșani		**19:00**

PARALLEL SESSIONS
FRIDAY October 23rd, 2026
09:00 – 10:30 and 10:45 – 12:15

TOPICS

1. ADVANCES IN SAFETY SCIENCE AND OCCUPATIONAL RISK MANAGEMENT

University of Petroșani – Building A – 1st floor, A1 Amphitheater

Chairpersons: Lect. PhD Eng. Mihai-Adrian BERNEVIG
Phd.Eng. Maria PRODAN
Secretary of session: Lect. Dr. Eng. Mihai POPESCU-STELEA

1	Cosmin Ilie, Daniel Pupazan, Cristian Nicolescu, Izabella Kovacs and Lorand Toth - THE PROCESS OF TECHNICAL CHECKS OF COMPRESSED AIR CYLINDER CONTAINERS MADE OF COMPOSITE MATERIAL	09:00 – 09:15
2	Alexandru Marian Beldiman, Sorin Burian, Cosmin Colda, Danut Grecea and Nicolae Gabriel Beldiman - RESEARCH REGARDING THE INTEGRATION OF ARTIFICIAL INTELLIGENCE AND DIGITAL TECHNOLOGIES IN THE MONITORING OF INTRINSICALLY SAFE EQUIPMENT USED IN POTENTIALLY EXPLOSIVE ATMOSPHERES	09:15 – 09:30
3	Buica Georgeta, Antonov Anca Elena, Constantin Beiu, Remus Dobra, Risteiu Mircea and Daria Ionescu - OCCUPATIONAL RISK MANAGEMENT FOR MAINTENANCE ACTIVITIES IN THE PHARMACEUTICAL INDUSTRY	09:30 – 09:45
4	Mihai-Adrian Bernevig, Maria Dima and Lucian Ionel Cioca - AN ARTIFICIAL INTELLIGENCE-BASED PREDICTIVE SYSTEM FOR ASSESSING ORGANIZATIONAL SAFETY CULTURE THROUGH DIGITAL BEHAVIOR TELEMETRY IN EHS TRAINING PLATFORMS	09:45 – 10:00

5	Cristian Raul Cioara, Marius Simion Morar and Andrada Denisa Matei - TECHNICAL AND ORGANIZATIONAL ACTIONS REGARDING THE LEGAL CLASSIFICATION OF PYROTECHNIC ARTICLES INTO CATEGORIES	10:00 – 10:15
6	Maria Prodan, Irina Nălboc, Andrei Szollosi-Mota and Asimina Toplician - MEASURES FOR PREVENTING AND LIMITING THE EFFECTS OF EXPLOSIONS GENERATED BY GASOLINE – HYDROGEN – AIR MIXTURES	10:15 – 10:30
Q&A		
Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby		**10:30 – 10:45**

TOPICS

1. ADVANCES IN SAFETY SCIENCE AND OCCUPATIONAL RISK MANAGEMENT

University of Petroșani – Building A – 1st floor, A1 Amphitheater

Chairpersons: Phd. Eng. Cristian RĂDEANU
Assoc. Prof. Dr. Eng. Ladislau RADERMACHER
Secretary of session: Lect. Dr. Eng. Mihai POPESCU-STELEA

1	Cristian Rădeanu, Ladislau Radermacher, Claudia Iuliana Miron, Alexandru Florin Șanta and Ciprian Jitea - EXPLOSION RISK ASSESSMENT BASED ON MATHEMATICAL MODELING OF THE TIME TO REACH THE LOWER EXPLOSIVE LIMIT FOLLOWING GAS LEAKS IN INDOOR GAS INSTALLATIONS	10:45 – 11:00
2	Andrei Gireada, Cristian Nicolescu, Alin Irimia and Cristian Livadariu - TECHNICAL PERFORMANCE EVALUATION OF RESPIRATORY PROTECTIVE EQUIPMENT USED IN HAZARDOUS ATMOSPHERES	11:00 – 11:15
3	Roxana-Ionela Sirbu, Andreea-Elena Mitcec, Dumitru Țucu and Rolf Athalvin Lupu - SYSTEM FOR IMPROVING OCCUPATIONAL HEALTH AND SAFETY MOTIVATION IN MINING ACTIVITIES	11:15 – 11:30

4	Dan Gabor, Catalin Mihai Popa and Sorin Râșnoveanu - ELECTROSTATIC IGNITION RISK IN HYDROGEN-ENRICHED DUST ATMOSPHERES	11:30 – 11:45
5	Adrian Marius Jurca, Florin Adrian Păun and Anamaria Daroczi - THEORETICAL ASPECTS REGARDING THE CONFORMITY ASSESSMENT OF TECHNICAL EQUIPMENT ASSEMBLIES WITHIN HYDROGEN INSTALLATIONS	11:45 – 12:00
6	Andreea-Elena Mitcec, Roxana-Ionela Sîrbu, Dumitru Țucu and Rolf Athalvin Lupu - PSYCHOSOCIAL RISK FACTORS AMONG OHS WORKERS IN THE MINING SECTOR	12:00 – 12:15
Q&A		
Lunch break – "Student restaurant" - University of Petroșani		**12:30 – 13:30**

TOPICS

2. CHALLENGES IN GEOLOGY, MINING AND MINERAL PROCESSING
+
3. SURVEYING AND CIVIL ENGINEERING

University of Petroșani – Building A – 1st floor, A2 Amphitheater

Chairpersons:Phd. Eng. Doru CIOCLEA
Lect. Dr. Eng. Klaus FISSGUS

1	Stefan Ilici, Robert Laszlo, Ilie Ciprian Jitea and Roland Moraru - CONTRIBUTIONS ON THE DEVELOPMENT AND IMPLEMENTATION OF SAFE TECHNOLOGIES APPLICABLE TO THE DEMOLITION OF CIVIL AND INDUSTRIAL OBJECTIVES	09:00 – 09:15
2	Florin Radoi, Corneliu Boantă, Emeric Chiuzan, Adrian Matei and Gabriel Bujor Băbuț - POSSIBILITIES FOR IMPLEMENTING AMM UTILIZATION TECHNIQUES IN THE VALEA JIULUI MINING BASIN	09:15 – 09:30

3	Alexandru-Marian Eremei, Maria Lazăr, Rodica Stepanek Cujba and Mariana Ionela Fălcan Dumitrache - MODERN MONITORING METHODS FOR SURFACE MINING OPERATIONS: A COMPARATIVE ANALYSIS OF OPERATIONAL PERFORMANCE AND RESPONSE TIME	09:30 – 09:45
4	Niculina Sonia Suvar, Camelia Traista, Irina Nălboc, Andrei Szollosi-Mota and Asimina Toplician - ANALYTICAL CHALLENGES IN THE PREPARATION AND CHEMICAL CHARACTERIZATION OF EVAPORITES CONTAINING HYDRATED SULFATES	09:45 – 10:00
5	Doru Cioclea, Cristian Tomescu, Ion Gherghe, Răzvan Drăgoescu and Alexandru Cămărășescu - QUANTITATIVE ASSESSMENT OF METHANE GAS CONFINED IN CLOSED AREAS OF UNDERGROUND MINING	10:00 – 10:15
6	Vasiliu Iulia - COMPARATIVE SEDIMENTOLOGY AND SYSTEM ANALOGUES OF THE WEST IBERIAN AND EAST EUROPEAN BASINS	10:15 – 10:30
7	Dumitru Georgiana - ENHANCING RESERVOIR PROPERTIES PREDICTION VIA COMBINED SEISMIC INVERSION AND GEOSTATISTICAL MODELING	10:30 – 10:45
Q&A		
Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby		**10:45 – 11:00**
Lunch break – "Student restaurant" - University of Petroșani		**12:30 – 13:30**

TOPICS

4. SUSTAINABLE ENVIRONMENTAL ENGINEERING AND PROTECTION
+
6. RESPONSIBLE CONSUMPTION AND PRODUCTION

University of Petroșani – Building A – 1st floor, A4 Amphitheater

Chairpersons: Lect. Dr. Eng. Dragoș CRISTEA
Phd. Eng. Alexandru Florin SIMION
Secretary of session: PhD student Rodica STEPANEK

1	Mădălina-Flavia Ioniță, Sorin Mihai Radu and Emilia Cornelia Dunca - A CONCEPTUAL CIRCULAR ECONOMY FRAMEWORK FOR SUSTAINABLE MANAGEMENT OF ELECTRICAL AND ELECTRONIC WASTE IN UNIVERSITY CAMPUSES	09:00 – 09:15
2	Francis Pavloudakis, Aggelos Tsachouridis, Christos Diamantopoulos and Ilias Desiniotis - URBAN MINING OF END-OF-LIFE PHOTOVOLTAIC PANELS: INTEGRATING LIFE CYCLE THINKING AND RAW MATERIAL SECURITY OF SUPPLY	09:15 – 09:30
3	Alexandru Florin Simion, Gaman Angelica Nicoleta and Simion Sorin Victor - HYDRODYNAMIC INFLUENCE ON THE SPATIAL DISTRIBUTION OF VOLATILE ORGANIC COMPOUNDS IN THE JIUL DE EST RIVER SYSTEM	09:30 – 09:45
4	Antonios Stratakis, Anthoula Vasileiou, Michail Galetakis, Magdalena Cempa and Barbara Białecka - METHODOLOGICAL FRAMEWORK FOR EVALUATING MINING AND PROCESSING WASTES AS GEOPOLYMER PRECURSORS FOR REINFORCED MINE WASTE DUMP STABILIZATION – *online presentation*	09:45 – 10:00
5	Alexandra Gkoutzou, Michail Galetakis, Anthoula Vasileiou, Aikaterini Servou, Alexandros Akylas and Christos Roumpos - DEVELOPMENT OF AN AUDIT TOOL FOR THE ECOLOGICAL REHABILITATION OF OPEN PIT MINES – *online presentation*	10:00 – 10:15

6	Mariana Ionela Fălcan Dumitrache, Maria Lazăr and Alexandru-Marian Eremei - ENVIRONMENTAL IMPACT ASSESSMENT OF A HISTORICAL SILICO-MANGANESE SLUDGE DEPOSIT BASED ON PHYSICOCHEMICAL CHARACTERIZATION AND GLOBAL POLLUTION INDEX ANALYSIS	10:15 – 10:30
Q&A		
Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby		**10:30 – 10:45**

TOPICS

4. SUSTAINABLE ENVIRONMENTAL ENGINEERING AND PROTECTION
+
6. RESPONSIBLE CONSUMPTION AND PRODUCTION

University of Petroșani – Building A – 1st floor, A4 Amphitheater

Chairpersons: Assoc. Prof. Francis PAVLOUDAKIS
Phd. Eng. Angelica Nicoleta GĂMAN
Secretary of session: PhD student Rodica STEPANEK

1	Sabin Ioan Irimie, Maria Lazar, Anna Ostręga and Michael Galetakis - MULTI-CRITERIA TOOL FOR ASSESSING THE SOCIAL ACCEPTANCE OF RM-GES GRAVITY ENERGY STORAGE PROJECTS IN POST-MINING SITES	10:45 – 11:00
2	Clementina Sabina Moldovan, Sebastian Sbirna and Liana Simona Sbirna - CBAM COUNTRY-LEVEL SENSITIVITY ANALYSIS OF UNWROUGHT ALUMINIUM (2026–2030): A COMPARATIVE STUDY OF EMBEDDED CARBON INTENSITIES	11:00 – 11:15
3	Nicoleta Negru, Alexandra Soica, Sorin Mihai Radu and Emilia Dunca - FROM MINING WASTE TO RENEWABLE ENERGY: SUSTAINABLE ENVIRONMENTAL ENGINEERING APPROACHES FOR POST-INDUSTRIAL LAND REUSE	11:15 – 11:30
4	Andrei Curoș, Daniela Delinschi, Flaviu Mureșan, Ilie Onica and Ioan Bud - BĂIUȚ MINING PERIMETER: HISTORICAL EXPLOITATION, PROCESSING LOSSES, ENVIRONMENTAL IMPACT AND THE CONFLICT BETWEEN	11:30 – 11:45

	MINERAL RESOURCE RECOVERY AND PROTECTED AREAS	
5	Cristea Dragos - ADVANCED GEOPHYSICAL METHODS FOR CARBON CAPTURE AND GEOLOGICAL STORAGE IN DEPLETED GAS RESERVOIRS	11:45 – 12:00
6	Chis Timur - MATHEMATICAL MODELING OF OFFSHORE WIND FARM	12:00 – 12:15
7	Maria Lazar, Przemyslaw Moczko, Ion Dosa, Iosif Andras, Adrian Florea, Klaus Fissgus and Rodica Stepanek Cujba - NUMERICAL ASSESSMENT OF GEOTECHNICAL ISSUES IN POST-MINING SITES FOR PHES CONVERSION	12:15 – 12:30
8	Chis Timur-Vasile - THE INFLUENCE OF INTERACTION PHENOMENA ON THE EFFICIENCY OF CRUDE OIL DISPLACEMENT WHEN APPLYING A CHEMICAL RECOVERY METHOD	12:30 – 12:45
9	Chis Timur - MATHEMATICAL MODELING OF DIRECTIONAL DRILING	12:45 – 13:00
Q&A		
Lunch break – "Student restaurant" - University of Petroșani		**13:00 – 14:00**
Gala dinner - "La Belle Epoque" Restaurant, Petroșani		**19:00**

TOPICS

5. INNOVATIONAL CHALLENGES IN ELECTRICAL ENGINEERING AND ENERGETIC TECHNOLOGY

+

7. DEVELOPMENTS IN SYSTEMS CONTROL, INFORMATION TECHNOLOGY AND CYBER SECURITY

+

8. INDUSTRIAL, MECHANICAL AND TRANSPORTATION ENGINEERING

University of Petroșani – Building A – 1st floor, A3 Amphitheater

Chairpersons: Prof. Dr. Habil. Eng.Dan Codruț PETRILEAN
Phd. Eng. Lucian MOLDOVAN
Secretary of session: Assoc. Prof. Dr. Eng Florin G. POPESCU

1	Florin Adrian Păun, Adrian Marius Jurca, Mirela Ancuța Radu and Ana Petrina Păun - APPLICATION OF STANDARDIZED TEST METHODS FOR DETERMINING THE SAFETY PERFORMANCE OF	09:00 – 09:15

	CLOTHING AND FOOTWEAR USED BY WORKERS IN THE PRESENCE OF EXPLOSIVE ATMOSPHERES GENERATED BY HYDROGEN	
2	Alexandru Bogye, Dan Codruț Petrilean and Răzvan Bogdan Itu - THERMODYNAMIC MODELING AND HEAT RECOVERY OF A SINGLE-MASS GRAVITY ENERGY STORAGE DEMONSTRATOR FOR HISTORIC HEADFRAME PRESERVATION	09:15 – 09:30
3	Cosmin Rus, Marius Risteiu and Monica Leba - CYBERSECURITY CHALLENGES OF ELECTRIC PUBLIC TRANSPORT SYSTEMS: A GREENLINE JIU VALLEY CASE STUDY	09:30 – 09:45
4	Vass Zoltan, Adrian Bogdan Șimon-Marinica, Laurentiu Munteanu and Cioara Cristian - DEVELOPMENT OF A COMPUTER PROGRAM FOR THE MANAGEMENT OF DOCUMENTS IN THE FIELD OF TECHNICAL AND SCIENTIFIC EXPERTISE.	09:45 – 10:00
5	Valentin Sirbu, Lucian Moldovan, Sorin Zsido and Diana Salasan - CONSIDERATIONS REGARDING THE DESIGN SOLUTIONS ADOPTED FOR LIGHTING FIXTURES INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES	10:00 – 10:15
6	Mihai Culea, Adriana Burlibaşa, Silviu Epure, Alexandru Florin Mihai, Ciprian Vlad and George-Andrei Marin - FULLY AUTOMATED TIME ALIGNMENT IN OFFLINE MULTI-NODE MONITORING SYSTEMS USING PTP HARDWARE TIMESTAMPING AND LAYERED OS-LEVEL CLOCK DISCIPLINE	10:15 – 10:30
Q&A		
Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby		**10:30 – 10:45**

TOPICS

5. INNOVATIONAL CHALLENGES IN ELECTRICAL ENGINEERING AND ENERGETIC TECHNOLOGY
+
7. DEVELOPMENTS IN SYSTEMS CONTROL, INFORMATION TECHNOLOGY AND CYBER SECURITY
+
8. INDUSTRIAL, MECHANICAL AND TRANSPORTATION ENGINEERING

University of Petroșani – Building A – 1st floor, A3 Amphitheater

Chairpersons: Phd. Eng. Vlad PĂSCULESCU
Assoc. Prof. Dr. Eng. Daniela STOCHIȚOIU
Secretary of session: Assoc. Prof. Dr. Eng Florin G. POPESCU

1	Marius Cornel Suvar, Vlad Mihai Pasculescu, Laurentiu Munteanu, Marius Morar and Adina Cristina Pasculescu - ROBUST RISK ASSESSMENT FOR 700 BAR HYDROGEN REFUELING STATIONS: A PARAMETRIC CONSEQUENCE ANALYSIS INTEGRATING BOWTIE DIAGRAMS AND PHENOMENOLOGICAL MODELING	10:45 – 11:00
2	Andreea-Isabela Danalache, Anca Cazac, Mihai-Adrian Bernevig, Vasile Ermolai and Mihai Popa - INFLUENCE OF RASTER AND EXTRUSION PARAMETERS ON THE SURFACE ROUGHNESS OF ASA 3D PRINTED SAMPLES	11:00 – 11:15
3	Adrian Bogdan Șimon-Marinică, Gheorghe Daniel Florea, Ligia Ioana Tuhut and Florin Manea - DEVELOPMENT AND USE OF A LABORATORY SYSTEM FOR DETECTING ULTRAVIOLET RADIATION GENERATED BY SPARKS	11:15 – 11:30
4	Maria Loredana Oroian-Boca and Garip Genc - DYNAMIC MODELLING AND FEEDBACK CONTROL FOR MISSION-CRITICAL SITUATIONS IN CRYOGENIC 13C ISOTOPE SEPARATION COLUMNS	11:30 – 11:45
5	Dragos Fotau, Mihai Magyari, Marcel Daniel Rad and Valentin Sirbu - EVALUATION OF ELECTRICAL EQUIPMENT USED IN FUEL DISTRIBUTION STATIONS FROM THE	11:45 – 12:00

	PERSPECTIVE OF OPERATIONAL SAFETY IN POTENTIALLY EXPLOSIVE ATMOSPHERES	
6	Maria Daniela Stochitoiu - THE ROLE OF FLEXIBILITY IN FACING THE CONSTANT STRAIN OF ENERGY SYSTEM	12:00 – 12:15
Q&A		
Lunch break – "Student restaurant" - University of Petroșani		**12:30 – 13:30**
Gala dinner - "La Belle Epoque" Restaurant, Petroșani		**19:00**

PARALLEL SESSIONS
FRIDAY October 23rd, 2026
13:30 – 15:00

TOPICS		
1. ADVANCES IN SAFETY SCIENCE AND OCCUPATIONAL RISK MANAGEMENT		
University of Petroșani – Building A – 1st floor, A1 Amphitheater		
Chairpersons: Phd. Eng. Constantin BEIU Prof. Dr. Eng. Costică BEJINARIU Secretary of session: Lect. Dr. Eng. Mihai POPESCU-STELEA		
1	Marius Darie, Tiberiu Csaszar and Adriana Andris - INTRINSIC SAFETY ASSESMENT – A LONGITUDINAL ANALISYS OF AI CAPABILITIES	13:30 – 13:45
2	Cristian Livadariu, Cosmin Ilie, Andrei Gireada, Alin Irimia and Izabella Kovacs - CHALLENGES IN TRAINING RESCUE PERSONNEL FOR INTERVENTION IN TOXIC, FLAMMABLE AND EXPLOSIVE ENVIRONMENTS: A THEORETICAL PERSPECTIVE	13:45 – 14:00
3	Constantin Beiu, Georgeta Buică and Antonov Anca Elena - NEW TRENDS IN ELECTRICAL RISK ASSESSMENT IN THE IOT AND AI ERA	14:00 – 14:15
4	Bogdan Garaliu-Bușoi and Ilie-Ciprian Jitea - EXPERIMENTAL EVALUATION OF HAZARDOUS BEHAVIOR IN F2 CATEGORY PYROTECHNIC ARTICLES DURING COMPLIANCE TESTING	14:15 – 14:30

5	Maria Prodan, Irina Nălboc and Andrei Szollosi-Mota - METHANE – HYDROGEN –AIR MIXTURES EXPLOSIONS: MEASURES FOR THE PREVENTION AND MITIGATION	14:30 – 14:45
6	Elena Matcovschi, Costica Bejinariu, Diana-Petronela Burduhos-Nergis, Bogdan Pricop and Nicoleta-Monica Lohan - ARTIFICIAL INTELLIGENCE, IMMERSIVE TECHNOLOGIES AND SMART SENSING FOR OCCUPATIONAL SAFETY AND HEALTH IN THE INDUSTRY 4.0/5.0 ERA	14:45 – 15:00
Q&A		
Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby		**15:00 – 15:15**
Gala dinner - "La Belle Epoque" Restaurant, Petroșani		**19:00**

TOPICS

5. INNOVATIONAL CHALLENGES IN ELECTRICAL ENGINEERING AND ENERGETIC TECHNOLOGY
+
7. DEVELOPMENTS IN SYSTEMS CONTROL, INFORMATION TECHNOLOGY AND CYBER SECURITY
+
8. INDUSTRIAL, MECHANICAL AND TRANSPORTATION ENGINEERING

University of Petroșani – Building A – 1st floor, A3 Amphitheater

Chairpersons: Phd. Eng. Vlad PĂSCULESCU
Assoc. Prof. Dr. Eng. Daniela STOCHIȚOIU
Secretary of session: Assoc. Prof. Dr. Eng Florin G. POPESCU

1	Gabriela Pupazan, Tiberiu Csaszar, Marius Darie and Adriana Andris - TECHNICAL PARTICULARITIES REGARDING THE MAINTENANCE OF EQUIPMENT WITH THE TYPE OF PROTECTION „P"	13:30 – 13:45

2	Diana Salasan, Marcel Daniel Rad and Sorin Zsido - CLASSIFICATION AND APPLICATION OF ATEX EQUIPMENT IN POWER TRANSMISSION SYSTEMS	13:45 – 14:00
3	Adina Cristina Pasculescu, Vlad Mihai Pasculescu, Dragos Pasculescu and Gabriel Dragos Vasilescu - HAZARD MODELLING OF PRESSURIZED HYDROGEN RELEASE FOR THE SAFE DEPLOYMENT OF NEW ENERGETIC TECHNOLOGIES	14:00 – 14:15
4	Remus Dobra, Mircea Risteiu, Mihaela Aldea and Georgeta Buica - CORRELATING EXPERIMENTAL RESULTS WITH MATLAB SIMULATIONS FOR WAVEGUIDE MODES AND PHASE VELOCITY	14:15 – 14:30
5	Mircea Risteiu, Buica Georgeta, Remus Dobra, Florin Samoila and Aldea Mihaela - A SOFT-PLC EDGE COMPUTING PARADIGM FOR WEB-BASED RELAY AUTOMATION USING ESP8266 CONTROLLERS	14:30 – 14:45
6	Vasile-Daniel Bunduc, Diana-Petronela Burduhos-Nergis, Alin-Marian Cazac, Dan-Codruţ Petrilean and Costica Bejinariu - PHOSPHATE COATINGS ON METALLIC MATERIALS: CURRENT RESEARCH TRENDS IN PROCESSING, CHARACTERIZATION, AND ENGINEERING APPLICATIONS	14:45 – 15:00
Q&A		
Coffee break – University of Petroșani – Building A – 2nd floor AULA lobby		**15:00 – 15:15**
Gala dinner - "La Belle Epoque" Restaurant, Petroșani		**19:00**

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