



**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 ȘTIINȚIFIC INTERNAȚIONAL MULTIDISCIPLINAR
INTERNATIONAL MULTIDISCIPLINARY SCIENTIFIC SYMPOSIUM**

”UNIVERSITARIA SIMPRO 2026”

SYMPOSIUM PROGRAM

SUB EGIDA / UNDER THE AUSPICES OF:

**MINISTERUL EDUCAȚIEI ȘI CERCETĂRII
MINISTRY OF EDUCATION AND RESEARCH**

**ACADEMIA OAMENILOR DE ȘTIINȚĂ DIN ROMÂNIA
ACADEMY OF ROMANIAN SCIENTISTS**

**ACADEMIA DE ȘTIINȚE TEHNICE DIN ROMÂNIA
ACADEMY OF TECHNICAL SCIENCES OF ROMANIA**

**ASOCIAȚIA GENERALĂ A INGINERILOR DIN ROMÂNIA
GENERAL ASSOCIATION OF ENGINEERS IN ROMANIA**

**AUTORITATEA NAȚIONALĂ PENTRU CERCETARE ȘTIINȚIFICĂ
NATIONAL AUTHORITY FOR SCIENTIFIC RESEARCH**

22nd – 24th OCTOBER, 2026
PETROȘANI
UNIVERSITARIA SIMPRO 2026
GENERAL PROGRAM

October 22nd, 2026

- 14:00 – 14:30¹ 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 **Moczek PRZEMYSŁAW**, Wrocław 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 – 1 st 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 Chiuzean, 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

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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 TRAIȘĂ

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

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

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8. INDUSTRIAL, MECHANICAL AND TRANSPORTATION ENGINEERING

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

**Chairpersons: Assoc. Prof. Dr. Eng. Nicolae PĂTRAȘCOIU
Assoc. Prof. Moczko PRZEMYSŁAW**

Secretary of session: Assoc. Prof. Dr. Eng Florin G. POPESCU

1	Nicolae Patrascioiu - 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

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10. CONTEMPORARY APPROACHES IN QUALITY ASSURANCE, MANAGEMENT AND MARKETING

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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 – <i>online presentation</i>	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 Râşnoveanu - 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 Ţucu 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 Petroşani		12:30 – 13:30

TOPICS

2. CHALLENGES IN GEOLOGY, MINING AND MINERAL PROCESSING

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3. SURVEYING AND CIVIL ENGINEERING

University of Petroşani – 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 Chiuzean, Adrian Matei and Gabriel Bujor Băbuţ - 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 Gherghie, 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

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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 – <i>online presentation</i>	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 – <i>online presentation</i>	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 PHYSICO-CHEMICAL 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

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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	Chis Timur - MATHEMATICAL MODELING OF DIRECTIONAL DRILING	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 MINERAL RESOURCE RECOVERY AND PROTECTED AREAS	11:30 – 11:45

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
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

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

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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 CLOTHING AND FOOTWEAR USED BY WORKERS IN THE PRESENCE OF EXPLOSIVE ATMOSPHERES GENERATED BY HYDROGEN	09:00 – 09:15
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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 Burlibașa, 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

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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 PERSPECTIVE OF OPERATIONAL SAFETY IN POTENTIALLY EXPLOSIVE ATMOSPHERES	11:45 – 12:00

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-Codruț 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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ALUMNI Association of the University of Petrosani**

**Sindicatul CDPM din Universitatea din Petroșani
University of Petrosani CDPM Union**

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