



**INTERNATIONAL MULTIDISCIPLINARY SYMPOSIUM  
"UNIVERSITARIA SIMPRO 2024"**

- 11th EDITION -

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

University of Petroșani

October 24 - 25, 2024

**SIMPOZIONUL INTERNAȚIONAL MULTIDISCIPLINAR  
INTERNATIONAL MULTIDISCIPLINARY SYMPOSIUM**

## **”UNIVERSITARIA SIMPRO 2024”**

### **SYMPOSIUM PROGRAM**

**SUB EGIDA / UNDER THE AUSPICES OF:**

**MINISTERUL EDUCAȚIEI  
MINISTRY OF EDUCATION**

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

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

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

**24 – 25 OCTOBER, 2024  
PETROȘANI**

# UNIVERSITARIA SIMPRO 2024

## GENERAL PROGRAM

24 October 2024

- 08:00 – 09:00<sup>1</sup> Welcome and registration – University of Petroșani, Building A – 2<sup>nd</sup> floor AULA lobby
- 09:00 – 09:20 Opening ceremony – University of Petroșani – Building A – 1<sup>st</sup> floor, A4 Amphitheater
- Access link**  
<https://us04web.zoom.us/j/71697817019?pwd=D4UgmoGvbuG4luCLOGyYyOWabbaZqS.1>
- Topic: **SIMPRO 2024** Time: Oct 24, 2024 09:00 Bucharest
- Meeting ID: **716 9781 7019**
- Maria LAZĂR**, Research vicerector, University of Petroșani
- Sorin-Mihai RADU**, Rector, University of Petroșani
- George Artur GĂMAN**, General director, NIRD INSEMEX Petroșani
- 09:20 – 10:40 Plenary lectures – University of Petroșani – Building A – 1<sup>st</sup> floor, A4 Amphitheater
- 09:20 – 09:40 **Carsten DREBENSTEDT**, Bergakademie Technische Universität Freiberg – Germany – *Non-conventional sources and methods of mineral extraction – challenges and opportunities*
- 09:40 – 10:00 **Michael GALETAKIS**, Technical University of Crete – *The impact of conveyed material on the efficiency and capacity of a conveyor belt – gravitational energy storage system - online presentation*
- 10:00 – 10:20- **Roland MORARU**, University of Petroșani – Romania – *Aproaching human error in industrial settings: memento for Romanian Occupational Health and Safety professionals*
- 10:20 – 10:40 **Tatiana ANTIPOVA**, Institute of Cited Scientists, Agia Napa – Cyprus - *Green management vs black swan events – online presentation*
- 10:40 – 10:50 Signing the collaboration partner protocol with **Kryvyi Rih National University – Ukraine**
- 10:50 – 11:00 Coffee break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby
- 11:00 – 13:30 Parallel sessions
- 13:30 – 14:30 Lunch break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby
- 14:30 – 16:45 Parallel sessions
- 16:45 – 17:15 Coffee break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby
- 17:15 – 19:15 Parallel sessions
- 20:00 Gala dinner – “La Belle Epoque” Restaurant, Petroșani

25 October 2024

## ROUNDTABLES - EUROPEAN UNIVERSITY ALLIANCES

- 10:00 – 11:30 University of Petroșani – Building A – 1<sup>st</sup> floor, A4 Amphitheater
- Access link**  
<https://us04web.zoom.us/j/71697817019?pwd=D4UgmoGvbuG4luCLOGyYyOWabbaZqS.1>
- Topic: **SIMPRO 2024** Time: Oct 25, 2024 10:00 Bucharest
- Meeting ID: **716 9781 7019**
- First part: EURECA – PRO 2.0**
- Topic: Sustainable practices and circular economy
- Chair: Dan Codruț PETRILEAN
- Presentation format (hybrid):
- \* Presentation of the topic by the moderators - 15 min.
  - \* Presentations by EURECA PRO 2.0 and HI EURECA partners - 10 min./presentation
- 10:00 University of Petroșani – Building A – 1<sup>st</sup> floor, A1 Amphitheater
- WORKSHOP:** Soluții inovative pentru refacerea sănătății solului: culturi de biomasă pe terenuri neproductive / Innovative solutions for restoring soil health: biomass crops on unproductive lands
- 11:30 – 12:00 Coffee break
- 12:00 – 13:30 University of Petroșani – Building A – 1<sup>st</sup> floor, A4 Amphitheater
- Second part: HI EURECA**
- Topic: Mining heritage within the just transition
- Chair: Sabin IRIMIE
- Presentation format (hybrid):
- \* Presentation of the topic by the moderators - 15 min.
  - \* Presentations by EURECA PRO 2.0 and HI EURECA partners - 10 min./presentation

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<sup>1</sup> Bucharest Time

**PARALLEL SESSIONS**  
**THURSDAY 24.10.2024, 11:00 – 13:30, 14:30 – 16:45, 17:15 – 19:15**

<b>1. ADVANCES IN SAFETY SCIENCE AND OCCUPATIONAL RISK MANAGEMENT</b>		
University of Petroșani – Building A – 1 <sup>st</sup> floor, A1 Amphitheater		
<b>Chairpersons: Prof. Dr. Roland MORARU</b> <b>Sci. Res. Dr. Doru CIOCLEA</b>		
<b>Secretary of session: Lect. Dr. Mihai POPESCU-STELEA</b>		
1	Marius Kovacs and Alexandru Florin Simion - IDENTIFICATION OF THERMAL ENVIRONMENT IN WORKPLACES PRODUCING ADVANCED SUSPENSION SYSTEMS FOR THE COMMERCIAL VEHICLE INDUSTRY AND METHODS TO NORMALIZE WORKING CONDITIONS.	11:00 – 11:15
2	Ilie-Ciprian Jitea, Cristian Rădeanu, Bogdan Garaliu-Bușoi, Ștefan Ilici and Laszlo Robert - DEVELOPMENT OF TESTING INFRASTRUCTURE FOR MARITIME PYROTECHNIC ARTICLES	11:15 – 11:30
3	Gabriel Dragos Vasilescu, Daniela Carmen Rus, Ciprian Mateiu, Maria Andreica and Denisa Tudor - EVALUATION OF INDUSTRIAL RISK SPECIFIC TO THE TRANSPORT OF HAZARDOUS SUBSTANCES	11:30 – 11:45
4	Cosmin Ilie, George Artur Găman, Andrei Gireadă and Izabella Kovacs - THE USE OF THERMAL IMAGING TECHNOLOGY IN INTERVENTION AND RESCUE ACTIONS IN TOXIC, FLAMMABLE AND EXPLOSIVE ENVIRONMENTS	11:45 – 12:00
5	Lorand Toth, Andrei Gireadă, Alin Irimia and Izabella Kovacs - DISASTER MANAGEMENT AND FIRST AID ELEMENTS IN THE CASE OF ACCIDENTS WITH EMISSIONS OF FLAMMABLE - TOXIC GASES	12:00 – 12:15
6	Gheorghe Daniel Florea, Nicolae Ioan Vlasin, Vlad Mihai Pasculescu and Dan Codruț Petrilean - DYNAMICS OF HYDROGEN EXPLOSION PROPAGATION IN INTERCONNECTED SPACES	12:15 – 12:30
7	Sonia Suvar, Maria Prodan and Camelia Traista - EVALUATION OF THE AUTO-IGNITION TEMPERATURE OF DUST ACCUMULATIONS - CASE STUDY OF WASTE FROM THE AUTOMOTIVE INDUSTRY	12:30 – 12:45
8	Andrei Szollosi-Mota, Maria Prodan and Eugen Traista - DETERMINING THE AUTO-IGNITION TEMPERATURE OF PROCESS PETROLEUM PRODUCTS	12:45 – 13:00
9	Cristian Tomescu, Doru Cioclea, Sorina Stanila and Bogdan Tomus - EXPLOSION RISK PREVENTION IN A FOUNDRY HALL - CASE STUDY-	13:00 – 13:15
10	Florin Manea, Nicolae Ioan Vlasin and Vlad Mihai Pasculescu - DEVELOPMENT OF EXPERIMENTAL MODELS BASED ON APRIORI STUDIES OF HYDROGEN EXPLOSIONS EFFECTS	13:15 – 13:30
<b>Lunch break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby</b>		<b>13:30 – 14:30</b>
University of Petroșani – Building A – 1 <sup>st</sup> floor, A1 Amphitheater		
<b>Chairpersons: Sci. Res. Dr. Gabriel VASILESCU</b> <b>Sci. Res. Dr. Vlad PASCULESCU</b>		
<b>Secretary of session: Lect. Dr. Mihai POPESCU-STELEA</b>		
11	Alin Irimia, Daniel Pupazan, Cristian Nicolescu and Lorand Toth - RESEARCH ON THE MEANS OF IMPROVING THE TIMES OF LOCATING AND EVACUATING VICTIMS IN INTERVENTION AND RESCUE ACTIONS	14:30 – 14:45
12	Gabriela Pupăzan, Marius Darie, Tiberiu Csaszar and Alexandru Beldiman - IMPACT OF THE PRESENCE OF HYDROGEN ON TYPE TESTING OF PRESSURIZED HOUSINGS	14:45 – 15:00
13	Sorin Burian, Cosmin Colda and Danut Grecea - SELECTION OF EQUIPMENT THAT OPERATES IN POTENTIALLY EXPLOSIVE ATMOSPHERES GENERATED BY GASES, VAPORS AND MISTS	15:00 – 15:15
14	Adriana Andris, Marius Darie, Tiberiu Csaszar and Oana-Raluca Botea - ASPECTS OF THE STANDARDIZATION PROCESS FOR EXPLOSIVE ATMOSPHERES	15:15 – 15:30

15	Cristian Nicolescu, George Artur Gaman, Daniel Pupazan and Cosmin Ilie - TRAINING SCENARIOS OF MINING RESCUERS IN CONSIDERATION OF SELECTION AND TRAINING OF THE RESCUE TEAMS THAT CAN INTERVENE IN CASE OF MAJOR INCIDENTS	15:30 – 15:45
16	Adriana Milea and Lucian-Ionel Cioca - METHODS OF IDENTIFICATION AND ASSESSMENT OF RISKS OF OCCUPATIONAL INJURY AND DISEASE - THEIR SUITABILITY FOR THE ASSESSMENT OF EMERGING RISKS	15:45 – 16:00
17	Vass Zoltan, Bogdan Simon Marinica, Suvar Marius and Munteanu Laurentiu - DEVELOPING A PROGRAMMABLE ELECTRONIC CIRCUIT FOR THE CONTROLLED IGNITION OF EXPLOSIVE MIXTURES	16:00 – 16:15
18	Andrada Denisa Matei, Marius Simion Morar and Cristian Raul Cioara - EXAMINING THE INCORPORATION OF DIGITALIZATION INTO OCCUPATIONAL HEALTH AND SAFETY AND ITS PRACTICALITY: A COMPREHENSIVE ANALYSIS OF EXISTING LITERATURE	16:15 – 16:30
19	Ligia Ioana Tuhut, Florea Daniel and Emilian Ghicioi - EXPERIMENTAL MODEL FOR HYDROGEN EXPLOSION DYNAMICS ANALYSIS APPLYING AN AIR BUFFER CHAMBER TO INVESTIGATE THE CHANGE OF PROPAGATION DIRECTION	16:30 – 16:45
<b>Coffee break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby</b>		<b>16:45 – 17:15</b>
20	Doru Cioclea, Ion Gherghe, Florin Rădoi and Adrian Matei - CFD SIMULATION OF METHANE DISCHARGE DYNAMICS FROM ENCLOSURES CLOSED	17:15 – 17:30
21	Adrian Bogdan Simon-Marinica, Emilian Ghicioi, Florin Manea and Ligia Tuhut - CREATION OF EXPLOSIVE AIR-HYDROGEN MIXTURES FOR CONTROLLED PHYSICAL EXPERIMENTS	17:30 – 17:45
22	Alexandru Marian Beldiman, Gabriela Pupăzan and Adriana Andriș - CONSIDERATIONS WHEN CHOOSING EQUIPMENT FOR EXPLOSIVE ATMOSPHERES	17:45 – 18:00
23	Laurentiu Munteanu, Marius Suvar, Zoltan Vass and Adina Cristina Pasculescu - POST-EDITING OF IMAGES OBTAINED FROM PHYSICAL EXPERIMENTS OF HYDROGEN EXPLOSIONS	18:00 – 18:15
24	Andrei Szollosi-Mota, Irina Nalboc and Asimina Toplician - EVALUATION OF THE SELF-IGNITION TEMPERATURE OF DUST ACCUMULATIONS - CASE STUDY DRY VEGETABLE MATTER	18:15 – 18:30
25	Olga Miclea, Daniela Carmen Rus, Carla Enache, Denisa Tudor and Ciprian Mateiu - SOCIAL MECHANISMS AND HUMAN RESOURCE MANAGEMENT PRACTICES IN CREATIVITY-BASED ORGANIZATIONS	18:30 – 18:45
26	Georgeta Buică, Anca Elena Antonov, Constantin Beiu, Dragos Pasculescu and Mircea Risteiu - MANAGING THE RISKS OF INJURY AND OCCUPATIONAL DISEASE IN THE MAINTENANCE ACTIVITY OF WIND FARMS	18:45 – 19:00
<b>Q&amp;A</b>		

<b>2. CHALLENGES IN GEOLOGY, MINING AND MINERAL PROCESSING</b>		
+		
<b>3. SURVEYING AND CIVIL ENGINEERING</b>		
University of Petroșani – Building A – 1 <sup>st</sup> floor, A2 Amphitheater		
<b>Chairpersons: Prof. Dr. Carsten DREBENSTEDT</b>		
<b>Sci. Res. Dr. Robert LASZLO</b>		
<b>Secretary of session: Lect. dr. Roxana HERBEI</b>		
1	Valentyn Nazarenko, Hanna Brui and Olexandr Kuchin - INVESTIGATION OF THE ROCK DESTRUCTION INFLUENCE IN THE INCREASED ROCK PRESSURE ZONES ON THE STABILITY OF PREPARATORY MINE WORKINGS	11:00 – 11:15
2	Adrian Florea and Ciprian Danciu - GEOLOGICAL MODELS AND STABILITY ANALYSIS	11:15 – 11:30
3	Marius Cucaila, Simona Cucaila and Ioan Boroica - TOWN PLANNING AND CADASTRE IN MINING AREAS. CASE STUDY OF THE FORMER BAI A BORȘA MINING ZONE, MARAMUREȘ COUNTY	11:30 – 11:45

4	Dragoescu Razvan, Chiuзан Emeric, Gherghe Ion and Camarasescu Alexandru - NOTIONS REGARDING THE DESIGN AND DIMENSION OF A PARTIAL VENTILATION INSTALLATION -CASE STUDY -	11:45 – 12:00
5	Emeric Chiuзан, Boanta Corneliu, Matei Adrian, Dragoescu Razvan and Alexandru Camarasescu - THE STUDY OF THE GAS DYNAMIC REGIME OF A NEW OPEN SALT MINE TURDA, VALEA SARATA	12:00 – 12:15
6	Dan Gabor, Mihaela Părăian and Anca Tăzlăuanu - RELIABILITY OF BLASTING MACHINES USED TO INITIATE ELECTRICAL DETONATORS	12:15 – 12:30
7	Florin Radoi and Nicolae Ianc - CFD SIMULATION OF CARBON DIOXIDE CIRCULATION DYNAMICS IN A VENTILATION INSTALLATIONS TUBING	12:30 – 12:45
8	Vsevolod Kalinichenko, Mykola Stupnik, Olena Kalinichenko, Oleksandr Shepel and Volodymyr Pilchuk - ENVIRONMENTALLY FRIENDLY TECHNOLOGIES OF INTEGRATED OPEN PIT-UNDERGROUND MINING	12:45 – 13:00
9	Cristian Raul Cioara, Marius Simion Morar, Andrada Denisa Matei and Stefan Ilici - CHECKING THE SECURITY OF EXPLOSIVES FOR CIVIL USE UNDER CONDITIONS OF EXPOSURE TO HIGH TEMPERATURES	13:00 – 13:15
10	Dimitra Kondyla, Francis Pavloudakis, Ioannis Kapageridis, George Barakos, Christos Roumpos and Zach Agioutantis - EVALUATING THE EFFECTIVENESS OF CONTINUOUS SURFACE MINING SYSTEMS: LESSONS LEARNED FROM SIX DECADES OF LIGNITE EXTRACTION IN WESTERN MACEDONIA, GREECE	13:15 – 13:30
<b>Lunch break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby</b>		<b>13:30 – 14:30</b>
University of Petroșani – Building A – 1 <sup>st</sup> floor, A2 Amphitheater <b>Chairpersons: Prof. Dr. Francis PAVLOUDAKIS</b> <b>Sci. Res. Dr. Mihaela PĂRĂIAN</b> <b>Secretary of session: Lect. Dr. Klaus FISSGUS</b>		
11	Izabela-Maria Apostu and Constantin Rada - INTERDEPENDENCY BETWEEN THE SAFETY FACTOR AND GEOMETRIC ELEMENTS CHARACTERIZING THE WASTE DUMPS WITHIN THE BERBEȘTI MINING BASIN	14:30 – 14:45
12	Robert Laszlo, Ilie Ciprian Jitea, Stefan Ilici, Aurelian Nicola and Levente Miklos - TECHNICAL AND SAFETY SOLUTIONS FOR THE DEMOLITION BY BLASTING OF A TALL HYPERBOLOID COOLING TOWER	14:45 – 15:00
13	Carsten Drebenstedt - USE OF AI MACHINE LEARNING AND GIS – CASE STUDY EVALUATION OF DUMP STABILITY.	15:00 – 15:15
14	Ofelia Larisa Filip and Anca Daniela Filip - CONTRIBUTIONS TO THE DEVELOPMENT OF GEODETIC NETWORKS	15:15 – 15:30
15	Catalin Marian Nistor, Ladislau Radermacher, Cristina Tamara Dura and Ramona Nistor - INVESTIGATION OF THE DEFORMATION MECHANISM OPENING AND PREPARATION WORKS IN THE LIVEZENI MINING AREA	15:30 – 15:45
16	Ofelia Larisa Filip and Anca Daniela Filip - CORRELATIONS BETWEEN WEIGHTING COEFFICIENTS CORRESPONDING TO THE MEASUREMENT GROUPS	15:45 – 16:00
17	Edward Gheorghiosu and Silviu Becuț - DESIGN AND EXECUTION OF DRILLING AND BLASTING WORKS USING MODERN SCANNING TECHNIQUES	16:00 – 16:15
18	Mariana Ionela Dumitrache, Camelia Traista and Mihaela Dana Lang - PRELIMINARY STUDIES ON THE UTILIZATION OF SILICOMANGANESE SLURRY	16:15 – 16:30
19	Cristian Radeanu, Bogdan Garaliu-Busoi and Ladislau Radermacher - THE INFLUENCE OF STEMMING OF HOLES ON THE BREAKING YIELD OF ROCKS DEROCATED WITH EXPLOSIVES	16:30 – 16:45
20	Florin Faur and Daniel Moisuc-Hojda - AN OVERVIEW ON THE STABILITY CONDITIONS IN JILȚ NORTH OPEN PIT (OLTENIA MINING BASIN, ROMANIA)	16:45 – 17:00
<b>Q&amp;A</b>		

<b>4. SUSTAINABLE ENVIRONMENTAL ENGINEERING AND PROTECTION</b> <b>+</b> <b>6. RESPONSIBLE CONSUMPTION AND PRODUCTION</b> <b>Access link</b> <a href="https://us04web.zoom.us/j/71697817019?pwd=D4UgmoGvbuG4luCLOGyYyOWabbaZqS.1">https://us04web.zoom.us/j/71697817019?pwd=D4UgmoGvbuG4luCLOGyYyOWabbaZqS.1</a> Topic: <b>SIMPRO 2024</b> Time: Oct 24, 2024 09:00 Bucharest Meeting ID: <b>716 9781 7019</b>		
University of Petroșani – Building A – 1 <sup>st</sup> floor, A4 Amphitheater <b>Chairpersons: Prof. Dr. Dan Codruț PETRILEAN</b> <b>Prof. Dr. Zoltán VIRÁG</b> <b>Secretary of session: Lect. dr. Izabela Maria APOSTU</b>		
1	Paul Grigorescu - A CRITICAL ANALYSIS OF THE ROȘIA MONTANĂ UNESCO HERITAGE MINING AREA	11:00 – 11:15
2	Angelica-Nicoleta Gaman, Marius Kovacs and Izabella Kovacs - SPECTRAL ANALYSIS OF PLASTIC TYPES IN THE BED OF THE EASTERN JIU RIVER	11:15 – 11:30
3	Sorin Simion and Vlad Lautaru - CASE STUDY ON SPECTRAL CHARACTERISTICS OF ROAD TRAFFIC NOISE	11:30 – 11:45
4	Sonia Suvar, Irina Nalboc and Asimina Toplician - CHEMICAL CHARACTERIZATION OF INDUSTRIAL WASTE - CASE STUDY	11:45 – 12:00
5	Daniel Dicu, Mihai Herbei, Radu Bertici, Adrian Smuleac, Roxana Herbei, Simona Cucaila and Marius Cucaila - MORPHOLOGIC STUDY OF LAND COVER FROM FARDEA ADMINISTRATIVE TERRITORY, TIMIS COUNTY	12:00 – 12:15
6	Mihaela Paraian, Angelica-Nicoleta Gaman, Andreea Tataru and Sorin Iuliu Mangu - LIMITATION OF RADON CONCENTRATION IN BUILDINGS, A REQUIREMENT FOR PEOPLE'S HEALTH	12:15 – 12:30
7	Ioniță Mădălina-Flavia and Radu Sorin Mihai - ASSESSMENT OF THE POLLUTION LEVEL AND DETERMINATION OF THE GEO-ACCUMULATION INDEX OF HEAVY METALS IN THE SOIL FROM THE OLD FUNICULAR DUMP AREA - URICANI	12:30 – 12:45
8	Ladislau Radermacher, Florin Faur and Diana Marchiș - THE ENVIRONMENTAL IMPACT OF NATURAL GAS PIPELINE ACCIDENTS	12:45 – 13:00
9	Alexandru Florin Simion - DEVELOPMENT OF A METHODOLOGY FOR SIMULTANEOUS ANALYSIS OF PESTICIDE RESIDUES IN WATER BY GAS CHROMATOGRAPHY-MASS SPECTROMETRY (GC-MS/MS).	13:00 – 13:15
10	Emilia-Cornelia Dunca, Sorin-Mihai Radu, Sabin Irimie, Lucia-Ana Varga and Fabian Panaite - LIVING LAB - A SYSTEMIC INNOVATION APPROACH TO RESTORE SOIL HEALTH ON UNPRODUCTIVE LAND IN THE JIU VALLEY	13:15 – 13:30
<b>Lunch break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby</b>		<b>13:30 – 14:30</b>
University of Petroșani – Building A – 1 <sup>st</sup> floor, A4 Amphitheater <b>Chairpersons: Assoc. Prof. Dr. Ion Doșa</b> <b>Sci. Res. Dr. Angelica-Nicoleta GĂMAN</b> <b>Secretary of session: Lect. dr. Daniel MOISUC-HOJDA</b>		
11	Emilia-Cornelia Dunca, Maria Lazăr, Ciprian-Gheorghe Danciu, Camelia Madear and Lucia-Ana Varga - EVALUATION OF THE STATE OF QUALITY OF NON-PRODUCTIVE LANDS IN THE JIU VALLEY WITH A VIEW TO THEIR VALORISATIONS THROUGH BIOMASS CROPS	14:30 – 14:45
12	Stanci Aurora - METHODS OF ISOLATING BUILDINGS IN ORDER TO REDUCE THE LEVEL OF NOISE POLLUTION INSIDE THEM.	14:45 – 15:00
13	Iulian Vladuca, Sorinel Popescu, Stela Dinescu, Stefan Alexandru Serban and Ramona-Manuela Stanciuc - CONSIDERATIONS OVER THE PRODUCTION, TRANSPORT AND STORAGE OF THE HYDROGEN USING THE NATURAL GAS PIPE SYSTEM, IN A MAXIMUM MIX OF 25%V/V	15:00 – 15:15
14	Stanci Aurora - MONITORING THE LEVEL OF RADIOACTIVITY PRESENT IN THE AIR IN THE MUNICIPALITY OF LUPENI	15:15 – 15:30
15	Tataru Andreea Cristina and Tataru Dorin - SOLUTIONS FOR THE REUSE OF AREAS AFFECTED BY COAL EXTRACTION AT LUPENI MINE	15:30 – 15:45

16	Izabela-Maria Apostu, Maria Lazar and Eugen Traistă - QUICK METHOD FOR CHOOSING PLANT SPECIES TO ACCELERATE PEDOGENESIS ON WASTE DUMPS	15:45 – 16:00
17	Chrysoula Pagouni, Francis Pavludakis, Ioannis Kapageridis and Evangelos Karlopoulos - SELECTION OF POST-QUARRYING LAND USES IN WESTERN MACEDONIA, GREECE, USING A HYBRID MULTI-CRITERIA METHOD	16:00 – 16:15
18	Mihai Victor Zerbes, Liliana Georgeta Popescu and Alexandra-Georgiana Rotunjanu - DEVELOPMENT OF A MODEL FOR IMPROVING ENVIRONMENTAL ASPECTS IN AN AUTOMOTIVE COMPANY	16:15 – 16:30
19	Rodica Cujba Stepanek and Maria Lazar - COPPER MINING'S GREEN REVOLUTION - SUSTAINABLE TECHNIQUES AND TECHNOLOGIES SHAPING THE FUTURE	16:30 – 16:45
<b>Coffee break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby</b>		<b>16:45 – 17:15</b>
20	Alexandra Soica, Nicoleta Negru, Razvan Bogdan Iu and Susana Apostu - PUBLIC OPINION ABOUT THE IMPACT OF RENEWABLE ENERGY SOURCES ON THE ENVIRONMENT OF JIU VALLEY	17:15 – 17:30
21	Alexandra Soica, Nicoleta Negru, Sorin Mihai Radu and Angela Egri - RESEARCH ON REDUCING PM10 PARTICLES IN THE JIU VALLEY AREA AS A RESULT OF USING PHOTOVOLTAIC PANELS IN ELECTRICITY PRODUCTION	17:30 – 17:45
22	Clementina Sabina Moldovan and Liana Simona Sbirna - „GHG INTENSITY” – METRIC THAT SURPASSES „CARBON FOOTPRINT” IN ACCURATELY AND EFFECTIVELY EXPRESSING THE IMPROVEMENT OF A TECHNOLOGICAL PROCESS IN TERMS OF CARBON EMISSIONS' REDUCTION	17:45 – 18:00
23	Camelia Madear and Cristina Stoica Rus - ENHANCING ENVIRONMENTAL SUSTAINABILITY THROUGH INDUSTRIAL SYMBIOSIS: RESEARCH ON THE DEVELOPMENT OF AN ECO-INDUSTRIAL PARK IN JIU VALLEY USING ANALYTICAL HIERARCHY PROCESSES	18:00 – 18:15
24	Elena Cristina Rada, Anzhelika Karaeva, Vincenzo Torretta, Gabriela Bâscă, Mihai-Victor Zerbes, Anca Tulbure and Ramona Giurea - THE DEVELOPMENT OF AN ENERGY SYSTEM MODEL FROM RENEWABLE SOURCES IN AGRO-TOURISM STRUCTURES	18:15 – 18:30
25	Maria-Isabela Ghicajanu Cașotă and Dan Codruț Petrilean - ENERGY CONSUMPTION AND RESOURCE ALLOCATION MADE MORE EFFICIENT THROUGH ARTIFICIAL INTELLIGENCE: AI-DRIVEN DESIGN OPTIMIZATION FOR HVAC (HEATING, VENTILATION, AND AIR CONDITIONING) SYSTEM	18:30 – 18:45
<b>Q&amp;A</b>		

<b>5. INNOVATIONAL CHALLENGES IN ELECTRICAL ENGINEERING AND ENERGETIC TECHNOLOGY</b> + <b>7. DEVELOPMENTS IN SYSTEMS CONTROL, INFORMATION TECHNOLOGY AND CYBER SECURITY</b> + <b>8. INDUSTRIAL, MECHANICAL AND TRANSPORTATION ENGINEERING</b>		
University of Petroșani – Building A – 1 <sup>st</sup> floor, A3 Amphitheater <b>Chairpersons: Assoc. Prof. Dr. Nicolae PĂTRĂȘCOIU</b> <b>Sci. Res. Dr. Sorin BURIAN</b> <b>Secretary of session: Lect. dr. Florin G. POPESCU</b>		
1	Maria Daniela Stochitoiu and Ilie Utu - THE MODERN TECHNOLOGY IMPLEMENTATION FOR SAFE ENERGY TRANSITION	11:00 – 11:15
2	Lucian Moldovan, Mihai Magyari, Clementina Sabina Moldovan and Sorin Rasnoveanu - PARTICULARITIES REGARDING THE DETERMINATION OF MAXIMUM SURFACE TEMPERATURE OF JUNCTION BOXES WITH TYPE OF PROTECTION INCREASED SAFETY “E” DESIGNED FOR USE IN GASEOUS EXPLOSIVE ATMOSPHERES	11:15 – 11:30

3	Mihai Magyari, Dragos Fotau and Sorin Zsido - ASPECTS REGARDING THE USE OF VARIABLE SPEED DRIVES IN THE CASE OF EXPLOSION PROTECTED ELECTRIC MOTORS USED IN EXPLOSIVE ATMOSPHERES	11:30 – 11:45
4	Sorin Rasnoveanu, Sorin Zsido and Diana Salasan - CONSIDERATIONS REGARDING THE NEW REQUIREMENTS OF THE CURRENT STANDARDS REGARDING THE EXPLOSION PROTECTION OF EQUIPMENT OPERATING IN ENVIRONMENTS WITH POTENTIALLY EXPLOSIVE ATMOSPHERES.	11:45 – 12:00
5	Adina Cristina Pasculescu, Gabriel Dragos Vasilescu, Dragos Pasculescu, Alexandru Santa and Claudius Andrei Popescu - COMPUTATIONAL STUDY OF HYDROGEN DISPERSION, FIREBALL AND EXPLOSION FOR ENHANCED INFRASTRUCTURE SAFETY	12:00 – 12:15
6	Dragos Fotau, Marcel Daniel Rad, Diana Salasan and Valentin Sirbu - ASPECTS REGARDING THE USAGE OF THE HIGH VOLTAGE IMPULSE GENERATOR IN ORDER TO VERIFY THE INSULATION SYSTEMS OF ELECTRIC MOTORS USED IN POTENTIALLY EXPLOSIVE ATMOSPHERE	12:15 – 12:30
7	Alina Stepanek and Arun Fabian Panaite - A LITERATURE REVIEW ON INTEGRATING AI AND BLOCKCHAIN TECHNOLOGIES IN ANIMATRONICS FOR CHILDREN'S ENTERTAINMENT AND EDUCATION	12:30 – 12:45
8	Emanuel Muntean and Monica Leba - MIMICKING HUMANOID ROBOT GAIT USING HUMAN MOTION DATA FROM IMU	12:45 – 13:00
9	Cosmin Rus and Monica Leba - AUTONOMOUS INDOOR NAVIGATION SYSTEM CONCEPT: HARDWARE AND SOFTWARE INTEGRATION FOR ELECTRIC VEHICLES	13:00 – 13:15
10	Constantin Beiu, Georgeta Buică, Anca Elena Antonov, Dragos Pasculescu and Mircea Risteiu - ARC FLASH DETECTION ON PHOTOVOLTAIC SYSTEMS	13:15 – 13:30
<b>Lunch break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby</b>		<b>13:30 – 14:30</b>
University of Petroșani – Building A – 1 <sup>st</sup> floor, A3 Amphitheater <b>Chairpersons: Prof. Dr. Monica LEBA</b> <b>Sci. Res. Dr. Lucian MOLDOVAN</b> <b>Secretary of session: Lect. dr. Arun Fabian PANAITE</b>		
11	Nicolae Patrascoiu - HARDWARE AND SOFTWARE USED FOR THE STUDY OF ANGULAR MOTION BY REMOTE CONTROL	14:30 – 14:45
12	Stanislav Shykhov, Vladyslav Knysh and Oleksii Plahunov - DEVELOPMENT OF A MOBILE PLATFORM WITH A MANIPULATOR ROBOT	14:45 – 15:00
13	Florin Mureșan-Grecu, Florin-Gabriel Popescu, Marius-Daniel Marcu, Dragoș Păsculescu and Teodora Lazăr - MODERNIZATION OF ELECTRICAL INSTALLATIONS FOR LIGHTING AND POWER IN THE ELECTROPOWER LABORATORY OF THE UNIVERSITY OF PETROȘANI	15:00 – 15:15
14	Cosmin Colda, Sorin Burian, Danut Grecea and Gheorghe Marc - RESEARCH ON USE OF METHANE GAS FROM THE DEGASSING OF COAL SEAMS AND THE COGENERATION PRODUCTION OF ELECTRICITY AND THERMAL ENERGY	15:15 – 15:30
15	Alexandru George Costinaș, Marius Leonard Olar and Sebastian Rosca - CHALLENGES IN INTEGRATING ARTIFICIAL INTELLIGENCE FOR ENHANCED ROBOTIC AUTONOMY AND INTERACTION"	15:30 – 15:45
16	Remus Sibisanu, Tudor Manole and Cosmin Rus - DEVELOPING AN AUTONOMOUS DRONE FOR EARLY DETECTION OF FOREST FIRES	15:45 – 16:00
17	Victor Triohin and Tudor Manole - MODELING AND IMPLEMENTATION OF THE DASHBOARD INTERFACE FOR ELECTRIC VEHICLES USING ADVANCED SIMULATION TECHNOLOGIES AND NAVIGATION APIS	16:00 – 16:15
18	Razvan Bogdan Itu, Florin Vilceanu and Gheorghe Bogdan Urdea - DETERMINING THE POSITION OF THE CENTER OF GRAVITY BY TENSIO-METRIC MEASUREMENTS FOR THE MACHINES WITH BUCKET WHEELS USED TO TAKE OUT COAL FROM STORES	16:15 – 16:30

19	Adrian Jurca, Dan Gabor and Mirela Radu - SPECIFIC REQUIREMENTS FOR SELECTING PROTECTIVE SYSTEMS FOR TECHNOLOGICAL INSTALLATIONS WITH COMBUSTIBLE DUST	16:30 – 16:45
<b>Coffee break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby</b>		<b>16:45 – 17:15</b>
20	Florin Vlăceanu, Stela Dinescu, Adriana Estera Tufiș and Ilie Iucal - EVALUATION OF THE CORRELATION BETWEEN MECHANICAL TENSION AND FREQUENCIES FOR RESISTANCE ELEMENTS OF MINING MACHINERY USING ADVANCED MEASUREMENT TECHNIQUES	17:15 – 17:30
21	Florin Adrian Paun, Adrian Marius Jurca, Anca Alexandra Tazlauanu and Ana Petrina Paun - DETERMINATION BY STANDARDIZED TEST METHODS OF THE DRUM FRICTION RESISTANCE PERFORMANCE OF CONVEYOR BELTS USED IN THE UNDERGROUND AND AT SURFACE	17:30 – 17:45
22	Florin Adrian Paun and Catalin Mihai Popa - ENSURING THE PROTECTION AGAINST ATMOSPHERIC DISCHARGES OF TECHNICAL INSTALLATIONS OPERATING IN ENVIRONMENTS WITH THE RISK OF POTENTIALLY EXPLOSIVE ATMOSPHERES GENERATED BY HYDROGEN	17:45 – 18:00
23	Alina Panciu, Lucian Lobonț and Mihai Victor Zerbes - IS THE EUROPEAN INFRASTRUCTURE READY FOR LONG HAUL ELECTRIC TRANSPORTATION? AN ANALYSIS OF A FREIGHT TRANSPORT FROM ROMANIA TO GERMANY USING AN ELECTRIC SEMI-TRAILER TRUCK	18:00 – 18:15
24	Mirela Ancuta Radu, Catalin Mihai Popa and Ana Petrina Paun - ASPECTS OF EARTHING OF INSTALLATIONS IN ENVIRONMENTS WITH POTENTIALLY EXPLOSIVE ATMOSPHERES	18:15 – 18:30
25	Simona Riurean and Tatiana Antipova - PREBUNKING, AN EFFECTIVE DEFENSE MECHANISM TO STRENGTHEN CONSUMERS' CYBER AWARENESS	18:30 – 18:45
26	Alex Juhász and Zoltán Virág - DYNAMIC ANALYSIS OF A BUCKET WHEEL EXCAVATOR BOOM USING FEA	18:45 – 19:00
27	Johan Cañar - DESIGN OF AN INVENTORY CONTROL SYSTEM TO IMPROVE THE SERVICE LEVEL IN A MOTORCYCLE SPARE PARTS WAREHOUSE IN THE CITY OF PALMIRA	19:00 – 19:15
28	Valery Boroday, Olga Nesterova și Vladyslav Naida- APPLICATION OF ALTERA PROGRAMMED LOGIC INTEGRATED CIRCUIT IN EFFICIENT ASYNCHRONOUS DRIVE SYSTEM	19:15 – 19:30
<b>Q&amp;A</b>		

<p><b>9. RECENT TRENDS IN BUSINESS, ECONOMICS, LAW AND PUBLIC ADMINISTRATION</b> +</p> <p><b>10. CONTEMPORARY APPROACHES IN QUALITY ASSURANCE, MANAGEMENT AND MARKETING</b> +</p> <p><b>11. SUSTAINABLE DEVELOPMENT IN HUMANITIES, SOCIAL SCIENCES, EDUCATION RESEARCH AND INTERDISCIPLINARY STUDIES</b></p> <p><b>Access link</b>  <a href="https://us06web.zoom.us/j/89738007255?pwd=j5pyWjd6d5Vi9ilPxcnhjhbq1aWLii.1">https://us06web.zoom.us/j/89738007255?pwd=j5pyWjd6d5Vi9ilPxcnhjhbq1aWLii.1</a>  Topic: <b>Faculty of Science Boardroom - SIMPRO 2024</b> Time: Oct 24, 2024 11:00 AM Bucharest  Meeting ID: <b>897 3800 7255</b></p>		
University of Petroșani – Building A – 1 <sup>st</sup> floor, Faculty of Science Conference Room <b>Chairpersons: Prof. Dr. Codruța DURA</b> <b>Assoc. Dr. Julia Sishchuk</b> <b>Secretary of session: Lect. Dr. Raluca-Anamaria NICOLAESCU</b>		
1	Vasile-Ibrian Caramidaru - EX-POST PROJECT COMPARISONS: FROM TRIPLE CONSTRAINT MEASUREMENTS TO AGGREGATED ORGANIZATIONAL IMPACT	11:00 – 11:15
2	Cătălin-Ilie Mitran - CONSIDERATIONS ON COMMON PRACTICAL APPLICATIONS OF NORMAL DISTRIBUTION	11:15 – 11:30

3	Maria Elena Boatca, Sabina Irimie and Adrian Pal - MONITORING THE JUST TRANSITION IN JIU VALLEY, ROMANIA	11:30 – 11:45
4	Raul Ionut Riti, Andreea Cristina Ionica and Monica Leba - ENHANCING TEAM AND TECHNICAL AGILITY THROUGH SAFE® METHODOLOGY AND A THREE-DIMENSIONAL DIAGNOSTIC APPROACH TO ANTI-PATTERNS IN THE FINANCIAL INDUSTRY	11:45 – 12:00
5	Samuil Ionela - THE BUSINESS MODEL: WAY TO HIGHLIGHT THE CAUSE-AND-EFFECT RELATIONSHIPS BETWEEN STAKEHOLDERS AND MONEY	12:00 – 12:15
6	Elena Cojocari and Stanislav Cseminski - TRIZ AS A TOOL THAT INCORPORATES ART FOR THE EVOLUTION OF INNOVATIVE PROJECTS	12:15 – 12:30
7	Alexandrina Moisuc - THE POTENTIAL IMPACT OF EMOTIONS ON SUSTAINABLE DEVELOPMENT PRACTICES	12:30 – 12:45
8	Agnieszka Kosciuszko and Sabin Irimie - NEW WAYS OF NETWORKING AND MANAGING THE EUROPEAN UNIVERSITY ALLIANCES – BASED ON THE EXAMPLE OF FOREU2 SWAFS HORIZON PROJECT NETWORK	12:45 – 13:00
9	Alexandrina Moisuc and Daniel Moisuc-Hojda - SUSTAINABLE APPROACHES TO INTERNATIONAL HIRING	13:00 – 13:15
10	Elena-Loredana Stancioiu, Cristina Andreea Ionica, Monica Leba and Ionela Samuil - EXPLORING THE DYNAMICS: INNOVATIONS, SUSTAINABILITY AND COMMUNITY DEVELOPMENT OF AGRITOURISM IN GORJ COUNTY	13:15 – 13:30
<b>Lunch break – University of Petroșani – Building A – 2<sup>nd</sup> floor AULA lobby</b>		<b>13:30 – 14:30</b>
University of Petroșani – Building A – 1 <sup>st</sup> floor, Faculty of Science Conference Room <b>Chairpersons: Prof. Dr. Andreea IONICĂ</b> <b>Assoc. Dr. Agnieszka KOSCIUSZKO</b> <b>Secretary of session: Assoc. Prof. Dr. Mihaela GHICĂJANU</b>		
11	Barbara Wedler and Sarah Wiesemann - KRAFT-COPILOT - A JOINT PROJECT THAT TRANSCENDS DISCIPLINARY AND PROFESSIONAL BOUNDARIES – <a href="#">online presentation</a>	14:30 – 14:45
12	Barbara Wedler and Sandra Kuhn - WE TOGETHER - FOR THE CLIMATE, EDUCATION, DEMOCRACY – <a href="#">online presentation</a>	14:45 – 15:00
13	Dura Codruta, Drigă Imola, Popescu Mirela and Preda Ana - AN ANALYSIS BY ONE-WAY ANOVA STATISTIC EXPERIMENT ON THE EFFECTS OF PRODUCT PACKAGING UPON SALES VOLUME	15:00 – 15:15
14	Raluca Nicolaescu - OPTIMIZING SOFTWARE QUALITY: LESSONS FROM AGILE AND DEVOPS PRACTICES	15:15 – 15:30
15	Julia Sishchuk - EUROPEAN QUALITY ASSURANCE STANDARDS AND ITS IMPLEMENTATION BY THE DEVELOPMENT OF JOINT STUDY PROGRAMMES	15:30 – 15:45
<b>Q&amp;A</b>		

**ROUND TABLES & WORKSHOP**  
**FRIDAY 25.10.2024, starting at 10:00**

**ROUNDTABLES - EUROPEAN UNIVERSITY ALLIANCES**



10:00 – 11:30 University of Petroșani – Building A – 1<sup>st</sup> floor, A4 Amphitheater  
**First part: EURECA – PRO 2.0**  
Topic: Sustainable practices and circular economy  
Chair: Dan Codruț PETRILEAN  
Presentation format (hybrid):  
\* Presentation of the topic by the moderators - 15 min.  
\* Presentations by EURECA PRO 2.0 and HI EURECA partners - 10 min./presentation  
\* Debates  
**Access link**  
<https://us04web.zoom.us/j/71697817019?pwd=D4UgmoGvbuG4luCLOGyYyOWabbaZqS.1>  
Topic: **SIMPRO 2024** Time: Oct 25, 2024 10:00 Bucharest  
Meeting ID: **716 9781 7019**

10:00 University of Petroșani – Building A – 1<sup>st</sup> floor, A1 Amphitheater



Sol-Alim  
CentruCompetenta

**WORKSHOP:** Soluții inovative pentru refacerea sănătății solului: culturi de biomasă pe terenuri neproductive / Innovative solutions for restoring soil health: biomass crops on unproductive lands

11:30 – 12:00 Coffee break



12:00 – 13:30 University of Petroșani – Building A – 1<sup>st</sup> floor, A4 Amphitheater  
**Second part: HI EURECA**  
Topic: Mining heritage within the just transition  
Chair: Sabin IRIMIE  
Presentation format (hybrid):  
\* Presentation of the topic by the moderators - 15 min.  
\* Presentations by EURECA PRO 2.0 and HI EURECA partners - 10 min./presentation  
\* Debates  
**Access link**  
<https://us04web.zoom.us/j/71697817019?pwd=D4UgmoGvbuG4luCLOGyYyOWabbaZqS.1>  
Topic: **SIMPRO 2024** Time: Oct 25, 2024 10:00 Bucharest  
Meeting ID: **716 9781 7019**

**ÎN PARTENERIAT CU / IN PARTNERSHIP WITH:**

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**Sindicatul CDPM din Universitatea din Petroșani  
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