

**9<sup>th</sup> International Symposium on  
Occupational Health and Safety**

# **SESAM 2019**

## **SYMPOSIUM PROGRAM**

**MAIN ORGANIZER**

**INSEMEX**



**CO-ORGANIZERS**



**LABOUR INSPECTION**

**UNDER THE AUSPICES OF**



**Academy of Romanian Scientists  
AOSR**



**MINISTRY OF RESEARCH  
AND INNOVATION**



**Academy of Technical Sciences in  
Romania  
ASTR**

**3<sup>rd</sup> October 2019  
PETROSANI, ROMANIA**

# Location of Events

## 1. Scientific Event

### University of Petroșani

**Address:** 20 Universității str., 332006 Petroșani, Hunedoara county, Romania

**GPS Coordinates:** 45°25'11.5"N 23°22'35.3"E



## 2. Gala Dinner

### Rusu Hotel Grand Ballroom

**Address:** DJ709F, Hunedoara county, Romania (10 km distance from the University)

**GPS Coordinates:** 45°23'25.1"N 23°26'23.8"E



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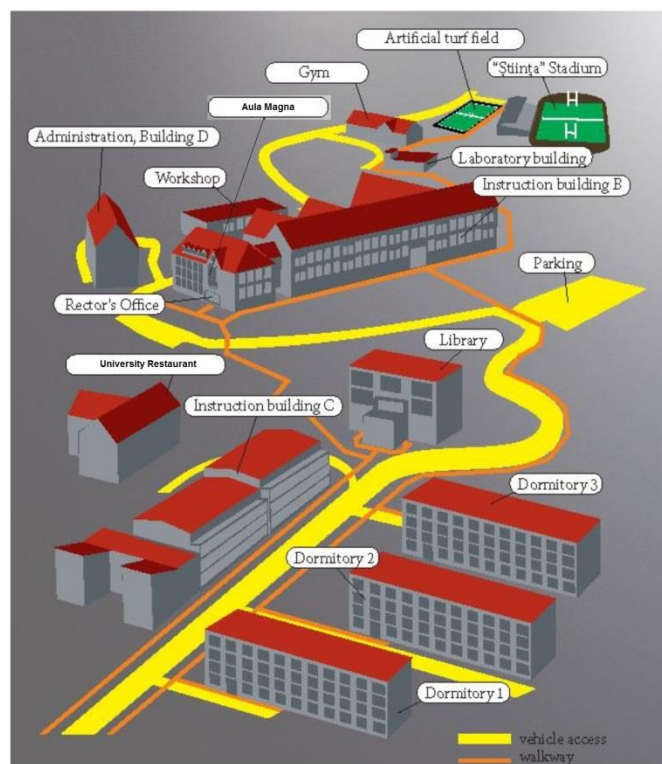
*We would like to sincerely thank the reviewers for their careful evaluation and the excellent feedback provided to the authors. It is the collective effort that resulted in the strong symposium program and quality of the papers accepted for presentation within SESAM 2019.*

# Program Overview

## Thursday, 3rd October 2019

- 08<sup>00</sup> – 09<sup>00</sup>** Registration, Aula Magna Hall, **Building B**
- 09<sup>00</sup> – 10<sup>00</sup>** Opening Ceremony, Aula Magna, **Building B**
- 10<sup>00</sup> – 10<sup>30</sup>** Coffee Break, Aula Magna Hall, **Building B**
- 10<sup>30</sup> – 13<sup>00</sup>** Morning Parallel Sessions
- **Building B, Rooms:** Geology Laboratory, A3 Amphitheatre, A4 Amphitheatre, Faculty of Sciences Council Hall
  - **Library Building:** Library Conference Hall
- 13<sup>00</sup> – 14<sup>00</sup>** Lunch Break, **University Restaurant**
- 14<sup>00</sup> – 16<sup>30</sup>** Afternoon Parallel Sessions:
- **Building B, Rooms:** Geology Laboratory, A3 Amphitheatre, A4 Amphitheatre, Faculty of Sciences Council Hall
  - **Library Building:** Library Conference Hall
- 16<sup>30</sup> – 19<sup>00</sup>** Free Time
- 19<sup>00</sup> – 00<sup>00</sup>** Gala Dinner, **Rusu Hotel Grand Ballroom**

## Campus Map – University of Petroșani



### Important notes:

- A paper will be published online with open-access in MATEC Web of Conferences, **ONLY if it is presented** within the symposium.
- The official languages of the symposium are **English** and **Romanian**, simultaneous translation being not provided.
- Presenters must develop the slideshow presentations (PowerPoint) **only in English**.

# Morning Parallel Sessions

<b>Room 1: Geology Laboratory</b>		
<b>Morning Session 1, 10<sup>30</sup> – 13<sup>00</sup></b>		
<b>Chairmen: Angelica Nicoleta CĂLĂMAR, Csaba LORINȚ</b>		
<b>1.</b>	<b>10<sup>30</sup> – 10<sup>45</sup></b>	<b>REMOVAL OF HEAVY METALS FROM A CONTAMINATED SOIL USING PHYTOREMEDIATION</b> Authors: Georgiana Luiza Arnold Tatu, Nicolae Valentin Vlăduț, Iulian Voicea, Nicoleta Alexandra Vanghele and Mirabela Augustina Pruteanu
<b>2.</b>	<b>10<sup>45</sup> – 11<sup>00</sup></b>	<b>ASSESSMENT OF EMERGENCY CONSEQUENCES AND HAZARDOUS FACTORS IMPACT FROM THE PROCESS OF EXPLOSIVE CONVERSION PRODUCTS AND MATERIALS DISPOSAL</b> Authors: Vasyliy Holinko, Yevheniy Ustymenko, Volodymyr Bondarenko and Iryna Kovalevska
<b>3.</b>	<b>11<sup>00</sup> – 11<sup>15</sup></b>	<b>RESEARCH ON THE ADVANTAGES OF IN SITU INVESTIGATION OF AIR QUALITY PARAMETERS BY MEANS OF ENVIRONMENTAL AUTO LABORATORIES</b> Authors: Angelica Nicoleta Călămar, Lorand Toth, Sorin Simion and Marius Kovacs
<b>4.</b>	<b>11<sup>15</sup> – 11<sup>30</sup></b>	<b>STATISTICAL ANALYSIS BASED ON AIR QUALITY CONTROL DATA GATHERED WITHIN A SOUTHERN ROMANIAN METROPOLITAN AREA DURING THE FIRST HALF OF 2019</b> Authors: Clementina Sabina Moldovan, Liana-Simona Sbîrnă and Sebastian Sbîrnă
<b>5.</b>	<b>11<sup>30</sup> – 11<sup>45</sup></b>	<b>STUDY OF POTENTIAL WIND POWER AS A RENEWABLE ENERGY SOURCE IN THE MOTRU AREA</b> Authors: Alin Sultan, Marin Silviu Nan, Cristian Ilioni, Daniel Cosmin Vitan and Nicoleta Mamara Raicea
<b>6.</b>	<b>11<sup>45</sup> – 12<sup>00</sup></b>	<b>ASSESSING THE HEAVY METAL POLLUTION LEVEL IN JIU VALLEY BY BIO-MONITORING INFERIOR PLANTS - MOSS</b> Authors: Andrei Szollosi-Moța, Maria Prodan, Irina Vasilica Nălboc and Niculina Sonia Șuvar
<b>7.</b>	<b>12<sup>00</sup> – 12<sup>15</sup></b>	<b>LORA COMMUNICATION AND GEOLOCATION SYSTEM FOR SENSORS NETWORK</b> Authors: Cosmin Rus, Monica Leba, Razvan Marcus, Lilla Pellegrini and Alin Costandoiu
<b>8.</b>	<b>12<sup>15</sup> – 12<sup>30</sup></b>	<b>PROPOSALS ON ESTABLISHING A METHODOLOGY FOR THE SYSTEMATIC ANALYSIS OF ENERGY COAL MIXTURES IN JUDICIAL PRACTICE</b> Authors: Csaba Lorinț, Eugen Traistă and Adrian Florea
<b>9.</b>	<b>12<sup>30</sup> – 12<sup>45</sup></b>	<b>THE COMPARATIVE ANALYSIS OF THE USE OF WOOD WASTE AND NATURAL GAS IN HOT BIOGENERATORS FROM AN ENERGETIC, ECONOMIC AND ECOLOGIC POINT OF VIEW</b> Authors: Mihaela Dana Racz, Anton Darsy, Dan Codruț Petrilean, Sabin Ioan Irimie and Simona Cucăilă
<b>10.</b>	<b>12<sup>45</sup> – 13<sup>00</sup></b>	<b>PERFORMING COMPARATIVE DETERMINATIONS ON POLLUTANT IMMISSIONS THROUGH REFERENCE METHODS AND BY MEANS OF INFRARED SPECTROSCOPY</b> Authors: Lorand Toth, Angelica Nicoleta Călămar, Alexandru Florin Simion and Alin Irimia
<b>13<sup>00</sup> – 14<sup>00</sup></b>		Lunch Break, <b>University Restaurant</b>

## Room 2: A3 Amphitheatre

Morning Session 2, 10<sup>30</sup> – 13<sup>00</sup>

Chairmen: Emilian GHICIOI, Mihaela PĂRĂIAN

1.	10 <sup>30</sup> – 10 <sup>45</sup>	<b>ASPECTS CONCERNING THE INFLUENCE OF THE DESIGN OF FLAMEPROOF ELECTRIC MOTORS ON MAXIMUM EXPLOSION PRESSURES</b> Authors: Mihai Magyari, Lucian Moldovan and Diana Sălășan
2.	10 <sup>45</sup> – 11 <sup>00</sup>	<b>CARBON STEEL CARBINERS IMPROVEMENTS FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES</b> Authors: Diana-Petronela Burduhos-Nergis, Costică Bejinariu, Ștefan-Lucian Toma, Andrei Cătălin Țuguu and Elena-Raluca Baci
3.	11 <sup>00</sup> – 11 <sup>15</sup>	<b>DETERMINING THE MAXIMUM SURFACE TEMPERATURE FOR NON-ELECTRICAL EQUIPMENT AIMING AT EXPLOSION PREVENTION AT PROTECTION</b> Authors: Adrian Marius Jurca, Niculina Vătavu, Leonard Lupu and Mihai Cătălin Popa
4.	11 <sup>15</sup> – 11 <sup>30</sup>	<b>ELECTRICALLY ACTUATED VALVES FOR GAS COMPRESSION INSTALLATIONS LOCATED IN POTENTIALLY EXPLOSIVE ATMOSPHERES</b> Authors: Cristian Nechifor, Claudia Borzea, Iulian Vlăducă, Ion Mălăel and Filip Niculescu
5.	11 <sup>30</sup> – 11 <sup>45</sup>	<b>IMPORTANCE OF TRAINING THE PERSONNEL PERFORMING SPECIFIC ACTIVITIES RELATED TO EQUIPMENT / INSTALLATIONS OPERATING IN AREAS CLASSIFIED AS WITH POTENTIALLY EXPLOSIVE ATMOSPHERES</b> Authors: Lucian Moldovan, Mihai Magyari, Adriana Andriș, Gabriela Pupăzan and Clementina Sabina Moldovan
6.	11 <sup>45</sup> – 12 <sup>00</sup>	<b>RESEARCH ON THE IMPROVEMENT OF TEST METHODS FOR THE DETERMINATION OF DUST PENETRATION IN ENCLOSURES OF EQUIPMENT INTENDED FOR EXPLOSIVE ATMOSPHERES</b> Authors: Niculina Vătavu, Adrian Marius Jurca, Sorin Vătavu and Dan Gabor
7.	12 <sup>00</sup> – 12 <sup>15</sup>	<b>RESEARCH REGARDING THE ELECTRIFICATION RISK OF MATERIALS, TECHNICAL EQUIPMENT AND APPEARANCE OF ELECTROSTATIC DISCHARGES IN THE PRESENCE OF EXPLOSIVE ATMOSPHERES</b> Authors: Florin Adrian Păun, Mihaela Părăian, Mihai Cătălin Popa and Dan Gabor
8.	12 <sup>15</sup> – 12 <sup>30</sup>	<b>TECHNICAL REQUIREMENTS FOR ENTRIES IN FLAMEPROOF ENCLOSURES OPERATING IN POTENTIALLY EXPLOSIVE ATMOSPHERES</b> Authors: Marcel Daniel Rad, Dragoș Fotău and Sorin Zsido
9.	12 <sup>30</sup> – 12 <sup>45</sup>	<b>THE TEST METHOD USED TO DETERMINE SURFACE TEMPERATURE FOR EX EQUIPMENT CERTIFICATION</b> Authors: Dănuț Grecea, Marius Darie and Tiberiu Csaszar
10.	12 <sup>45</sup> – 13 <sup>00</sup>	<b>VISIBLE LIGHT COMMUNICATION AND AUGMENTED REALITY FOR UNDERGROUND POSITIONING SYSTEM</b> Authors: Simona Riurean, Marius Leonard Olar, Andreea Ionică and Lilla Pellegrini

13<sup>00</sup> – 14<sup>00</sup>

Lunch Break, **University Restaurant**

**Room 3: Faculty of Sciences Council Hall****Morning Session 3, 10<sup>30</sup> – 13<sup>00</sup>****Chairmen: Doru Costin DARABONT, Gabriel Bujor BĂBUȚ**

<b>1.</b>	<b>10<sup>30</sup> – 10<sup>45</sup></b>	<b>A BRIEF REVIEW OF THE RISK ASSESSMENT IN ROMANIA COMPARED TO FINLAND</b> Authors: Crina Maria Barb
<b>2.</b>	<b>10<sup>45</sup> – 11<sup>00</sup></b>	<b>A LOW COST SOLUTION TO MONITOR ENVIRONMENTAL PARAMETERS IN INDUSTRIAL AREA PERIMETERS</b> Authors: Nicolae Pătrășcoiu
<b>3.</b>	<b>11<sup>00</sup> – 11<sup>15</sup></b>	<b>ANALYSIS OF THERMAL DEGRADATION BEHAVIOR FOR SOME HYDRAULIC OILS, USING FTIR-TGA COUPLING</b> Authors: Niculina Sonia Șuvar, Maria Prodan, Irina Vasilica Nălboc and Andrei Szollosi-Moța
<b>4.</b>	<b>11<sup>15</sup> – 11<sup>30</sup></b>	<b>AUTOMATION OF PHYSICAL EXPERIMENTS REGARDING EXPLOSIONS OF AIR-METHANE MIXTURES</b> Authors: Adrian Bogdan Șimon-Marinică and Zoltan Vass
<b>5.</b>	<b>11<sup>30</sup> – 11<sup>45</sup></b>	<b>COMPARISON OF FOUR MAJOR INDUSTRIAL DISASTERS FROM THE PERSPECTIVE OF HUMAN ERROR FACTOR</b> Authors: Doru Costin Darabont, Daniel Onuț Badea and Alina Trifu
<b>6.</b>	<b>11<sup>45</sup> – 12<sup>00</sup></b>	<b>DEFINING PARAMETERS FOR NUMERICAL MODELLING OF FIRES</b> Authors: Zoltan Vass, Adrian Bogdan Șimon-Marinică and Sorina Stănilă
<b>7.</b>	<b>12<sup>00</sup> – 12<sup>15</sup></b>	<b>THE IMPACT OF NEW ASSISTIVE TECHNOLOGIES ON SPECIFIC OCCUPATIONAL RISKS FOR BLIND AND VISUAL IMPAIRED PEOPLES</b> Authors: Doru Costin Darabont, Paul Fogarassy, Daniel Onuț Badea and Alina Trifu
<b>8.</b>	<b>12<sup>15</sup> – 12<sup>30</sup></b>	<b>IGNITION SOURCE LOCALIZATION IN GASEOUS MIXTURES EXPLOSIONS EXPERTISE</b> Authors: Nicolae-Ioan Vlasin and Gheorghe Daniel Florea
<b>9.</b>	<b>12<sup>30</sup> – 12<sup>45</sup></b>	<b>UNDERSTANDING AND MANAGING WORKER'S EXPOSURE TO SPECIFIC RISKS</b> Authors: Gabriel Bujor Băbuț, Roland Iosif Moraru, Mihai Popescu-Stelea and Daniel Nicu Fraitag
<b>10.</b>	<b>12<sup>45</sup> – 13<sup>00</sup></b>	<b>OPTIMIZING THE COMPUTATIONAL SIMULATIONS OF AIR-FLAMMABLE GAS EXPLOSIONS USING HPC AND ANSYS SOFTWARE</b> Authors: Laurențiu Munteanu, Marius Cornel Șuvar and Ligia Ioana Tuhuț

**13<sup>00</sup> – 14<sup>00</sup>**Lunch Break, **University Restaurant**



## Room 4: Library Conference Hall

**Morning Session 4, 10<sup>30</sup> – 13<sup>00</sup>**

**Chairmen: Roland Iosif MORARU, Lucian Ionel CIOCA**

<b>1.</b>	<b>10<sup>30</sup> – 10<sup>45</sup></b>	<b>A DEBATE ON ISSUES REGARDING THE NEW ISO 45001:2018 STANDARD ADOPTION</b> Authors: Paula Nicoleta Neag, Larisa Ivaşcu and Anca Drăghici
<b>2.</b>	<b>10<sup>45</sup> – 11<sup>00</sup></b>	<b>ENSURING THE SAFETY AND HEALTH OF WORKERS PERFORMING WORK AT HEIGHTS IN THE INDUSTRIAL SECTORS</b> Authors: Anca Elena Antonov, Georgeta Buică and Constantin Beiu
<b>3.</b>	<b>11<sup>00</sup> – 11<sup>15</sup></b>	<b>OHS REPORTING IN ROMANIAN COMPANIES – AN OVERVIEW</b> Authors: Sorin Mihăilescu, Ana-Petrina Păun and Codruța Dura
<b>4.</b>	<b>11<sup>15</sup> – 11<sup>30</sup></b>	<b>ERGONOMIC INTERVENTION COMBINED WITH AN OCCUPATIONAL AND ORGANIZATIONAL PSYCHOLOGY AND SOCIOLOGY PERSPECTIVES IN PRODUCTION SYSTEMS</b> Authors: Paula Nicoleta Neag, Larisa Ivaşcu, Anca Mocan and Anca Drăghici
<b>5.</b>	<b>11<sup>30</sup> – 11<sup>45</sup></b>	<b>REGIONAL SOCIO-ECONOMIC ASPECTS IN THE FIELD OF COAL MINING</b> Authors: Sabina Irimie and Gloria Popescu
<b>6.</b>	<b>11<sup>45</sup> – 12<sup>00</sup></b>	<b>SAFETY CULTURE: A PERPETUAL CHALLENGE OR AN OPPORTUNITY FOR ROMANIAN COMPANIES?</b> Authors: Roland Iosif Moraru, Gabriel Bujor Băbuț, Lucian-Ionel Cioca, Mihai Popescu-Stelea and Victor-Gabriel Vasilescu
<b>7.</b>	<b>12<sup>00</sup> – 12<sup>15</sup></b>	<b>ENSURING THE SAFETY OF WORKERS IN UNDERGROUND ELECTRICAL INSTALLATIONS - PROFESSIONAL RISK ASSESSMENT</b> Authors: Georgeta Buică, Anca Elena Antonov, Constantin Beiu, Dragoş Păsculescu and Remus Dobra
<b>8.</b>	<b>12<sup>15</sup> – 12<sup>30</sup></b>	<b>THE SUBJECTS OF THE OFFENSES TO THE NORMS ON SAFETY AND HEALTH AT WORK AND THE SOCIAL AND ORGANIZATIONAL EFFCETS SPCIFIC TO COMPANIES CONDUCTING MINING ACTIVITIES</b> Authors: Ioan Popescu, Nicoleta-Monica Lohan, Constantin Baciu, Alin-Marian Cazac and Elena-Raluca Baciu
<b>9.</b>	<b>12<sup>30</sup> – 12<sup>45</sup></b>	<b>USING THE EVENT TREE ANALYSIS IN THE INVESTIGATION OF A WORK ACCIDENT</b> Authors: Radu Emil Mares, Mariana Nagy and Ioan Radu
<b>10.</b>	<b>12<sup>45</sup> – 13<sup>00</sup></b>	<b>WHY DO THE PSYCHO-SOCIAL CONDITIONS IN THE FIELD OF MINING REQUIRE CHANGES TO HEALTH AND SAFETY LEGISLATION?</b> Authors: Andrei-George Albuлесcu, Costică Bejinariu, Ioan Popescu, Constantin Baciu and Mihai-Adrian Bernevig-Sava

**13<sup>00</sup> – 14<sup>00</sup>**

Lunch Break, **University Restaurant**

## Room 5: A4 Amphitheatre

**Morning Session 5, 10<sup>30</sup> – 13<sup>00</sup>**

**Chairmen: Zbigniew LUBOSIK, Doru CIOCLEA**

<b>1.</b>	<b>10<sup>30</sup> – 10<sup>45</sup></b>	<b>RISK SCENARIOS OF METHANE EMISSION FROM GOAFS AFTER THE MINE CLOSURE PROCESS</b> Authors: Adam Duda and Alicja Krzemień
<b>2.</b>	<b>10<sup>45</sup> – 11<sup>00</sup></b>	<b>THE EMERGENCE OF INDUSTRIAL TOURISM IN POST-MINING CLOSURE AREAS – PROJECT MANAGEMENT MODELS AND LOCAL PRACTICES</b> Authors: Ionela Samuil, Ibrian Cărmădaru and Andreea Ionică
<b>3.</b>	<b>11<sup>00</sup> – 11<sup>15</sup></b>	<b>MULTIFUNCTIONAL PLATFORM OPI-TTP FOR POSTMINING AREAS MANAGEMENT - SUPPORTIVE TOOL FOR ENVIRONMENTAL IMPACT ASSESSMENT IN THE SILESIA VOIVODESHIP</b> Authors: Jan Bondaruk, Adam Hamerla and Karolina Jąderko-Skubis
<b>4.</b>	<b>11<sup>15</sup> – 11<sup>30</sup></b>	<b>EXPERIMENTATION OF A BANDED TANDEM VENTILATION SYSTEM WITH BALANCED STRUCTURE</b> Authors: Doru Cioclea, Ion Gherghe, Emeric Chiuzan, Adrian Matei and Răzvan Drăgoescu
<b>5.</b>	<b>11<sup>30</sup> – 11<sup>45</sup></b>	<b>THE ROLE OF POWERED SUPPORT IN ENSURING THE PROPER LONGWALL WORKING CROSS-SECTION AREA IN ROCKBURST-PRONE SEAMS</b> Authors: Zbigniew Lubosik, Sylwester Rajwa, Andrzej Walentek, Wojciech Masny and Aleksander Wrana
<b>6.</b>	<b>11<sup>45</sup> – 12<sup>00</sup></b>	<b>CRITERIA FOR DESIGNING LONGWALL VENTILATION IN METHANE SEAMS THREATENED BY SPONTANEOUS FIRE</b> Authors: Eugeniusz Krause and Zbigniew Lubosik
<b>7.</b>	<b>12<sup>00</sup> – 12<sup>15</sup></b>	<b>RESEARCH ON THE USE OF MODELLING AND COMPUTER SIMULATION FOR METAL MINING STRUCTURES IN ORDER TO INCREASE QUALITY AND SAFETY</b> Authors: Daniel Cosmin Vitan, Marin Silviu Nan, Iosif Dumitrescu, Aurelian Nicola and Dorel Vitan
<b>8.</b>	<b>12<sup>15</sup> – 12<sup>30</sup></b>	<b>SAFETY, HEALTH AND HAZARDS RELATED TO USING OF SPRAYED CONCRETE IN UNDERGROUND MINING WORKS</b> Authors: Mihaela Toderaş and Ciprian Danciu
<b>9.</b>	<b>12<sup>30</sup> – 12<sup>45</sup></b>	<b>INFLUENCE OF THE FLOODING SPEED OF FORMER LIGNITE OPEN PITS ON THE STABILITY OF FINAL SLOPES</b> Authors: Maria Lazăr, Florin Faur and Izabela Maria Apostu
<b>10.</b>	<b>12<sup>45</sup> – 13<sup>00</sup></b>	<b>ANALYSIS OF LIQUEFACTION RISK OF STERILE MATERIAL IN THE INNER DUMP OF NORTH PESTEANA QUARRY IN THE CONDITIONS OF FLOODING OF THE REMAINING GAP</b> Authors: Izabela Maria Apostu, Maria Lazăr and Florin Faur

**13<sup>00</sup> – 14<sup>00</sup>**

Lunch Break, **University Restaurant**

# Afternoon Parallel Sessions

<b>Room 1: Geology Laboratory</b>		
<b>Afternoon Session 1, 14<sup>00</sup> – 16<sup>30</sup></b>		
<b>Chairmen: Codruț PETRILEAN, Lucian MOLDOVAN</b>		
<b>1.</b>	<b>14<sup>00</sup> – 14<sup>15</sup></b>	<b>COATINGS &amp; LININGS FOR OIL &amp; GAS PIPELINES – THE MOST EFFECTIVE METHOD OF CORROSION PROTECTION FOR AGED PIPELINES</b> Authors: Ion Antonio Tache and Carmen Tache
<b>2.</b>	<b>14<sup>15</sup> – 14<sup>30</sup></b>	<b>EXPLORING THE POSSIBILITIES TO INCREASE THE AUTONOMY OF AN ELECTRIC VEHICLE</b> Authors: Razvan Marcus, Olimpiu Stoicuța, Cosmin Rus and Bogdan Tomuş
<b>3.</b>	<b>14<sup>30</sup> – 14<sup>45</sup></b>	<b>INFLUENCE OF TRANSPORT ACTIVITY ON ENVIRONMENTAL FACTORS IN PETROȘANI BASIN</b> Authors: Sorin Mihăilescu and Gabriel Praporgescu
<b>4.</b>	<b>14<sup>45</sup> – 15<sup>00</sup></b>	<b>LOCATING THE PROBABLE IGNITION SOURCE IN FIRE EXPERTISE</b> Authors: Gheorghe Daniel Florea and Nicolae-Ioan Vlasin
<b>5.</b>	<b>15<sup>00</sup> – 15<sup>15</sup></b>	<b>MANAGEMENT OF REVEGETATION OF THE SLAG AND ASH DEPOSITS OF THE PAROSANI THERMOELECTRIC POWER PLANT</b> Authors: Andreea Cristina Tătaru, Aurora Stanci, Dorin Tătaru and Sorin Mihai Radu
<b>6.</b>	<b>15<sup>15</sup> – 15<sup>30</sup></b>	<b>PARAMETERS ANALYSIS FOR A SUSTAINABLE MANAGEMENT OF MUNICIPAL SOLID WASTE IN UNIVERSITY BUILDINGS</b> Authors: Marco Ragazzi, Elena Cristina Rada, Alessandro Abbà and Marco Schiavon
<b>7.</b>	<b>15<sup>30</sup> – 15<sup>45</sup></b>	<b>SOME CONSIDERATIONS ON CIRCULAR ECONOMY, MUNICIPAL SOLID WASTE AND OCCUPATIONAL RISK</b> Authors: Elena Cristina Rada, Irene Cestari and Elena Romenovna Magaril
<b>8.</b>	<b>15<sup>45</sup> – 16<sup>00</sup></b>	<b>SOURCES OF POLLUTANTS AND ENVIRONMENTAL FACTORS PROTECTION IN THE MEAT PROCESSING INDUSTRY</b> Authors: Ovidiu Tita, Adelina Maria Constantinescu and Mihaela Adriana Tita
<b>9.</b>	<b>16<sup>00</sup> – 16<sup>15</sup></b>	<b>STUDY OF THE POSSIBILITY OF IMPLEMENTATION IN FINLAND OF THE PASSIVHAUS CONCEPT IN ORDER TO REDUCE ENERGY CONSUMPTION</b> Authors: Andreea Cristina Tătaru and Aurora Stanci
<b>10.</b>	<b>16<sup>15</sup> – 16<sup>30</sup></b>	<b>WATER REUSE AS A SECURE PATHWAY TO DEAL WITH WATER SCARCITY</b> Authors: Vincenzo Torretta, Ioannis Katsoyiannis, Maria Cristina Collivignarelli, Giorgio Bertanza and Maria Xanthopoulou
<b>16<sup>30</sup> – 19<sup>00</sup></b>		<b>Free Time</b>
<b>19<sup>00</sup> – 00<sup>00</sup></b>		<b>Gala Dinner, Rusu Hotel Grand Ballroom</b>

## **Room 2: A3 Amphitheatre**

**Afternoon Session 2, 14<sup>00</sup> – 16<sup>15</sup>**

**Chairmen: Ilie UȚU, Vlad Mihai PĂSCULESCU**

<b>1.</b>	<b>14<sup>00</sup> – 14<sup>15</sup></b>	<b>CONSIDERATIONS REGARDING THE SPECIFIC TESTS APPLICABLE TO ELECTRIC MOTORS WITH TYPE OF PROTECTION FLAMEPROOF ENCLOSURE „d” AND TYPE OF PROTECTION INCREASED SAFETY</b> Authors: Dragoș Fotău, Marcel Daniel Rad and Diana Sălășan
<b>2.</b>	<b>14<sup>15</sup> – 14<sup>30</sup></b>	<b>DESIGNING AND USING ROBOTS FOR PERFORMING INSPECTIONS IN POTENTIALLY EXPLOSIVE ATMOSPHERES</b> Authors: Cosmin Ioan Colda and Sorin Burian
<b>3.</b>	<b>14<sup>30</sup> – 14<sup>45</sup></b>	<b>ASPECTS REGARDING THE APPLICABILITY OF ATEX DIRECTIVES FOR THE EVALUATION OF PRODUCTS REGARDING THE RISK OF EXPLOSION</b> Authors: Mihaela Părăian, Sorin Burian, Niculina Vătavu and Florin Adrian Păun
<b>4.</b>	<b>14<sup>45</sup> – 15<sup>00</sup></b>	<b>EXAMPLES OF CHANGES IN ROMANIA POWER SYSTEMS TOWARDS THE ACHIEVEMENT OF THE MODERN OBJECTIVE OF THE UE</b> Authors: Maria Daniela Stochițoiu and Ilie Uțu
<b>5.</b>	<b>15<sup>00</sup> – 15<sup>15</sup></b>	<b>PARTICULARITIES REGARDING THE EVALUATION OF LARGE EQUIPMENT FOR EXPLOSIVE ATMOSPHERES</b> Authors: Gabriela Pupăzan, Tiberiu Csaszar and Adriana Andriș
<b>6.</b>	<b>15<sup>15</sup> – 15<sup>30</sup></b>	<b>THRESHOLD ALARM TESTS OF ELECTRICAL DEVICES FOR THE DETECTION OF COMBUSTIBLE GASES IN DOMESTIC PREMISES</b> Authors: Marius Darie, Dănuț Grecea and Cosmin Ioan Colda
<b>7.</b>	<b>15<sup>30</sup> – 15<sup>45</sup></b>	<b>IMPROVEMENT OF THE PROCEDURE OF NEW FILTER MASKS DEVELOPMENT</b> Authors: Olha Nesterova, Serhiy Cheberyachko, Yuriy Cheberyachko, Dmytro Radchuk and Oleg Deriuhin
<b>8.</b>	<b>15<sup>45</sup> – 16<sup>00</sup></b>	<b>MODELLING THE OCCUPATIONAL EXPOSURE OF WORKERS TO CERTAIN HAZARDOUS CHEMICALS</b> Authors: Vlad Mihai Păsculescu, Emilian Ghicioi, Dragoș Păsculescu and Mircea Suci
<b>9.</b>	<b>16<sup>00</sup> – 16<sup>15</sup></b>	<b>THE USE OF NUMERICAL MODELS AS A MODERN TOOL IN FIRE INVESTIGATION</b> Authors: Marius Cornel Șuvar, Laurențiu Munteanu and Aurelian Nicola
<b>16<sup>15</sup> – 19<sup>00</sup></b>		<b>Free Time</b>

**19<sup>00</sup> – 00<sup>00</sup>**

Gala Dinner, **Rusu Hotel Grand Ballroom**

## Room 3: Faculty of Sciences Council Hall

Afternoon Session 3, 14<sup>00</sup> – 16<sup>15</sup>

Chairmen: Costică BEJINARIU, Maria LAZĂR

1.	14 <sup>00</sup> – 14 <sup>15</sup>	<b>TECHNOLOGICAL AND ORGANIZATIONAL OPERATIONALIZATION OF THE PROGRAM TESTING THE OPERATION OF PYROTECHNIC ENTERTAINMENT ARTICLES OF CATEGORY 4, SUCH AS: AERIAL BOMBS AND ROMAN CANDLES</b> Authors: Cristian Raul Cioară, Marius Simion Morar, Andrada Denisa Băbuț and Olga Miclea
2.	14 <sup>15</sup> – 14 <sup>30</sup>	<b>ASSESSING THE IMPACT SENSITIVITY OF EXPLOSIVES USING THE BHF-12A EQUIPMENT</b> Authors: Cristian Rădeanu, Daniela Carmen Rus, Ilie Ciprian Jitea, Claudia Miron and Gabriel Dragoș Vasilescu
3.	14 <sup>30</sup> – 14 <sup>45</sup>	<b>COMPUTATIONAL SIMULATION OF SAFETY PARAMETERS CONCERNING FRICTION AND IMPACT SENSITIVITY OF TESTED CIVIL USE EXPLOSIVES</b> Authors: Ilie Ciprian Jitea, Robert Laszlo, Daniela Carmen Rus, Ștefan Ilici and Olga Miclea
4.	14 <sup>45</sup> – 15 <sup>00</sup>	<b>COMPUTATIONAL SIMULATION OF SHOCK WAVE GENERATED BY THE DETONATION OF EXPLOSIVES FOR CIVIL USE</b> Authors: Ligia Ioana Tuhuț and Emilian Ghicioi
5.	15 <sup>00</sup> – 15 <sup>15</sup>	<b>CONFORMITY ASSESSMENT OF ANTI-HAIL ROCKET RAG-96.00 WITH SECURITY REQUIREMENTS</b> Authors: Edward Gheorghiosu, Sorin Bordoș, Vasile Enache and Dănuț Ion
6.	15 <sup>15</sup> – 15 <sup>30</sup>	<b>NUMERICAL SIMULATION FOR DETERMINING DETONATION PARAMETERS OF EXPLOSIVE SUBSTANCES USING EXPLOS THERMO-CHEMICAL PREDICTION SOFTWARE</b> Authors: Gabriel Dragoș Vasilescu, Attila Kovacs, Edward Gheorghiosu, Bogdan Garaliu-Bușoi and Gabriel Ioan Ilcea
7.	15 <sup>30</sup> – 15 <sup>45</sup>	<b>TECHNICAL AND SAFETY ASPECTS AT THE DEMOLITION BY BLASTING WORKS OF A COOLING TOWER WITH A HIGH OF 72.00 M</b> Authors: Robert Laszlo, Cristian Rădeanu, Ștefan Ilici, Mircea Grecea and Miklos Levente
8.	15 <sup>45</sup> – 16 <sup>00</sup>	<b>THE ANALYSIS OF HEALTH AND SAFETY DEFICIENCIES AT WORK AS WELL AS ORGANIZATION, TO THE SURFACE MINING OPERATIONS, OF USEFUL ROCKS WHICH CAN CAUSE ACCIDENTS AND/OR TECHNOLOGICAL FAILURES</b> Authors: Attila Kovacs, Sorin Bordoș, Bogdan Garaliu-Bușoi, Claudia Miron and Sorina Stănilă
9.	16 <sup>00</sup> – 16 <sup>15</sup>	<b>THE GENERALIZED RISK SCALE – A SCALAR INTEGRATED TOOL FOR DEVELOPING RISK CRITERIA BY CONSENSUS, IN THE FIELD OF EXPLOSIVES FOR CIVIL USES</b> Authors: Camelia Lavinia Unguraș, Doru Anghelache, Victor-Gabriel Vasilescu, Florian Stoian and Gabriel Ioan Ilcea
16 <sup>15</sup> – 19 <sup>00</sup>		Free Time
19 <sup>00</sup> – 00 <sup>00</sup>		Gala Dinner, Rusu Hotel Grand Ballroom

## Room 4: Library Conference Hall

**Afternoon Session 4, 14<sup>00</sup> – 16<sup>15</sup>**

**Chairmen: Mihai MAGYARI, Sabina IRIMIE**

<b>1.</b>	<b>14<sup>00</sup> – 14<sup>15</sup></b>	<b>ACCIDENT SITES MANAGEMENT USING DRONES</b> Authors: Oliviu Mihnea Gamulescu, Sebastian Daniel Rosca, Fabian Panaite, Alin Costandoiu and Simona Riurean
<b>2.</b>	<b>14<sup>15</sup> – 14<sup>30</sup></b>	<b>ARTIFICIAL ARM FOR MANIPULATIONS IN TOXIC ATMOSPHERES BASED ON EEG-EMG SIGNALS</b> Authors: Sebastian Rosca, Marius Risteiu, Monica Leba, Nicoleta Negru and Mihai Ridzi
<b>3.</b>	<b>14<sup>30</sup> – 14<sup>45</sup></b>	<b>BEST PRACTICES TO IMPROVE CONSTRUCTION SITE SAFETY, IN THE SPECIFIC CONDITION OF PROCESSING PLANT BUILDING</b> Authors: Blagovesta Vladkova
<b>4.</b>	<b>14<sup>45</sup> – 15<sup>00</sup></b>	<b>CONTROLLING A ROBOTIC ARM WITH AUGMENTED REALITY</b> Authors: Leonard Marius Olar, Marius Risteiu, Fabian Panaite, Mihai Rebrisoreanu and Oliviu Musetoiu
<b>5.</b>	<b>15<sup>00</sup> – 15<sup>15</sup></b>	<b>OPTIMIZING THE TECHNICAL VERIFICATION PROCESS OF CYLINDERS</b> Authors: Cosmin Ilie, George Artur Găman, Daniel Pupăzan, Cristian Nicolescu and Andrei-Lucian Gireadă
<b>6.</b>	<b>15<sup>15</sup> – 15<sup>30</sup></b>	<b>PECULIARITIES OF A MOBILE WORKOUT TRAINING FACILITY FOR RESCUER'S PRACTICAL TRAINING</b> Authors: Cristian Nicolescu, George Artur Găman, Daniel Pupăzan, Cosmin Ilie and Izabella Kovacs
<b>7.</b>	<b>15<sup>30</sup> – 15<sup>45</sup></b>	<b>WIRELESS DEVICE FOR THE DETECTION OF EXPLOSIONS AND ACTIVATION OF A SHOCK WAVE ABSORBER</b> Authors: Davit Khomeriki, Nikoloz Chikhradze, Edgar Mataradze, Mikheil Chikhradze, Karlo Tavlalashvili and Shalva Marjanishvili
<b>8.</b>	<b>15<sup>45</sup> – 16<sup>00</sup></b>	<b>PILOT STUDY ON FIELDS WITH HIGH EXPOSURE TO PSYCHOSOCIAL RISK FACTORS</b> Authors: Raluca Maria Iordache, Viorica Petreanu and Delia Cristina Mihăilă
<b>9.</b>	<b>16<sup>00</sup> – 16<sup>15</sup></b>	<b>A STUDY ON THE MECHANICAL PERFORMANCE OF BURIED HDPE (HIGH-DENSITY POLYETHYLENE) PIPELINES UNDER SUBSURFACE DETONATION</b> Authors: Ladislau Radermacher
<b>16<sup>15</sup> – 19<sup>00</sup></b>		<b>Free Time</b>

<b>19<sup>00</sup> – 00<sup>00</sup></b>	Gala Dinner, <b>Rusu Hotel Grand Ballroom</b>
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## Room 5: A4 Amphitheatre

**Afternoon Session 5, 14<sup>00</sup> – 16<sup>15</sup>**

**Chairmen: Omar LANCHAVA, Mihaela TODERAŞ**

<b>1.</b>	<b>14<sup>00</sup> – 14<sup>15</sup></b>	<b>CRITICAL VELOCITY ANALYSIS FOR SAFETY MANAGEMENT IN CASE OF TUNNEL FIRE</b> Authors: Omar Lanchava and Nicolae Iliaş
<b>2.</b>	<b>14<sup>15</sup> – 14<sup>30</sup></b>	<b>ENVIRONMENTAL IMPACT OF METHANE RELEASED FROM COAL MINES</b> Authors: Nicolae Ianc, Corneliu Boantă, Ion Gherghe and Cristian Tomescu
<b>3.</b>	<b>14<sup>30</sup> – 14<sup>45</sup></b>	<b>INCREASING THE OCCUPATIONAL HEALTH AND SAFETY LEVEL BY USING SPECIALIZED SOFTWARE</b> Authors: Marius Simion Morar, Vlad Mihai Păsculescu, Cristian Raul Cioară and Andrada Denisa Băbuţ
<b>4.</b>	<b>14<sup>45</sup> – 15<sup>00</sup></b>	<b>NUMERICAL SIMULATION OF AIR FLOW IN SHORT METRO VENTILATION SHAFTS CAUSED BY A PISTON EFFECT</b> Authors: Nicolae Iliash, Omar Lanchava and Giorgi Nozadze
<b>5.</b>	<b>15<sup>00</sup> – 15<sup>15</sup></b>	<b>THE PROCESS OF CLOSING DYNAMICS APPLIED TO THE VENTILATION NETWORK OF PAROŞENI MINE</b> Authors: Florin Rădoi, Doru Cioclea, Corneliu Boantă and Cristian Tomescu
<b>6.</b>	<b>15<sup>15</sup> – 15<sup>30</sup></b>	<b>USE OF EXPLOSIBILITY DIAGRAMS IN POTENTIALLY EXPLOSIVE ATMOSPHERES</b> Authors: Adrian Matei, Răzvan Drăgoescu, Nicolae Ianc, Emeric Chiuzan and Florin Rădoi
<b>7.</b>	<b>15<sup>30</sup> – 15<sup>45</sup></b>	<b>MEASURING THE CHANGE OF AIR TEMPERATURE WITH 8 LM75A SENSORS IN MINING AREA</b> Authors: Alexandra Stanimirescu, Angela Egri, Florin Flavius Şoica and Sorin Mihai Radu
<b>8.</b>	<b>15<sup>45</sup> – 16<sup>00</sup></b>	<b>IMPACT OF DEMOLITION WORK ON THE ENVIRONMENT, GENERATED BY MINE CLOSURES IN JIU VALLEY</b> Authors: Vlad Alexandru Lăutaru, Marius Kovacs, Andrei-Lucian Gireadă and Alin Irimia
<b>9.</b>	<b>16<sup>00</sup> – 16<sup>15</sup></b>	<b>LOWERING THE LEVEL OF OCCUPATIONAL EXPOSURE TO NOISE IN AREAS NEIGHBOURING COMPRESSOR HALLS</b> Authors: Sorin Simion, Alexandru Florin Simion, Izabella Kovacs and Vlad Alexandru Lăutaru
<b>16<sup>15</sup> – 19<sup>00</sup></b>		<b>Free Time</b>

**19<sup>00</sup> – 00<sup>00</sup>**

Gala Dinner, **Rusu Hotel Grand Ballroom**

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