



ROMANIAN ACADEMY OF TECHNICAL SCIENCES

THE GENERAL ASSOCIATION OF THE ENGINEERS IN ROMANIA

“CONSTANTIN BRÂNCUȘI” UNIVERSITY OF TÂRGU-JIU

FACULTY OF ENGINEERING

PROGRAM

NATIONAL SCIENTIFIC CONFERENCE

WITH INTERNATIONAL PARTICIPATION

“CONFERENG 2022”

November 25th - 26th 2022

TÂRGU-JIU

ROMANIA

HONORARY COMMITTEE

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Professor PhD Valentin NĂVRĂPESCU, University of Bucharest, Romania, Vice-president of the Romanian Agency for Quality Assurance in Higher Education

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Assoc. prof. PhD Bogdan DIACONU, "Constantin Brâncuși" University of Târgu-Jiu

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Assoc. prof. PhD Mihaela MOLNAR, Babeș-Bolyai University of Cluj-Napoca

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Assoc. prof. PhD Mircea RISTEIU, "1 Decembrie 1918" University of Alba Iulia
Assoc. prof. PhD Viorica Mariela UNGUREANU, "Constantin Brâncuși" University of Târgu-Jiu
Lecturer PhD Lenuta CÎNDEA, Babeș-Bolyai University of Cluj-Napoca
Lecturer PhD Cornel HAȚIEGAN, Babeș-Bolyai University of Cluj-Napoca
Lecturer PhD Alin NIOAȚĂ, "Constantin Brâncuși" University of Târgu-Jiu
Lecturer PhD Zeno-Iosif PRAISACH, Babeș-Bolyai University of Cluj-Napoca
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Lecturer PhD Mihaela Dorica STROIA, Babeș-Bolyai University of Cluj-Napoca
Lecturer PhD Cristian TUFÎȘI, Babeș-Bolyai University of Cluj-Napoca

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Assoc. prof. PhD Florin GROFU
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Lecturer PhD Adriana TUDORACHE
Lecturer PhD Gheorghe GÎLCĂ
Lecturer PhD Maria Nicoleta MIHUȚ
Lecturer PhD Alin NIOAȚĂ
Lecturer PhD Irina Ramona PECINGINĂ
Lecturer PhD Alin STĂNCIOIU
Lecturer PhD Emil Cătălin ȘCHIOPU

CONFERENCE SCHEDULE

Friday, November 25th, 2022

800 - 1000 - Registration

1000 - 1030 - Opening ceremony (Conference room: A016 Engineering Faculty UCB)

1030 -1045 - Coffee break

1045 - 1430 - Conference sessions (works presentations by sections)

1500 - 1630 - Lunch

1700 - 2000 - Conference sessions (works presentations by sections)

THE SECTIONS OF THE CONFERENCE

1. Control system, electronics, information technology and cyber security
2. Environmental engineering and sustainable development
3. Engineering and management in public alimentation and agrotourism
4. Energy and Power engineering
5. Mechanical engineering, materials and manufacturing systems
6. Quality management

Saturday, November 26th, 2022

09.00 - 10.00: Visit in research laboratories of the faculty

11.00 - 18.00: Program for visiting the touristic objectives and sites in Târgu-Jiu

Section 1

Control system, electronics, information technology and cyber security

Conference room: A015

Date 25. 11. 2022

Hours : 10⁴⁵ – 14⁰⁰

Chairman: Assoc. prof. PhD. Florin Grofu, “Constantin Brâncuși” University from Târgu- Jiu

Technical secretariat: Lecturer PhD. Gheorghe Gîlca, “Constantin Brâncuși” University from Târgu Jiu

1. THE COMPARATIVE STUDY BY SIMULATION AND EXPERIMENT OF AN ELECTRIC CIRCUIT

Mihaela Molnar, Babes-Bolyai University, Cluj Napoca, ROMANIA

Cornel Hațiegan, Babes-Bolyai University, Cluj Napoca, ROMANIA

Eugen Răduca, Babes-Bolyai University, Cluj Napoca, ROMANIA

Anton Paul Gruia, IJP, Reșița, ROMANIA

2. STUDY OF AN AUTOMATIC SYSTEM FOR ADJUSTING THE SPEED OF A DIRECT CURRENT MOTOR

Mihaela Molnar, Babes-Bolyai University, Cluj Napoca, ROMANIA

Eugen Răduca, Babes-Bolyai University, Cluj Napoca, ROMANIA

Cristinel Popescu, “Constantin Brâncuși” University, Târgu-Jiu, ROMANIA

Gigi Atinge, Colegiul Tehnic, Reșița, ROMANIA

3. STUDY ON THE RECEPTION QUALITY IN RESITA OF THE RADIO RESITA STATION

Eugen Răduca, Babes-Bolyai University, Cluj Napoca, ROMANIA

Mihaela Molnar, Babes-Bolyai University, Cluj Napoca, ROMANIA

Cristinel Popescu, “Constantin Brâncuși” University, Târgu-Jiu, ROMANIA

Petru Ieremici, SN Radiocomunicatii Resita, ROMANIA

4. CONSTRUCTION MATERIALS OBTAINED BY RECYCLING ASH FROM COAL-FIRED POWER PLANTS ASH PONDS. ESTIMATION OF BASIC MECHANICAL PROPERTIES BY MEANS OF MACHINE LEARNING ALGORITHMS. PART I – DISCUSSION ON SUITABILITY OF SEVERAL MACHINE LEARNING ALGORITHMS FOR THE PROBLEM

Lucica Anghelescu, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Bogdan Diaconu, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Mihai Cruceru, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Tzvetelin K. Gueorguiev, University “Angel Kanchev” of Ruse, BULGARIA

5. CONSTRUCTION MATERIALS OBTAINED BY RECYCLING ASH FROM COAL-FIRED POWER PLANTS ASH PONDS. ESTIMATION OF BASIC MECHANICAL PROPERTIES BY MEANS OF MACHINE LEARNING ALGORITHMS. PART II – MACHINE LEARNING ALGORITHMS BENCHMARKING

Lucica Anghelescu, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Bogdan Diaconu, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Mihai Cruceru, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Tzvetelin K. Gueorguiev, University “Angel Kanchev” of Ruse, BULGARIA

6. TOWARDS A UNIFIED FRAMEWORK IN TREATING IMBALANCED DATASETS. APPLICATION TO THE PULSAR CANDIDATE SELECTION PROBLEM BASED ON THE HTRU2 DATASET. PART I – PULSAR CANDIDATE SELECTION PROBLEM

Bogdan Diaconu, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Lucica Anghelescu, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Mihai Cruceru, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Marius-Eremia Vlaicu Popa, Complexul Energetic Oltenia, ROMANIA

7. TOWARDS A UNIFIED FRAMEWORK IN TREATING IMBALANCED DATASETS. APPLICATION TO THE PULSAR CANDIDATE SELECTION PROBLEM BASED ON THE HTRU2 DATASET. PART II: OVERSAMPLING VERSUS UNDERSAMPLING - A CRITICAL COMPARISON

Bogdan Diaconu, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Lucica Anghelescu, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Mihai Cruceru, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA
Marius-Eremia Vlaicu Popa, Complexul Energetic Oltenia, ROMANIA

8. DEVELOPMENT OF A MOBILE APPLICATION MONITORING OF SOUND POLLUTION

Florin Ciofu, Engineering Faculty, “Lucian Blaga” University of Sibiu, ROMANIA

9. SOUND POLLUTION MONITORING USING MOBILE APPLICATIONS

Florin Ciofu, Engineering Faculty, “Lucian Blaga” University of Sibiu, ROMANIA

10. BATTERY CAPACITY TEST SYSTEM

Florin Grofu, „Constantin Brâncuși University from Târgu-Jiu, ROMANIA
Gheorghe Gîlcă, Constantin Brâncuși University from Târgu-Jiu, ROMANIA
Alina-Elena Lupulescu, University of Petroșani, Petroșani, ROMANIA

11. STEPS TO DEVELOP A SAAS APPLICATION

Ilie Borcoși, Constantin Brâncuși University of Târgu-Jiu, ROMANIA
Adrian Runceanu, Constantin Brâncuși University of Târgu-Jiu, ROMANIA
Corina Ana Borcoși, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

12. CUSTOMIZE SAAS APPLICATIONS THROUGH MICROSERVICES

Ilie Borcoși, Constantin Brâncuși University of Târgu-Jiu, ROMANIA
Corina Ana Borcoși, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

Conference room: A015

Date 25. 11. 2022

Hours : 17⁰⁰ - 19³⁰

Chairman: Assoc. prof. PhD. Mădălina Buneci, “Constantin Brâncuși” University from Târgu- Jiu

Technical secretariat: Lecturer PhD. Marian Ionescu, “Constantin Brâncuși” University from Târgu Jiu

13. MODELING OF A ROAD TRAFFIC FLUIDIZATION SYSTEM IN AN INTERSECTION USING FUZZY REGULATOR

Gheorghe Gîlcă, “Constantin Brâncuși” University from Târgu-Jiu, ROMANIA
Florin Grofu, “Constantin Brâncuși” University from Târgu-Jiu, ROMANIA
Alina-Elena Lupulescu (Machidon), University of Petroșani, Petroșani, ROMANIA

14. PARALLEL ROBOTS - THE GOUGH-STEWART PLATFORM

Alina-Elena Lupulescu (Machidon), University of Petroșani, Petroșani, ROMANIA
Florin Grofu, „Constantin Brâncuși” University from Târgu-Jiu, ROMANIA
Gheorghe Gîlcă, „Constantin Brâncuși” University from Târgu-Jiu, ROMANIA

15. AUTOMATION IN WATER TREATMENT PLANTS USING ARTIFICIAL INTELLIGENCE

Lenuța Costache (Bira), Politehnica University of Bucharest

16. STOCHASTIC OBSERVABILITY OF DISCRETE-TIME SYSTEMS WITH MARKOVIAN JUMPS AND STATE DELAY

Viorica Mariela Ungureanu, “Constantin Brâncuși” University from Târgu-Jiu, ROMANIA

17. CONTROLLABILITY OF DISCRETE-TIME SYSTEMS WITH INPUT AFFECTED BY BOTH STOCHASTIC PERTURBATIONS AND DELAY

Viorica Mariela Ungureanu, “Constantin Brâncuși” University from Târgu-Jiu, ROMANIA

18. GENERALIZED ACTIONS – A NEW WAY TO THINK OF GROUPOID MORPHISMS

Mădălina-Roxana Buneci, “Constantin Brâncuși” University from Târgu-Jiu, ROMANIA

19. THE COLLABORATIVE INTERACTION WITH TWO ROBOTIC STRUCTURES

Marian Ionescu, "Constantin Brâncuși" University from Târgu-Jiu, ROMANIA

20. ALGORITHMS IMPLEMENTING OPERATIONS WITH BIG NUMBERS

Adrian Runceanu, Constantin Brâncuși University, Târgu-Jiu, ROMANIA

Mihaela Runceanu, Ecaterina Teodoroiu High College, Târgu-Jiu, ROMANIA

Section 2

Environmental engineering and sustainable development

Conference room: A014

Date 25. 11. 2022

Hours : 10⁴⁵ - 14⁰⁰

Chairman: Prof. PhD. Cristinel Racoceanu, “Constantin Brâncuși” University from Târgu-Jiu

Technical secretariat: Lecturer PhD. Lucica Anghelescu, “Constantin Brâncuși” University from Târgu-Jiu

1. THE USE OF WASTE FROM ENERGY INDUSTRY OF GORJ COUNTY, AN EXAMPLE OF GOOD PRACTICE IN APPLYING OF THE CIRCULAR ECONOMY

Luminita Georgeta Popescu, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

2. STUDY OF THE RADIOACTIVE POLLUTION OF THE STERILE DUMPS OF THE LUPENI MINING

Aurora Stanci, University of Petrosani, Petrosani, ROMANIA

3. MONITORING THE LEVEL OF RADIOACTIVITY PRESENT IN THE AIR IN AREA OF VULCAN MUNICIPALITY

Aurora Stanci, University of Petrosani, Petrosani, ROMANIA

4. MONITORING THE LEVEL OF AIR POLLUTION WITH SUSPENDED PARTICLES IN THE AREA AROUND THE LUPENI MINING EXPLOITATION

Andreea Cristina Tataru, University of Petrosani, Petrosani, ROMANIA

5. IMPLEMENTATION STUDY OF THE CONCEPT OF PASSIV HAUS IN CANADA

Andreea Cristina Tataru, University of Petrosani, Petrosani, ROMANIA

6. USE OF CURVED PANELS FOR THE NOISE REDUCTION PRODUCED BY BANDCONVEYORS FROM OLTENIA ENERGY COMPLEX

Dorin Tataru, University of Petrosani, Petrosani, ROMANIA

7. SELECTION OF THE SOUNDPROOFING METHODS OF THE BANDCONVEYOR USED IN OPEN-PIT MINING DEPENDING ON COSTS AND LOCATION

Dorin Tataru, University of Petrosani, Petrosani, ROMANIA

8. CO₂ CAPTURE METHODS IN FOSSIL FUEL POWER PLANTS

Mihai Cruceru, University Constantin Brâncuși of Târgu-Jiu, ROMANIA
Bogdan Diaconu, University Constantin Brâncuși of Târgu-Jiu, ROMANIA
Lucica Anghelescu, University Constantin Brâncuși of Târgu-Jiu, ROMANIA
Georgi Velev, Technical University of Gabrovo, BULGARIA

9. CO₂ CAPTURE TECHNOLOGIES. A LITERATURE SURVEY

Mihai Cruceru, University Constantin Brâncuși of Târgu-Jiu, ROMANIA
Bogdan Diaconu, University Constantin Brâncuși of Târgu-Jiu, ROMANIA
Lucica Anghelescu, University Constantin Brâncuși of Târgu-Jiu, ROMANIA

10. THE ROLE OF FOSSIL FUELS IN THE CURRENT ENERGY CRISIS

Cristinel Racoceanu, "Constantin Brâncuși" University of Târgu-Jiu, ROMANIA

11. STUDY ON BENSON STEAM GENERATOR WET FLUE GAS DESULPHURIZATION

Cristinel Racoceanu, "Constantin Brâncuși" University of Târgu-Jiu, ROMANIA

12. RECOVERY OF MINERAL WASTE THROUGH THE MANUFACTURE OF CONSTRUCTION MATERIALS AND LIGHTWEIGHT CONCRETE

Sabin Cristinel Dimulescu, Lucian Blaga University of Sibiu, Sibiu, ROMANIA
Mihaela Wetternek, Colegiul Tehnic Reșița, ROMANIA

Conference room: A014

Date 25. 11. 2022

Hours : 17 - 1830

Chairman: Prof. PhD. Cristinel Racoceanu, "Constantin Brâncuși" University from Târgu- Jiu

Technical secretariat: Lecturer PhD. Emil Șchiopu, "Constantin Brâncuși" University from Târgu- Jiu

13. THE POTENTIALLY TOXIC EMISSIONS FROM THERMAL TURCENI HEAVY METAL POLLUTION ON SOIL

Delia Nica-Badea, Constantin Brâncuși University Târgu-Jiu, ROMANIA
Aniela Balacescu, Constantin Brâncuși University Târgu-Jiu, ROMANIA
Aurelian Udristoiu, Titu Maiorescu University, Branch Târgu-Jiu, ROMANIA

14. WEILBULL DISTRIBUTION IN PREDICTIBLE FAILURE ANALYSIS

Rodica David, „Constantin Brâncuși University of Târgu-Jiu, ROMANIA

15. A STEP TOWARDS ENERGY TRANSITION PART I

Josef Timmerberg, General Electrical Engineering Institut, Steinbeis, Wilhelmshaven, GERMANY
Adriana Tudorache, University "Constantin Brâncuși", Târgu-Jiu, ROMANIA
Francisc Comarlă, University "Constantin Brâncuși", Târgu-Jiu, ROMANIA

16. A STEP TOWARDS ENERGY TRANSITION PART II

Adriana Tudorache, University "Constantin Brâncuși", Târgu-Jiu, ROMANIA

Francisc Comarlă, University "Constantin Brâncuși", Târgu-Jiu, ROMANIA

Josef Timmerberg, General Electrical Engineering Institut, Steinbeis, Wilhelmshaven, GERMANY

17. NEW CONCEPTS REGARDING THE ENERGY INDUSTRY

Adina Tătar, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

Nicoleta Mihuț, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

Georgi Velez, Technical University of Gabrovo, BULGARIA

Section 3

Engineering and management in public alimentation and agrotourism

Conference room: A112

Date 25. 11. 2022

Hours : 10⁴⁵ - 14³⁰

Chairman: Assoc. Prof. PhD. Roxana-Gabriela Popa, “Constantin Brâncuși”
University from Târgu- Jiu

Technical secretariat: Lecturer PhD. Irina-Ramona Pecingină, “Constantin
Brâncuși” University from Târgu- Jiu

1. STUDY ON ESTABLISHMENT EFFICIENCY A ROSE CULTURE

Roxana – Gabriela Popa, Constantin Brâncuși University from Târgu-Jiu, ROMANIA

2. PRINCIPLES AND CHEMICAL METHODS OF FISH PRESERVATION: SALTING, ARTIFICIAL ACIDIFICATION AND SMOKING

Roxana – Gabriela Popa, Constantin Brâncuși University from Târgu-Jiu, ROMANIA

3. CONSIDERATIONS REGARDING CHEMICAL FOOD SAFETY

Daniela Cîrțînă, „Constantin Brâncuși” University of Târgu-Jiu, ROMANIA

4. THE RISK OF FOOD CONTAMINATION THROUGH PLASTIC PACKAGING

Daniela Cîrțînă, „Constantin Brâncuși” University of Târgu-Jiu, ROMANIA

5. RECOMMENDATIONS REGARDING THE ESTABLISHMENT AND DEVELOPMENT OF A BLACKBERRY PLANTATION

Stefan Ghimiș, University Constantin Brâncuși of Târgu-Jiu, ROMANIA

6. STUDY REGARDING THE EVOLUTION OF AGRITOURISM PENSIONS FROM THE ECONOMY OF GORJ COUNTY USING STATISTICAL DATA

Elena Loredana Stăncioiu, University of Petroșani, ROMANIA

Andreea Cristina Ionică, University of Petroșani, ROMANIA

Alin Stăncioiu, „Constantin Brâncuși” University of Târgu -Jiu, ROMANIA

7. QUALITY AND AGROTOURISM MANAGEMENT: A SYSTEMATIC REVIEW OF KEY FINDINGS

Elena Loredana Stăncioiu, University of Petroșani, ROMANIA

Andreea Cristina Ionică, University of Petroșani, ROMANIA

Alin Stăncioiu, „Constantin Brâncuși” University of Târgu -Jiu, ROMANIA

Gueorguiev Tzvetelin, „Angel Kanchev” University of Ruse, BULGARIA

8. THE TECHNOLOGY OF ESTABLISHING A TOMATO CROP IN THE OPEN FIELD

Emil Cătălin Șchiopu, "Constantin Brâncuși" University of Târgu -Jiu, ROMANIA,

9. TECHNOLOGY OF BREEDING BIRDS FOR MEAT

Emil Cătălin Șchiopu, "Constantin Brâncuși" University of Târgu -Jiu, ROMANIA,

10. THE POSSIBILITY OF ESTABLISHING A PLUM CROP IN THE CLASSIC SYSTEM AND ITS EFFICIENCY

Irina-Ramona Pecingină, "Constantin Brâncuși" University from Târgu-Jiu, ROMANIA

11. STUDY ON THE NATURAL, CULTURAL AND GASTRONOMIC POTENTIAL OF THE RÂNCA-NOVACI-BAIA DE FIER AREA

Irina-Ramona Pecingină, "Constantin Brâncuși" University from Târgu-Jiu, ROMANIA

12. ORGANOLEPTIC AND BIOCHEMICAL ANALYSIS OF MILK SAMPLES COLLECTED FROM THE RURAL AREA OF GORJ COUNTY

Violeta Ramona Cazalbașu, "Constantin Brâncuși" University from Târgu - Jiu, ROMANIA

13. PRODUCTION AND CHARACTERIZATION TECHNOLOGY A FIG SWEETS

Violeta Ramona Cazalbașu, "Constantin Brâncuși" University from Târgu - Jiu, ROMANIA

Section 4

Energy and Power engineering

Conference room: A010

Date 25. 11. 2022

Hours : 10⁴⁵ - 13³⁰

Chairman: Assoc. Prof. PhD. Cristinel Popescu, “Constantin Brâncuși” University from Târgu- Jiu

Technical secretariat: Lecturer PhD. Adriana Tudorache, “Constantin Brâncuși” University from Târgu Jiu

1. ANALYSIS OF THE BEHAVIOUR OF THE PHOTOVOLTAIC INSTALLATION AT A POSSIBLE PROSUMER

E. Spunei, Babes-Bolyai University, Cluj-Napoca, ROMANIA

I. Piroi, Babes-Bolyai University, Cluj-Napoca, ROMANIA

2. ANALYSIS OF THE HYBRID OPERATION OF A PHOTOVOLTAIC SYSTEM WITH A DIESEL GENERATOR SET

E. Spunei, Babes-Bolyai University, Cluj-Napoca, ROMANIA

G.Ș. Matasaru, .SC. Endress Group SRL, Bocșa, ROMANIA

3. MODEL OF A SMART PEDESTRIAN TRAFFIC LIGHTS SYSTEM

M. D. Stroia, Babeș-Bolyai University of Cluj-Napoca, Reșița, ROMANIA

C. Hațiegan, Babeș-Bolyai University of Cluj-Napoca, Reșița, ROMANIA

C. Popescu, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

R. E. Ilașcu, OVB Allfinanz Romania, Cluj-Napoca, ROMANIA

4. DESIGN AND CONSTRUCTION OF A REMOTE MEASUREMENT AND CONTROL FACILITY FOR A WATER SUPPLY PROJECT

M. F. Predus, Babeș-Bolyai University, Reșița, ROMANIA

M. D. Stroia, Babeș-Bolyai University, Reșița, ROMANIA

C. Hațiegan, Babeș-Bolyai University, Reșița, ROMANIA

C. Popescu, “Constantin Brâncuși” University of Târgu Jiu, ROMANIA

C. M. Muscai, Polytechnic University of Bucharest, București, and Babeș-Bolyai University, Reșița, ROMANIA

5. ASPECTS REGARDING THE VARIATION BETWEEN LOAD PARAMETERS AND POWER DELIVERED BY 330 MW SYNCHRONOUS GENERATORS

Cristinel Popescu, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

6. ANALYSIS OF THE OIL SUBSECTOR WITHIN THE NATIONAL ENERGY SECTOR ON ENSURING ENERGY AND NATIONAL SECURITY

Nicolae Daniel Fita, University of Petrosani, Strategic Studies of Energy Security Research Center, ROMANIA

Adina Tatar, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

Mila Ilieva Obretenova, University of Mining and Geology St. Ivan Rilski, Sofia, Bulgaria

Dragos Pasculescu, University of Petrosani, ROMANIA

Teodora Lazar, University of Petrosani, ROMANIA

Florin Gabriel Popescu, University of Petrosani, ROMANIA

7. STRUCTURE AND ANALYSIS OF THE POWER SUBSECTOR WITHIN THE NATIONAL ENERGY SECTOR ON ENSURING AND STABILITY OF ENERGY SECURITY

Nicolae Daniel Fita, University of Petrosani, Strategic Studies of Energy Security Research Center, ROMANIA

Mila Ilieva Obretenova, University of Mining and Geology St. Ivan Rilski, Sofia, BULGARIA

Dragos Pasculescu, University of Petrosani, ROMANIA

Adina Tatar, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

Florin Gabriel Popescu, University of Petrosani, ROMANIA

Teodora Lazar, University of Petrosani, ROMANIA

8. ASSESSMENT OF OPERATIONAL INDICATORS OF HYDROELECTRIC PLANTS AVAILABILITY. CASE ANALYSIS OF IAD - DRAGAN HYDROPOWER SECTOR

Minda Andrea Amalia, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

Amariei Olga-Ioana, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

Negrea Daniela, University of Oradea, Oradea, ROMANIA

Lolea Marius, University of Oradea, Oradea, ROMANIA

9. EXPERIMENTAL STUDY OF THE EFFECT OF POLARITY OF ELECTRODES DURING ELECTRIC DISCHARGE GRINDING

Roman Strelchuk, Nat. Tech. Univ. "Kharkiv Polytech. Inst.", Kharkiv, Ukraine

Section 5

Mechanical engineering, materials and manufacturing systems

Conference room: A016

Date 25. 11. 2022

Hours : 10⁴⁵ - 14⁰⁰

Chairman: Prof. PhD. Gilbert-Rainer Gillich, University „Babes-Bolyai” of Cluj-Napoca, ROMANIA

Technical secretariat: Lecturer PhD. Cătălina Ianăși, University “Constantin Brâncuși” of Târgu-Jiu, ROMANIA

1. PRECISION APPRAISAL OF PLASTIC GEARS MADE BY ADDITIVE MANUFACTURING

Z.I. Korka, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

A.V. Bloju, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

C.R. Sfetcu, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

D.E. Traistaru, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

A. Bara, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

2. FREQUENCY ESTIMATION USING AN ARTIFICIAL NEURAL NETWORK AND THE DISCRETE FOURIER TRANSFORM

Daniela Giorgiana Burtea, University Babes-Bolyai, Cluj-Napoca, ROMANIA

Cristian Tufisi, University Babes-Bolyai, Cluj-Napoca, ROMANIA

Gilbert-Rainer Gillich, University Babes-Bolyai, Cluj-Napoca, ROMANIA

Carla-Silvana Constantin, University Babes-Bolyai, Cluj-Napoca, ROMANIA

3. NATURAL FREQUENCIES EVOLUTION BY CHANGING THE LENGTH OF DIAGONALS ON A WARREN TRUSS

Dan Alexandru Pîrșan, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

Zeno-Iosif Praisach, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

Manu Lucian Nestor, Babeș-Bolyai University, Cluj-Napoca, ROMANIA

4. NON-CONTACT EXCITATION SYSTEM TO HIGHLIGHT THE VIBRATION MODES OF BEAMS

Rusalin Lucian Paun, Universitatea Babes-Bolyai, Cluj-Napoca, ROMANIA

Gilbert-Rainer Gillich, Universitatea Babes-Bolyai, Cluj-Napoca, ROMANIA

Cristian Tufisi, Universitatea Babes-Bolyai, Cluj-Napoca, ROMANIA

Nicoleta Gillich, Universitatea Babes-Bolyai, Cluj-Napoca, ROMANIA

5. TESTING THE RELIABILITY OF A 3D COST FUNCTION FOR DAMAGE DETECTION IN SIMPLY SUPPORTED BEAMS

C.O. Hamat, University Babes-Bolyai, Cluj-Napoca, ROMANIA
C. Tufisi, University Babes-Bolyai, Cluj-Napoca, ROMANIA
C. Aman, University Babes-Bolyai, Cluj-Napoca, ROMANIA
G. R. Gillich, University Babes-Bolyai, Cluj-Napoca, ROMANIA

6. THEORETICAL AND EXPERIMENTAL STUDIES ON THERMAL PHENOMENA IN CENTERLESS GRINDING

A. Cernăianu, University of Craiova, Craiova, ROMANIA
C. Cernăianu, University of Craiova, Craiova, ROMANIA
E. Stăncuț, University of Craiova, Craiova, ROMANIA

7. THEORETICAL AND EXPERIMENTAL STUDIES ON HELICAL SPRINGS SUBJECTED TO LONGITUDINAL VERTICAL SHOCK

A. Cernăianu, University of Craiova, Craiova, ROMANIA
C. Cernăianu, University of Craiova, Craiova, ROMANIA
E. Stăncuț, University of Craiova, Craiova, ROMANIA

8. CONSIDERATIONS REGARDING THE EFFECT OF THE TEMPERATURE HEAT TREATMENT OF AGING ON CAVITATION EROSION BEHAVIOR OF THE ALUMINUM ALLOY 2017 A

A. N. Luca, Politehnica University of Timisoara, Timisoara, ROMANIA
I. Bordeasu, Politehnica University of Timisoara, Timisoara, ROMANIA
C. Ghera, Politehnica University of Timisoara, Timisoara, ROMANIA
I. Lazar, Politehnica University of Timisoara, Timisoara, ROMANIA
D. Bordeasu, Politehnica University of Timisoara, Timisoara, ROMANIA
C. E. Podoleanu, Politehnica University of Timisoara, Timisoara, ROMANIA
S. T. Duma, Politehnica University of Timisoara, Timisoara, ROMANIA
R. Badarau, Politehnica University of Timisoara, Timisoara, ROMANIA

9. RESULTS CONCERNING THE DETERMINATION THROUGH ANALYTICAL CALCULATIONS OF THE FORCE SYSTEM ACHIEVED BY THE METALLIC WASTE PRESS

Răzvan Bogdan Itu, University of Petroșani, ROMANIA
Vlad Alexandru Florea, University of Petroșani, ROMANIA

10. THE EXPERIMENTAL INVESTIGATION OF THE FORCE SYSTEM FROM THE ACTING ELEMENTS OF THE PRESS FOR BALOTTING METALLIC

Răzvan Bogdan Itu, University of Petroșani, ROMANIA
Vlad Alexandru Florea, University of Petroșani, ROMANIA

11. THE COMPARATIVE STUDY OF THE NON-INSULATED AND INSULATED PARKING IN THE SEISMIC DESIGN. CHECKING THE SERVICE LIMIT STATE(SLS) AND AT THE ULTIMATE LIMIT STATE(ULS)

Carmen Elisabeta Radu, University POLITEHNICA of Bucharest, ROMANIA

Edward Rășchitor, University POLITEHNICA of Bucharest, ROMANIA

George Adîr, University POLITEHNICA of Bucharest, ROMANIA

Iosif Tempea, University POLITEHNICA of Bucharest, ROMANIA

12. DAMPING TECHNOLOGIES FOR THE ANTI-SEISMIC PROTECTION OF AN ABOVE-GROUND ROBOTIC PARKING LOT

Carmen Elisabeta Radu, University POLITEHNICA of Bucharest, ROMANIA

Edward Rășchitor, University POLITEHNICA of Bucharest, ROMANIA

George Adîr, University POLITEHNICA of Bucharest, ROMANIA

Iosif Tempea, University POLITEHNICA of Bucharest, ROMANIA

Conference room: A016

Date 25. 11. 2022

Hours : 1700 - 1930

Chairman: Prof. PhD. Cătălin Iancu, “Constantin Brâncuși” University from Târgu-Jiu

Technical secretariat: Lecturer PhD. Alin Stăncioiu, “Constantin Brâncuși” University from Târgu Jiu

13. THE EVOLUTION OF ROLLER BEARINGS OVER TIME. BALL BEARING MANUFACTURING ASPECT

T. Mănescu, University „Aurel Vlaicu”, Arad, ROMANIA

14. CONSIDERATIONS REGARDING THE LASER ABLATION METHOD OF DEPOSITION OF THIN LAYERS

Nicoleta-Maria Mihut, “Constantin Brâncuși” University of Târgu-Jiu, ROMANIA

Adina Milena Tătar, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

Georgi Velevev, Technical University of Gabrovo, BULGARIA

15. ABOUT 3D PRINTING LESS USUAL APPLICATIONS

Cătălin Iancu, “Constantin Brâncuși” University of Târgu-Jiu, ROMANIA

16. 3D MODELING OF THE PARTS USING THE AUTOCAD SOFTWARE

Alin Stăncioiu, “Constantin Brâncuși” University of Târgu -Jiu, ROMANIA

Elena Loredana Stăncioiu, University of Petroșani, ROMANIA

17. MODERN HEAT TREATMENTS APPLIED TO MACHINE PARTS

Alin Stăncioiu, “Constantin Brâncuși” University of Târgu -Jiu, ROMANIA

Elena Loredana Stăncioiu, University of Petroșani, ROMANIA

18. CONSIDERATION FOR PRINTING A MECHANICAL VENTILATION VALVE USING FDM TECHNOLOGY

Cristina Ionici, University "Constantin Brâncuși" of Târgu-Jiu, ROMANIA
Carmen Bărbăcioru, University "Constantin Brâncuși" of Târgu-Jiu, ROMANIA
Ciprian Păsătoiu, University "Constantin Brâncuși" of Târgu-Jiu, ROMANIA
Georgi Velez, Technical University Gabrovo, BULGARIA

19. ANALYSIS OF THE INFLUENCE OF THE SEATING ANGLE „ α „ ON THE VIBRATIONS THAT APPEAR DURING TURNING PROCESSING.

Mădălin Tomescu, Lucian Blaga University of Sibiu, Sibiu, ROMANIA
Cosmin Ionescu, Energy High School of Târgu-Jiu, Gorj, ROMANIA

20. AN OVERALL ASPECT OF Ni-P DEPOSITIONS

Minodora Pasăre, "University "Constantin Brâncuși" of Târgu-Jiu, ROMANIA
Maria Plamenova Nikolova, "Angel Kanchev" University of Ruse, BULGARIA
Tzvetelin K. Gueorguiev, "Angel Kanchev" University of Ruse, BULGARIA

21. ON THE DESIGN OF PRODUCTION PROCESSES IN QUARRIES

Cătălina Ianăși, "University "Constantin Brâncuși" of Târgu-Jiu, ROMANIA

22. RESEARCH ON THE ANALYTICAL AND EXPERIMENTAL PROCESS OF APPLYING HIGH TEMPERATURE STRENGTH CONDITIONS OF STEELS

Cornel Hațiegan, Babeș-Bolyai University of Cluj-Napoca, ROMANIA
Lenuța Cînde, Babeș-Bolyai University of Cluj-Napoca, ROMANIA
Cristinel Popescu, Constantin Brâncuși University of Târgu-Jiu, ROMANIA

23. OPTIMISING THE OPERATION OF AN EXHAUSTION SYSTEM

Lenuța Cînde, Babeș-Bolyai University of Cluj-Napoca, ROMANIA
Cornel Hațiegan, Babeș-Bolyai University of Cluj-Napoca, ROMANIA
Cristinel Popescu, Constantin Brâncuși University of Tg-Jiu, ROMANIA

24. DETERMINATION OF THE CONVECTIVE HEAT TRANSFER COEFFICIENT FOR WELDING IN A SHIELDING GAS ENVIRONMENT

Lenuța Cînde, Babeș-Bolyai University of Cluj-Napoca, ROMANIA
Marius-Florian Preduș, Babeș-Bolyai University of Cluj-Napoca, ROMANIA
Cristinel Popescu, Constantin Brâncuși University of Târgu-Jiu, ROMANIA
Cornel Hațiegan, Babeș-Bolyai University of Cluj-Napoca, ROMANIA

Section 6

Quality management

Conference room: A113

Date 25. 11. 2022

Hours : 10⁴⁵ – 13¹⁵

Chairman: Prof. PhD. Liviu Marius Cîrțînă, “Constantin Brâncuși” University from Târgu- Jiu

Technical secretariat: Lecturer PhD. Constanța Rădulescu, “Constantin Brâncuși” University from Târgu Jiu

1. TOTAL QUALITY MANAGEMENT, ISO STANDARDS AND EXCELLENCE MODELS – A COMPARATIVE ANALYSIS

Tzvetelin Gueorguiev, University of Ruse “Angel Kanchev”, Ruse, BULGARIA

Danko Tonev, University of Ruse “Angel Kanchev”, Ruse, BULGARIA

Elena Loredana Stăncioiu, University of Petroșani, ROMANIA

2. DETERMINING THE DURATION OF A PROJECT BY SIMULATION

Olga-Ioana Amariei, Babeș-Bolyai University of Cluj-Napoca, ROMANIA

Codruța-Oana Hamat, Babeș-Bolyai University of Cluj-Napoca, ROMANIA

Andrea Amalia Minda, Babeș-Bolyai University of Cluj-Napoca, ROMANIA

3. PROCESS CAPABILITIES, CASE STUDY FOR CYLINDRICAL TYPE BENCHMARK OUTSIDE DIAMETER -TEST TO DETERMINE DISTRIBUTION TYPE

L. M. Cîrțînă, University „Constantin Brâncuși” from Târgu-Jiu, ROMANIA

C. Rădulescu, University „Constantin Brâncuși” from Târgu-Jiu, ROMANIA

Bülent İmamoğlu, GEDİK University from Istanbul, TURKEY

4. PROCESS CAPABILITIES, CASE STUDY FOR CYLINDRICAL TYPE BENCHMARK OUTER DIAMETER - CAPABILITY INDICATORS

L. M. Cîrțînă, University „Constantin Brâncuși” from Târgu-Jiu, ROMANIA

C. Rădulescu, University „Constantin Brâncuși” from Târgu-Jiu, ROMANIA

Penka Zlateva, Technical University from Varna, BULGARIA

5. ASPECTS REGARDING THE NECESSARY 3D PRINTING STAGES TO OBTAIN COMPLEX MODELS

C. Rădulescu, University „Constantin Brâncuși” from Târgu-Jiu, ROMANIA

L. M. Cîrțînă, University „Constantin Brâncuși” from Târgu-Jiu, ROMANIA

6. CONFIGURATIONS OF QUALITY, SHELL AND INFIL CATEGORIES THAT INFLUENCE THE QUALITY OF PRINTING 3D MODELS

C. Rădulescu, University „Constantin Brâncuși” from Târgu-Jiu, ROMANIA

L. M. Cîrțînă, University „Constantin Brâncuși” from Târgu-Jiu, ROMANIA

7. RESEARCH DIRECTIONS ON THE MANAGERIAL APPROACH IN THE FIELD OF UNCONVENTIONAL TECHNOLOGIES

Alin Nioață, ”Constantin Brâncuși” University of Târgu-Jiu, ROMANIA

8. THE NOTCHING EFFECT ON THE FATIGUE LIMIT

Rodica David „Constantin Brâncuși University of Târgu-Jiu, ROMANIA

Florin Vîlceanu, PROTECHNO METAL SRL, ROMANIA