

TUIASI
doctoral



**INTERNATIONAL
CONFERENCE OF
THE DOCTORAL SCHOOL**

“GHEORGHE ASACHI”

TECHNICAL UNIVERSITY OF IASI, ROMANIA

5TH INTERNATIONAL CONFERENCE OF THE DOCTORAL SCHOOL

CONFERENCE PROGRAM

18-20 MAY, 2022

IASI, ROMANIA

**Excellence in Doctoral Studies
through Innovation, Convergence
and Interdisciplinarity**



WWW.CONFERINTA-CSD.TUIASI.RO



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



5th International Conference of the Doctoral School

"Gheorghe Asachi" Technical University of Iasi

*Excellence in Doctoral Studies through Innovation,
Convergence and Interdisciplinarity*

CONFERENCE PROGRAMME

May 18 – 20, 2022

IAȘI, ROMÂNIA



Organizers

- "Gheorghe Asachi" Technical University of Iasi, Romania
- Council for Doctoral University Studies, CSUD
- Council of Doctoral School, CSD

Partner:

- "Gheorghe Asachi" University Foundation, Iasi, Romania

Conference Sections

- **Section 1.** Computers and information technology; Systems engineering
- **Section 2.** Chemistry; Chemical engineering; Environmental engineering
- **Section 3.** Civil engineering and installations
- **Section 4.** Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology
- **Section 5.** Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management



Organizer Message

Dear PhD Students,
Dear Colleagues and Guests,
Dear Participants,

At its fifth edition, the International Conference of the Doctoral School at the "Gheorghe Asachi" Technical University of Iasi (TUIASI) aims to provide PhD students of the Doctoral Schools from Technical Universities in Romania and abroad with a favourable framework for communicating the results of their research, exchanging ideas and initiating new collaborations, refine their theoretical and methodological approaches, encouraging presentation and continuous development of interdisciplinary research. The three days' conference (18th-20th of May, 2022) consist of five panel sessions, where PhD students can present and discuss their research papers. The program of the conference will also include a number of plenary presentations held by prestigious professors from universities with which TUIASI has close collaborations.

The conference aims to bring together miscellaneous oral presentations dealing with relevant problems associated to the thirteen doctoral fields at the university: Chemistry; Computers and information technology; Chemical engineering; Civil engineering and installations; Electrical engineering; Electronic engineering, telecommunications and information technologies; Energetic engineering; Industrial engineering; Materials engineering; Mechanical Engineering; Environmental engineering; Systems engineering; Engineering and management.

Bridging the scientific doctoral fields, encouraging the innovation through interdisciplinary collaboration, and the orientation towards internationalization, this event can offer an intellectual intersection between disciplines in which new ideas and progress in science would appear. This way the doctoral programs can be implemented with a focus on training PhD students for research and acquiring a set of core competencies that will allow for the immediate transfer to social institutions in search of a sustainable economy. For PhD students in the earlier stages of doctoral studies, the conference provides an opportunity to train for their first contributions to a certain scientific field, while for the PhD students in later stages, the communications held during conference can be seen as a scientific step towards the jobs market.

Please visit the conference website at: <https://conferinta-csd.tuiasi.ro/>

Welcome to CSD2022, wishing you a successful conference!

Honorary President,

Professor Dan CAȘCAVAL

Rector TUIASI



Conference committees

HONORARY PRESIDENT

Prof.dr. **Dan Cașcaval**, **RECTOR**, "Gheorghe Asachi" Technical University of Iasi, Romania

PRESIDENT

Prof.dr. **Alina-Adriana Minea**, "Gheorghe Asachi" Technical University of Iasi, Romania

CO-PRESIDENT

Prof.dr. **Maria Gavrilescu**, "Gheorghe Asachi" Technical University of Iasi, Romania

INTERNATIONAL SCIENTIFIC COMMITTEE

- Prof.dr. **Dominique Adolphe**, University Haute-Alsace, Mulhouse, France
- Prof.dr. **Giullia Loretta Batali**, Technical University of Civil Engineering of Bucharest, Romania
- Prof.dr. **Radu Gabriel Bozomitu**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Leandru-Gheorghe Bujoreanu**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Andrei Burlacu**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof. dr. **Simona Caraiman**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Gianfranco Chicco**, Polytechnic of Turin, Italy
- Prof. dr. **Iulian Aurelian Ciocoiu**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **António Cruz Serra**, Technical University of Lisbon, Portugal
- Prof.dr. **Antonela Curteza**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Pasquale Daponte**, University of Sannio, Italy
- Prof.dr. **Oana Dodun-Des-Perrieres**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Dan Eliezer**, Ben Gurion University of Negev, Beer-Sheva, Israel
- Prof.dr. **Lidia Gaiginschi**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Mihai Gavrilas**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Liviu Goraș**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Nicolae Hurduc**, Gheorghe Asachi Technical University of Iasi, Romania



- Prof.dr. **Horia Iovu**, University Politehnica Bucharest
- Prof.dr. **Dumitru Marcel Istrate**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Nicolas Kalogerakis**, Technical University of Crete, Chania, Greece
- Prof.dr. **Maria Carmen Loghin**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Irina Lungu**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Luis Lugo**, University of Vigo, Spain
- Prof.dr. **Antonio Marzocchella**, University Federico II, Naples, Italy
- Prof.dr. **Omid Mahian**, Xi'an Jiaotong University, China
- Assoc.Prof.dr. **Petru Mihai**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Janus Mindykowski**, Gdynia Maritime University, Poland
- Prof.dr. **Corneliu Munteanu**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Sohel Murshed**, University of Lisbon, Portugal
- Prof.dr. **Octavian Pastravanu**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Doina Pîslă**, Technical University of Cluj-Napoca, Romania
- Prof.dr. **Radu-Emil Precup**, Politehnica University of Timișoara, Romania
- Prof.dr. **Alexandru Sălceanu**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof. dr. **Neculai Eugen Seghedin**, Gheorghe Asachi Technical University of Iasi, Romania
- Prof.dr. **Irina Volf**, Gheorghe Asachi Technical University of Iasi, Romania

EXECUTIVE COMMITTEE

- Prof.dr. **Maria Gavrilescu**
- Prof.dr. **Maricel Adam**
- Prof.dr. **Ioan Doroftei**
- Prof.dr. **Florin Leon**

SECRETARIAT

- Eng. **Cristina Nagiț**
- **Sabina Bobu** (sabina.bobu@staff.tuiasi.ro)
- Lect.dr. **Andrei Dontu (Section 1)** (andrei-ionut.dontu@academic.tuiasi.ro)
- PhD Student **Iolanda Fustes-Damoc (Section 2)** (iolanda.fustes-damoc@student.tuiasi.ro)
- PhD Student **Cosmin-Ionut Gosav (Section 3)** (cosmin-ionut.gosav@student.tuiasi.ro)
- PhD Student **Vasile Grosu (Section 4)** (vasile.grosu@student.tuiasi.ro)
- Assist.prof.dr. **Elena Ionela Chereches (Section 5)** (elena-ionela.chereches@academic.tuiasi.ro)



General information

About our university

"Gheorghe Asachi" Technical University of Iasi is one of the most prestigious universities in Romania, being classified as an advanced research and education university (according to the Order of Ministry of Education and Research, MECS nr. 5262/2011), whose mission is to carry out specific activities of creation, innovative capitalization of knowledge and its transfer to society in the fundamental fields of engineering sciences, architecture and urbanism, as well as in interdisciplinary and complementary fields, in the local community, at regional, national and international levels.

"Gheorghe Asachi" Technical University of Iasi has the oldest tradition in engineering education in Romania, initiated by Gheorghe Asachi, a representative of the Romanian Enlightenment, and established within the Greek Academy in Iasi (Royal Academy) on November 15, 1813, by the decree signed by Scarlat Calimachi, the ruler of Moldova at that time. This school can be considered the nucleus of higher technical education in Moldova, continuing education between 1834-1847 at the Mihăilean Academy and later at the University of Iasi in the School of Industrial Electricity (since 1910), the Electrotechnical Institute (1912) and the Department of Technological Chemistry (since 1911).

On November 7, 1912, the Faculty of Sciences of the University of Iasi was transformed into an independent department of higher education for teaching electrical engineering, applied chemistry and agricultural sciences. This event represents the "birth certificate" of what later became the Polytechnic Institute of Iasi ("Gheorghe Asachi" Technical University of Iasi today), respectively of the Faculty of Electrical Engineering, Energy and Applied Informatics and the Faculty of Chemical Engineering and Environment Protection.

A crucial moment in the history of our university is the Decision no. 205.660/ 03.12.1937 of the Ministry of National Education, when, the technical higher education is taken out from the aegis of the University of Iasi by the establishment of the „Gheorghe Asachi” Polytechnic School of Iași, as a distinct institution of engineering higher education, the only higher education institution authorized to grant from that date the title of engineer. The University began its activity on October 1, 1938, within three faculties: Industrial Chemistry, Electrical Engineering and Agricultural Sciences, of which the first two were based in Iasi and the third in Chisinau. The first diplomas were issued in 1940.

Through the education reform of 1948, the "Gheorghe Asachi" Polytechnic Institute was established in Iași, with four faculties and ten specializations: Industrial Chemistry (mineral chemistry, leather), Civil Engineering, Electrical Engineering, Mechanics (thermodynamic engineering, hydrotechnics, machine building, aero-naval engineering) with a duration of studies of five years. The Polytechnic Institute of Iași functioned until 1990 with 6 faculties and many newly created specializations. In 1990, four new faculties were established, coming from the faculties of Electrical Engineering and Mechanics.

In 1993 the name of "Polytechnic Institute of Iasi" was replaced by "Gheorghe Asachi" Technical University of Iasi (TUIASI). In 2004 the Architecture department within the Faculty of Constructions and Installations became the "G.M. Cantacuzino" Faculty of Architecture and since then 11 faculties operate within TUIASI.

Today, TUIASI develops programs for undergraduate, master, doctoral, postdoctoral studies and scientific research in interdisciplinary research areas, out of which 10 areas were classified in category A, according to Law 1/2011 and HG 789/2011. The doctoral activity is organized within an interdisciplinary doctoral school including 13 doctoral fields established according to national and international research priority areas.



About the Conference program

The 5th edition of the International Conference of the Doctoral School of IOSUD "Gheorghe Asachi" Technical University of Iasi (CSD2022), which is organized under the generic "Excellence in Doctoral Studies through Innovation, Convergence and Interdisciplinarity" is programmed during May 18-20, 2022 as videoconference (a fee is not charged).

During the event, plenary conferences are scheduled, lasting 40 minutes each (including discussions), as well as oral presentations lasting 15 minutes each (including discussions). The papers received in the frame of five planned sections will be held on each conference day in 4 parallel sessions, each sessions being organized in 3 blocks, coordinated by a chairperson, separated by coffee breaks or lunch.

The Conference will be developed on **ZOOM platform**, at links which are communicated to the attendees and guests before conference start, on the conference website.

VERY IMPORTANT

The authors who will hold oral presentations are invited to log in at the beginning of the session in which the presentation is scheduled in order to avoid unexpected breaks during the session.

Oral presentations will be given in English.

A PowerPoint support for your presentation adequate for 15 minutes would serve as visual aids that can enhance audience engagement and their understanding of your speech!

Contact persons:

Prof.dr. Maria Gavrilescu

mgav@tuiasi.ro; +40 745528184

Prof.dr. Alina-Adriana Minea

alina-adriana.minea@academic.tuiasi.ro; +40 723455071

Contact persons for Parallel Sessions:

Parallel Session 1: Prof. dr. Alina-Adriana Minea

Parallel Session 2: Secr. Sabina Bobu (sabina.bobu@staff.tuiasi.ro)

Parallel Session 3 and 4: Assist. prof. dr. Elena Ionela Chereches (elena-ionela.chereches@academic.tuiasi.ro)

Information about CSD2022 can be found on Facebook, as well: <https://www.facebook.com/csdtuiasi>



GENERAL CSD2022 CONFERENCE PROGRAM

Wednesday, 18 May, 2022

Time	Event			
9.00-9.25	Opening ceremony			
9.30-10.10	Plenary Conference 1			
10.10-10.50	Plenary Conference 2			
Link	https://zoom.us/j/93766244066?pwd=RUFQL3Fyd2JrbTJCWTVrRExVVUxzZz09			
10.50-11.15	Coffee Break			
11.15-12.45	<p>Parallel Session 1.1 Section 1. Computers and information technology; Systems engineering</p>	<p>Parallel Session 2.1 Section 2. Chemistry; Chemical engineering;</p>	<p>Parallel Session 3.1 Section 3. Civil engineering and installations</p>	<p>Parallel Session 4.1 Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology</p>
Link	https://zoom.us/j/94176607894?pwd=cFFaDd3UkFRNERXbnI2U2RQRm1ldz09	https://zoom.us/j/96894829837?pwd=eEVVY0NBkYkdVcExMOGhnaVRm1ldz09	https://zoom.us/j/98283377167?pwd=ckpaSW82NnNQWZyTnJrMC9PcVBIQT09	https://zoom.us/j/95975675051?pwd=UE13c2JBUjIRUGx3Qk5CNVVTWNnQT09
12.45-14.00	Lunch			
14.00-15.30	<p>Parallel Session 1.2 Section 1. Computers and information technology; Systems engineering and information technology</p>	<p>Parallel Session 2.2 Section 2. Chemistry; Chemical engineering; Environmental engineering</p>	<p>Parallel Session 3.2 Section 3. Civil engineering and installations</p>	<p>Parallel Session 4.2 Section 2. Chemistry; Chemical engineering; Environmental engineering</p> <p>Section 5. Mechanical engineering; Industrial engineering;</p>



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



				Materials engineering; Engineering and management
Link	https://zoom.us/j/93257315783?pwd=cXVXd3prQ1lrK2dDN0liVkJ5jRtF5UT09	https://zoom.us/j/92604037763?pwd=LzZsdnQxc2x5YXA3Um5lb1FFdUYXA3Um5lb1FFdUoyQT09	https://zoom.us/j/95005305500?pwd=ZGtQTUtv0MyQ2M3ME1zVlgwQlRpZz09	https://zoom.us/j/91235013674?pwd=Z1dzNVhtZ2U0M3JnbWNoMUJmRTExdz09

15.30-16.00 **Coffee Break**

16.00-18.00	Parallel Session 1.3 Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology	Parallel Session 2.3 Section 2. Chemistry; Chemical engineering; Environmental engineering	Parallel Session 3.3 Section 3. Civil engineering and installations	Parallel Session 4.3 Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management
Link	https://zoom.us/j/97741534566?pwd=ZlE3QjVoUfhxam53UitJa0l5c1MrUT09	https://zoom.us/j/92859548644?pwd=SVYydEpldVYwL2pYV3N2YW9nNWWhoQT09	https://zoom.us/j/91743494288?pwd=bldDV3ExY20xVHYwOE4yWmtEUituZz09	https://zoom.us/j/95157142140?pwd=dmw3MWtOd2NSdmdjbXhRN VhmdjllQT09

Thursday, 19 May, 2022

Time	Event
9.30-10.10	Plenary Conference 3
10.10-10.50	Plenary Conference 4
Link	https://zoom.us/j/93334424942?pwd=aTkveVFmVUlKZTk0SWpOWHYybkYrQT09
10.50-11.15	Coffee Break



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



11.15-12.45	<p align="center">Parallel Session 1.4</p> <p align="center">Section 5. Mechanical engin666eering; Industrial engineering; Materials engineering; Engineering and management</p>	<p align="center">Parallel Session 2.4</p> <p align="center">Section 2. Chemistry; Chemical engineering; Environmental engineering</p>	<p align="center">Parallel Session 3.4</p> <p align="center">Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management</p>	<p align="center">Parallel Session 4.4</p> <p align="center">Section 2. Chemistry; Chemical engineering; Environmental engineering Section 3. Civil engineering and installations</p>
Link	https://zoom.us/j/99036779328?pwd=QVdQQjdsM3NtSkVxZTRHbVJXQWVHdz09	https://zoom.us/j/93380585202?pwd=NjlwTDNydT4NUxQNEEYQ3VneEZtUT09	https://zoom.us/j/91649831475?pwd=REpYUHZQQWpCK1NxUWdLU0VnMUVOQT09	https://zoom.us/j/97144066341?pwd=RjlsYWp6aEJTbkJIRTFMOEVRbDZQUT09
12.45-14.00	Lunch			
14.00-15.30	<p align="center">Parallel Session 1.5</p> <p align="center">Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology</p>	<p align="center">Parallel Session 2.5</p> <p align="center">Section 2. Chemistry; Chemical engineering; Environmental engineering</p>	<p align="center">Parallel Session 3.5</p> <p align="center">Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology</p>	<p align="center">Parallel Session 4.5</p> <p align="center">Section 2. Chemistry; Chemical engineering; Environmental engineering</p>
Link	https://zoom.us/j/91266724872?pwd=eEZzbThyREhPWwFCRW5Oem5SRWpXQT09	https://zoom.us/j/99409327726?pwd=YVJVSwtTnFxN0VRZUhMcUxsOVpVQT09	https://zoom.us/j/91610365207?pwd=bi8rQzY2aC9aS09RUVpmS3JwbCs5Zz09	https://zoom.us/j/92513221444?pwd=VmMvVEVBY2JRNEdUWDI1SFc5ZWJvUT09
15.30-16.00	Coffee Break			
16.00-17.45	<p align="center">Parallel Session 1.6</p> <p align="center">Section 4. Electrical engineering; Energy engineering; Electronic</p>	<p align="center">Parallel Session 2.6</p> <p align="center">Section 2. Chemistry; Chemical engineering; Environmental engineering</p>	<p align="center">Parallel Session 3.6</p> <p align="center">Section 4. Electrical engineering; Energy engineering; Electronic</p>	<p align="center">Parallel Session 4.6</p> <p align="center">Section 5. Mechanical engineering; Industrial engineering; Materials</p>



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



	engineering, telecommunications		engineering, telecommunications	engineering; Engineering and management
Link	https://zoom.us/j/94825148108?pwd=V1dWT1c2ZHJd3dRenFMR20vRkRMQT09	https://zoom.us/j/99826303759?pwd=c1UzN05NanIYMWVGTCtsZzF0YnJBZz09	https://zoom.us/j/99557536461?pwd=ZG50bFN0Z0pETWIIUkhtV0VMcFB3Zz09	https://zoom.us/j/96007277519?pwd=RXFiVVVzb2Y3Ykw0Q1hUc1hsbTE3dz09

Friday, 20 May, 2022

Time	Event
9.30-10.10	Plenary Conference 5
10.10-10.50	Plenary Conference 6
Link	https://zoom.us/j/94345133250?pwd=UnA5NGszYXNGUkw0R1F3bS9ndVBTQT09

10.50-11.00	Short Break
-------------	-------------

11.00-13.00	<p>Parallel Session 1.7</p> <p>Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management</p>	<p>Parallel Session 2.7</p> <p>Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology</p>	<p>Parallel Session 3.7</p> <p>Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management</p>	<p>Parallel Session 4.7</p> <p>Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management</p>
	Link	https://zoom.us/j/91843262624?pwd=a1NFdnppbUpZeXhUU2hXbS9vbUZDUT09	https://zoom.us/j/94041116219?pwd=eXdQSjMyYUt6NE1UUzdJTHhRMnZYdz09	https://zoom.us/j/99557536461?pwd=ZG50bFN0Z0pETWIIUkhtV0VMcFB3Zz09

13.00-13.15	Coffee Break
-------------	--------------



13.15-15.00	<p>Parallel Session 1.8</p> <p>Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management</p>	<p>Parallel Session 2.8</p> <p>Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology</p> <p>Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management</p>	<p>Parallel Session 3.8</p> <p>Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management</p>	<p>Parallel Session 4.8</p> <p>Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management</p>
Link	https://zoom.us/j/98770660797?pwd=-dkYyakpWcXpiSDIpnZjPeWk3QnpxZz09	https://zoom.us/j/94582441316?pwd=OTRUNGttTGZiWXZtWGpsVzQ1YkZVZz09	https://zoom.us/j/97738277188?pwd=-UFhSb2ZuN3RyTmVPT1I3QWdmVVhpZz09	https://zoom.us/j/91674317615?pwd=RGdIYU1Ec0dUb3RjUmtaeFBkaIN6dz09
15.00-15.30	Closing ceremony			
Link	https://zoom.us/j/92583255008?pwd=N3pjMTVab1B1RnFobjcvbmdhV0N0UT09			



CSD2022 DETAILED CONFERENCE PROGRAM

Wednesday, 18 May, 2022

Time	Event	
9.00-9.25	Opening ceremony	
	Prof.dr. Alina-Adriana Minea	Director of the Council for Doctoral Studies, "Gheorghe Asachi" Technical University of Iasi, Romania President of CSD2022
	Prof.dr. Dan Cașcaval	Rector of the Technical University of Iasi, Romania Honorary President of CSD2022
	Prof.dr. Carmen-Maria Loghin	Vice-Rector Scientific Research, Development and Innovation
	Prof.dr. Maria Gavrilescu	Director of the Doctoral School, "Gheorghe Asachi" Technical University of Iasi, Romania Co-President of CSD2022

PLENARY SESSION 1

Chairperson: Prof.dr. Alina-Adriana Minea

9.30-10.10	Photovoltaic Thermal Hybrid Solar Collectors: State of the Art and Recent R&D Activities	Prof.dr. Monica Siroux University Strasbourg, National Institute of Applied Science (INSA), Strasbourg, France
10.10-10.50	Concepts and Methodologies for the Development of Autonomous Off-Road Vehicles	Prof.dr. Karsten Berns Technische Universität Kaiserslautern, Germany
10.50-11.15	Coffee Break	

Parallel Session 1.1: **Wednesday, 18 May, 11.15-12.45**

Section 1. Computers and information technology; Systems engineering

Chairperson: Assoc. Prof. dr. Robert Lupu

Time	Oral presentation	Authors
11.15-11.30	Advent of Wasserstein generative adversarial networks with gradient penalty for synthesising agricultural weed images	Shubham Rana , Salvatore Gerbino University of Campania "Luigi Vanvitelli", Department of Engineering, 29 Via Roma, Aversa (CE), 81031, Italy (Communication)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



11.30-11.45	Security and encryption of data used in cloud computing	Alexandra Boțan Transilvania University of Brasov, Faculty of Electrical Engineering and Computer Science, Mihai Viteazul Street 5, Brașov, 500174, Brasov, Romania (Computers and information technology)
11.45-12.00	A short survey of the development and applications of Spiking Neural Networks of high biological plausibility	George-Iulian Uleru , Mircea Hulea, Vasile-Ion Manta "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Automatic Control and Computer Engineering, 27 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Computers and information technology)
12.00-12.15	What factors influence technology adoption in Europe? A panel data approach	Eugenia Oana , Monica Roman Bucharest University of Economic Studies, Bucharest, Romania (Economic informatics)
12.15-12.30	Comparison of linear quadratic regulator and model predictive control based algorithms in continuous pharmaceutical manufacturing	Amelia Chindrus ¹ , Dana Copot ² , Constantin-Florin Căruntu ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Automatic Control and Computer Engineering, 27 Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² Ghent University, Belgium, Faculty of Engineering and Architecture, 125 Tech Lane Science Park, 9052, Ghent, Belgium (Systems engineering)
12.30-12.45	Agile approaches to developing e-Business solutions in a secure cyber environment in 2022	Marius Ștefan Bucharest University of Economic Studies, Bucharest, Romania (Economic informatics)
12.45-14.00	Lunch	

Parallel Session 2.1: Wednesday, 18 May, 11.15-12.45

Section 2. Chemistry; Chemical engineering; Environmental engineering

Chairperson: Prof.dr. Daniela Șuteu

Time	Oral presentation	Authors
11.15-11.30	Perspective studies on heat generation of magnetic nanocrystals	Julia Natalia Majcherkiewicz ^{1,2} , Verónica Salgueiriño ^{1,2} ¹ Departamento de Física Aplicada, Universidade de Vigo, 36310 Vigo, Spain ² CINBIO, Universidade de Vigo, 36310 Vigo, Spain (Applied physics)
11.30-11.45	Synthesis and liquid crystalline properties of some symmetric seven rings isophthalic acid	Iulian Berladean ^{1,2} ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Chemical Engineering and



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



	derivatives with bent-core molecules	Environmental Protection, Bd D. Mangeron 71A, 700050 Iasi, Romania ² Université du Littoral Côte d'Opale, Unité de Dynamique et Structure des Matériaux Moléculaires. MERI1, 145 Av., Maurice Schumann 59140 Dunkerque, France (Chemistry)
11.45-12.00	Preliminary results of microalgae growth/processing aimed at antiinflammatory/antioxidant production	Luigi Marra ¹ , Luigi D'Elia ² , Francesca Raganati ¹ , Antonino Pollio ³ , Antonio Marzocchella ¹ ¹ Università degli studi di Napoli Federico II, DICMaPI, Piazzale Tecchio 80125, Napoli, Italia ² Loop S.r.l., V.le A. Gramsci 17/B, 80122, Napoli, Italy ³ Università degli studi di Napoli Federico II, Dipartimento di Biologia, Via Cintia, 80126, Napoli, Italia (Industrial biotechnology)
12.00-12.15	Investigations on extracts of indigenous spontaneous flora of <i>Galium verum</i> L. and their potential as a bioactive ingredients source for dermatocosmetic products	Delia Turcov , Daniela Șuteu, Simona Barna "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
12.15-12.30	Highly sensitive electrochemical sensor based on poly (3,4-ethylenedioxythiophene) and Pt nanoparticles for biologically active compounds determination	Sorina-Alexandra Leau ^{1,2} , Cecilia Lete ¹ , Stelian Lupu ² ¹ Institute of Physical Chemistry "Ilie Murgulescu" of the Romanian Academy, Electrochemistry-Corrosion Department, 202 Splaiul Independentei, 022328 Bucharest, Romania ² University Politehnica of Bucharest, Faculty of Chemical Engineering and Biotechnologies, Department of Analytical Chemistry and Environmental Engineering, 1-7 Polizu Gh. Street, 011061 Bucharest, Romania (Chemical engineering)
12.30-12.45	Comparative studies of physical and thermal properties of cooking oils and used cooking oils	Paula Simionescu , Gabriela Lisa "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
12.45-14.00	Lunch	



Parallel Session 3.1: Wednesday, 18 May, 11.15-12.45

Section 3. Civil engineering and installations

Chairperson: Assoc. Prof. dr. Petru Mihai

Time	Oral presentation	Authors
11.15-11.30	Bio based leveling screed - an eco - sustainable solution for construction industry	Laurentiu Adam , Dorina Nicolina Isopescu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
11.30-11.45	Experimental study on the determination of hydrogen permeability of steel distribution pipes	Ludovic Călcîi , Ladislau Radermacher, Andrei Burlacu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
11.45-12.00	Stress analysis of masonry walls in case of underpinning consolidation works	Eduard Gabriel Voicu , Iancu-Bogdan Teodoru "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
12.00-12.15	Compression resistance of concrete	Alexandra Pamfil , Petru Mihai "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
12.15-12.30	Numerical analysis on thermal comfort in rooms using convective heating and radiant heating terminals	Stefănică-Eliza Vizitiu , Andrei Burlacu, Robert Ștefan Vizitiu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
12.30-12.45	Study on the moisture conditions assessment in the rehabilitated envelope of buildings prefabricated concrete panels	Sergiu George Petre , Dorina Nicolina Isopescu, Marian Pruteanu, Robert Ștefan Vizitiu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
12.45-14.00	Lunch	



Parallel Session 4.1: Wednesday, 18 May, 11.15-12.45

Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology

Chairperson: Prof.dr. Gheorghe Grigoraș

Time	Oral presentation	Authors
11.15-11.30	The impact of distributed generation on the voltage profile	Cosmin-Florin Acsinte , Florin-Constantin Baiceanu, Ciprian-Mircea Nemeș "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
11.30-11.45	Equivalence of the Romanian terminology with the European terminology regarding the power reserves necessary to ensure the frequency-power regulation in the electricity transmission systems	Ionuț Ilișescu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
11.45-12.00	Modern approaches for the Optimal Power Flow problem in distribution networks	Ovidiu-Cătălin Carp , Mihai Gavrițaș "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
12.00-12.15	Energy efficiency for buildings and its role in reducing climate change	Mihaela Nastase , Mihai Gavrițaș "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
12.15-12.30	Reliability assessment using Monte Carlo Method	Mihai-Alexandru Ghidu , Ciprian Nemes "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
12.30-12.45	Load models for power and energy loss assessment in electric distribution networks with probabilistic methods	Nicușor Constantin Toma , Mihai Gavrițaș "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
12.40-14.00	Lunch	



Parallel Session 1.2: Wednesday, 18 May, 14.00-15.30

Section 1. Computers and information technology; Systems engineering

Chairperson: Prof.dr. Marius Kloetzer

Time	Oral presentation	Authors
14.00-14.15	Development of a programmable system used for the preparation of a mixture of flammable/explosive gases	Adrian Bogdan Simon-Marinica , Nicolae-Ioan Vlasin, Gheorghe-Daniel Florea, Zoltan Vass National Institute for Research & Development in Mine Safety and Protection to Explosion – INSEMEX Petroșani, 32-34 G-ral. V. Milea Street, Romania (Systems engineering)
14.15-14.30	A brief overview of Federated Learning - a new perspective on privacy character	Iuliana-Alexandra Lipovanu , Carlos-Mihai Pascal "Gheorghe Asachi" Technical University of Iasi, Faculty of Automatic Control and Computer Engineering, 27 Mangeron Blvd., 700050, Iasi, Romania (Systems engineering)
14.30-14.45	Comparison of CNN architectures for Visual Servoing Systems	Adrian-Paul Botezatu , Teodor Sauciuc, Lavinia Ferariu, Adrian Burlacu "Gheorghe Asachi" Technical University of Iasi, Faculty of Automatic Control and Computer Engineering, 27 Mangeron Blvd., 700050, Iasi, Romania (Systems engineering)
14.45-15.00	Comparative analysis between 4G LTE and 5G NR: An evaluation of cellular communications for V2X technology	Razvan-Gabriel Lazar , Constantin-Florin Căruntu "Gheorghe Asachi" Technical University of Iasi, Faculty of Automatic Control and Computer Engineering, 27 Mangeron Blvd., 700050, Iasi, Romania (Systems engineering)
15.00-15.15	CNN-based Semantic Segmentation for Detecting the Segments of a Robot	Teodor Sauciuc , Paul Botezatu, Lavinia Ferariu, Adrian Burlacu "Gheorghe Asachi" Technical University of Iasi, Faculty of Automatic Control and Computer Engineering, 27 Mangeron Blvd., 700050, Iasi, Romania (Systems engineering)
15.15-15.30	Data fusion techniques based on interconnected vehicle sensors	Paulina-Larisa Ceornea , Constantin-Florin Caruntu "Gheorghe Asachi" Technical University of Iasi, Faculty of Automatic Control and Computer Engineering, 27 Mangeron Blvd., 700050, Iasi, Romania (Systems engineering)
15.30-16.00	Coffee Break	



Parallel Session 2.2: Wednesday, 18 May, 14.00-15.30

Section 2. Chemistry; Chemical engineering; Environmental engineering

Chairperson: Prof.dr. Silvia Curteanu

Time	Oral presentation	Authors
14.00-14.15	Effect of pH on the H-B-E fermentation by <i>Clostridium carboxidivorans</i> carried out in a continuous stirred tank bioreactor	Fabiana Lanzillo , Francesca Raganati, Antonio Marzocchella Università degli studi di Napoli Federico II, Piazzale Tecchio 80125, Napoli, Italia (Industrial biotechnology)
14.15-14.30	The use of thermogravimetric analysis in the study of the sublimation process	Cerasela-Ionela Cleminte , Gabriela Lisa "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical Engineering and EnvirBlvd., 700050, Iasi, Romania (Chemical engineering)
14.30-14.45	A comparative study on the efficiency of biopesticides from spontaneous flora against deposit pests	Gabriel Mihăiță Daraban ¹ , Marinela Bădeanu ² , Daniela Șuteu ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Chemical Engineering, 73 Prof. Mangeron Blvd., 700050, Iasi, Romania ² "Ion Ionescu de la Brad" University of Life Sciences of Iasi, Faculty of Horticulture, Department of Horticultural Technologies, 3 Mihail Sadoveanu Alley, 700490, Iasi, Romania (Chemical engineering)
14.45-15.00	Diffusion models for chitosan release from different types of matrixes	Manuela Alexandru , Ioan Mamăligă "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Chemical Engineering, 73 Prof. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
15.00-15.15	Methods for magnesium adsorbent synthesis for Congo Red removal	Luisa-Maria Trifas , Maria Harja "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Chemical Engineering, 73 Prof. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
15.15-15.30	Biosorbents based on the vegetal residual biomass for the recovery of chemical pollutant from aqueous media	Alexandra Tanasă , Daniela Șuteu "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 Prof. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
15.30-16.00	Coffee Break	



Parallel Session 3.2: Wednesday, 18 May, 14.00-15.30

Section 3. Civil engineering and installations

Chairperson: Assoc. Prof. dr. Petru Mihai

Time	Oral presentation	Authors
14.00-14.15	Tackling sustainability in today's building climate	Cosmin-Ionuț Gosav "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
14.15-14.30	Self compacting concrete with brick dust and fly ash	Vlad Panaite "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
14.30-14.45	Quantification and reduction of shear modulus uncertainties using modern bender elements	Zakaria Owusu-Yeboah , Andreea-Vasilica Dascalu, Mircea Aniculaesi "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
14.45-15.00	Behavioral analysis of high density polyethylene gas distribution pipes under load	Ludovic Călcîi , Ladislau Radermacher, Andrei Burlacu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
15.00-15.15	Geotechnical behavior of an expansive soil improved with waste tyre crumb rubber determined by laboratory tests	Stefan-Dan Sofron , Mircea Aniculaesi, Florin Bejan "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
15.15-15.30	The importance of architectural-structural conformation of reinforced concrete frame buildings in the preliminary seismic design stage	Ion Sococol , Petru Mihai, Tudor-Cristian Petrescu, Bogdan-Ionel Luca "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
15.30-16.00	Coffee Break	



Parallel Session 4.2: Wednesday, 18 May, 14.00-15.30

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Section 2. Chemistry; Chemical engineering; Environmental engineering

Chairperson: Prof.dr. Leandru-Gheorghe Bujoreanu

Time	Oral presentation	Authors
14.00-14.15	Methodology for design, characterization, and convective analysis through a double-tube heat exchanger for nanofluids	Uxía Calviño¹ , José Fernández-Seara ² , Luis Lugo ¹ ¹ CINBIO, Universidade de Vigo, Grupo GAME, Departamento de Física Aplicada, 36310 Vigo, Spain ² Área de Máquinas e Motores Térmicos, Escola de Enxeñaría Industrial, Universidade de Vigo, 36310 Vigo, Spain (Materials engineering)
14.15-14.30	Investigation of biodegradability properties for FeMnSi alloy	Ana-Maria Roman , Nicanor Cimpoesu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
14.30-14.45	The knowledge of mortars with micro and nanometric inserts in the field of historical buildings restoration	Elena Basalic^{1,2} , Carmen Nejneru ¹ , Ioana-Sorina Entuc ² , Nicanor Cimpoesu ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, ² "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Construction and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
14.45-15.00	In vitro corrosion behavior and mechanical properties of Zn ₃ Mg _x Y alloy in simulated body fluid	Cătălin Panaghie , Nicanor Cimpoesu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
15.00-15.15	Quantitative study of the melt degradability of modified and unmodified renewable polyesters	Mihail Dragne^{1,2,3} , Florentina Miu ³ , Maria Ciuca ² , Doina Dimonie ^{1,2} ¹ University Politehnica of Bucharest, Doctoral school "Applied Chemistry and Materials Science", 313 Splaiul Independentei, Bucharest, Romania ² National Institute for Research and Development in Chemistry and Petrochemistry, 202 Splaiul Independentei Street, Bucharest, Romania ³ PROMATERIS SA, Bucharest-Targoviste Street, no.1, Buftea, Romania (Chemical engineering)



15.15-15.30	The antimicrobial action of nanoemulsions based on essential oils	Oana Cucoveică , Leonard Ionuț Atanase "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
-------------	---	--

15.30-16.00	Coffee Break	
-------------	--------------	--

Parallel Session 1.3: Wednesday, 18 May, 16.00-17.30

Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology

Chairperson: Assoc.Prof.dr. Dan-Marius Dobrea

Time	Oral presentation	Authors
16.00-16.15	Discrimination of focal and non-focal epileptic EEG signals using different types of classifiers	Mădălina-Giorgiana Murariu , Daniela Tărniceriu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electronics, Telecommunications and Information Technology, 11A Carol I Blvd., 700506, Iasi, Romania (Electronic engineering, telecommunications and information technology)
16.15-16.30	A study regarding compatibility between MFCN operating in C-band and Radio Altimeters	Georgian Grigorel , Ion Bogdan "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electronics, Telecommunications and Information Technology, 11A Carol I Blvd., 700506, Iasi, Romania (Electronic engineering, telecommunications and information technology)
16.30-16.45	Positioning key elements for increasing localization precision of the VRUs in 5G NR environments	Andreea V. Militaru ¹ , Ion Bogdan ¹ , Ciprian R. Comsa ¹ , Constantin F. Caruntu ² ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electronics, Telecommunications and Information Technology, 11A Carol I Blvd., 700506, Iasi, Romania ² "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Automatic Control and Computer Engineering, 27 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electronic engineering, telecommunications and information technology)
16.45-17.00	The concept of smart city - image detection using embedded computer boards	Marius-Emanuel Obreja "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electronics, Telecommunications and Information Technology, 11A Carol I Blvd., 700506, Iasi, Romania (Electronic engineering, telecommunications and information technology)



17.00-17.15	Advanced telco architectures for NetApps onboarding	Marius Iordache , Cristian Patachia, Ion Bogdan "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electronics, Telecommunications and Information Technology, 11A Carol I Blvd., 700506, Iasi, Romania (Electronic engineering, telecommunications and information technology)
17.15-17.30	Experimentation facility to evaluate 5g-native NetApps	Cristian Patachia-Sultanoiu , Marius Iordache, Ion Bogdan "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electronics, Telecommunications and Information Technology, 11A Carol I Blvd., 700506, Iasi, Romania (Electronic engineering, telecommunications and information technology)

Parallel Session 2.3: Wednesday, 18 May, 16.00-17.45

Section 2. Chemistry; Chemical engineering; Environmental engineering

Chairperson: Assoc.Prof.dr. Brîndușa-Mihaela Slușer

Time	Oral presentation	Authors
16.00-16.15	Removal of chlorophenols from aqueous solutions by photocatalytic oxidation	Giovanina Iuliana Lupu , Liliana Bobirică, Constantin Bobirică, Cristina Orbeci University Politehnica of Bucharest, Faculty of Chemical Engineering and Biotechnologies, Department of Analytical Chemistry and Environmental Engineering, 1-7 Gheorghe Polizu, 011061 Bucharest Romania (Environmental engineering)
16.15-16.30	Comparative assessment of major and trace elements in some mineral waters from Slănic Moldova	Lavinia Misăilă ^{1,2} , Narcis Bârsan ¹ , Dumitra Răducănu ³ , Cristian Radu ⁴ , Luminița Grosu ¹ , Oana-Irina Patriciu ¹ , Lucian Gavrilă ¹ , Adriana-Luminița Fînaru ¹ ¹ "Vasile Alecsandri" University of Bacău, Faculty of Engineering, 156 Calea Marasesti, 600115, Bacau ² "Dimitrie Ghika" Technical College Comanesti, 1, Liceului Street, 605200, Comanesti, Romania ³ "Vasile Alecsandri" University of Bacău, Faculty of Science, 156 Calea Marasesti, 600115, Bacau, Romania ⁴ Bacau Water Quality Laboratory, 1, Cuza Voda Street, 600274, Bacau, Romania (Environmental engineering)
16.30-16.45	Removal of metal ions of Cu(II), Co(II) and Zn(II) from aqueous media using biochar obtained from algae biomass	Alina-Alexandra Ciobanu ¹ , Gabriela Vasile ² , Laura Bulgariu ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		Engineering and Environmental Protection, 73 Prof. D: Mangeron Blvd., 700050, Iasi, Romania ² National Research and Development Institute for Industrial Ecology ECOIND, Bucharest, Romania (Environmental engineering)
16.45-17.00	Application of different types of residual biomass for retaining of some emerging pollutants from industrial effluents	Crinuta Larisa Ortovan ¹ , Daniela Suteu ² , Irina Volf ¹ , Carmen Zaharia ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73A Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Department of Organic, Biochemical and Food Engineering, 3A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Environmental engineering)
17.00-17.15	Economic and environmental cost analysis of food waste recovery alternatives	Ersilia Coșbuc ¹ , Elena-Diana Ungureanu-Comanita ¹ , Maria Gavrilescu ^{1,2} ¹ "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. Mangeron Bd., 700050, Iasi, Romania ² Academy of Romanian Scientists, 3 Ilfov Street, 050044, Bucharest, Romania (Environmental engineering)

Parallel Session 3.3: Wednesday, 18 May, 16.00-18.00

Section 3. Civil engineering and installations

Chairperson: Assoc.Prof.dr. Petru Mihai

Time	Oral presentation	Authors
16.00-16.15	Dangers of heights	Mircea Sărăcut University of Petrosani, 20 Universitatii Street, Petrosani, Romania (Industrial engineering)
16.15-16.30	Studies and research on the phenomenon of hydrodynamic erosion in riverbeds	Petru-Daniel Brănianu , Mihail Luca "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Hydrotechnics, Geodesy and Environmental Engineering, 65 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



16.30-16.45	Drainage density mapping using ArcGIS in the Liwiec watershed	Paula Stoica , Anca Zaborilă, Marius Telișcă, Ion Giurma "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Hydrotechnics, Geodesy and Environmental Engineering, 65 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
16.45-17.00	Studies on modern methods of creating 3D models for buildings	Iustina Gabriela Ignat Stefan , Mihail Luca "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Hydrotechnics, Geodesy and Environmental Engineering, 65 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
17.00-17.15	Research and case studies on water losses in distribution networks and their effect on the groundwater	Alexandru Postavaru , Andrei Pavaleanu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Hydrotechnics, Geodesy and Environmental Engineering, 65 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
17.15-17.30	Monitoring of wastewater parameters in treatment plants: case study – WWTP of Iasi City	Costel-Cătălin Prăjanu , Florian Stătescu, Daniel Toma, Cristina-Mihaela Vîrlan Toma "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Hydrotechnics, Geodesy and Environmental Engineering, 65 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
17.30-17.45	Using of HEC-RAS model for hydraulic analysis of a river Bahlueț	Gabriela Damian Dorin "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty Hydrotechnics, Geodesy and Environmental Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Environmental engineering)
17.45-18.00	Methods of adjustments the cost in constructions	Cornel Adrian Ciurusniuc , Irina Ichimov Ciurusniuc "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Installations, 1 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)

Parallel Session 4.3: Wednesday, 18 May, 16.00-17.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Ioan Doroftei

Time	Oral presentation	Authors
16.00-16.15	Selection and evaluation of technologies in machine building	Vadim Iatchevici Technical University of Moldova, Faculty of Mechanical Engineering,



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		11 Studentilor Street, Chisinau, Moldova (Mechanical engineering)
16.15-16.30	Considerations on classification of the main components of the vehicles by their vibroacoustic fingerprint	Nicolae-Adrian Nițu , Carmen Bujoreanu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
16.30-16.45	Injection high-pressure pumps evolution and wear analysis methods	Răzvan-Constantin Iordache , Carmen Bujoreanu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
16.45-17.00	A review on tribological behavior of mechanical components obtained by additive manufacturing methods	Gheorghe Macovei , Viorel Paleu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
17.00-17.15	A review on treating tribological problems with fractals	Alexandru Lăpușteanu , Viorel Paleu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
17.15-17.30	Life cycle analyses for solar thermal collectors	Cristina Belecciu ¹ , Ana-Georgiana Lupu ¹ , Mohammed Sallah ² , Aristotel Popescu ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² Faculty of Science, Mansoura University, Mansoura, Egypt (Mechanical engineering)
17.30-17.45	Cylindrical roller bearings with optimized profile taking into account the material structure and operating temperature	Andrei Popescu , Gabriel Popescu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)



Thursday, 19 May, 2022

PLENARY SESSION 2

Chairperson: Prof.dr. Maria Gavrilescu

9.30-10.10	The Smart Textiles, from Tradition to Artificial Intelligence	Prof.dr. Dominique Adolphe University of Haute-Alsace (UHA), Ecole Nationale Supérieure d'Ingénieurs Sud Alsace (ENSISA), Mulhouse, France
10.10-10.50	Marine Renewable Energy and the Transition to a Low Carbon Society	Prof.dr. Eugen Victor Cristian Rusu "Dunarea de Jos" University of Galati, Romania; Romanian Academy
10.50-11.15	Coffee Break	

Parallel Session 1.4: Thursday, 19 May, 11.15-12.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Aristotel Popescu

Time	Oral presentation	Authors
11.15-11.30	Annealing effect of 3D printed composites	Sara Valvez , Paulo Reis University of Coimbra, Department of Mechanical Engineering, Polo 2, Pinhal de Marrocos, 3030-194 Coimbra, Portugal (Mechanical engineering)
11.30-11.45	A modified weigh-in-motion sensor for urban traffic monitoring	Marius Mihăilă , Igor Blanari, Ciprian-Ionuț Morăraș, Paul Barsanescu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
11.45-12.00	Vehicles loads influence on box girders bridges	Adi-Mihăiță Velniciuc , Carmen Bujoreanu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
12.00-12.15	Theoretical model for photovoltaic panel thermal analysis	Ana-Georgiana Lupu ¹ , Evangelos Hristoforou ² , Gabriel-Dumitru Tcaciuc ¹ , Aristotel Popescu ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² National Technical University of Athens, Greece



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		(Mechanical engineering)
12.15-12.30	Comparative study of building integrated systems, photovoltaic (BIPVs) vs. photovoltaic-thermal (BIPV-T)	Alexandru Radu¹ , Konstantinos Papakostas ² , Ana-Georgiana Lupu ¹ , Aristotel Popescu ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² School of Mechanical Engineering, Aristotle University of Thessaloniki, Greece (Mechanical engineering)
12.30-12.45	Comparison between Prandtl's mixing length model and DNS data for a channel flow up to $Re_Z = 5200$	Gabriel-Dumitru Tcaciuc¹ , Ahmed Elgarayhi ² , Ana-Georgiana Lupu ¹ , Aristotel Popescu ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² Mansoura University, Faculty of Science, Mansoura, Egypt (Mechanical engineering)
12.45-14.00	Lunch	

Parallel Session 2.4: Thursday, 19 May, 11.15-12.45

Section 2. Chemistry; Chemical engineering; Environmental engineering

Chairperson: Prof.dr. Laura Bulgariu

Time	Oral presentation	Authors
11.15-11.30	Research on the dispersion of the concentration of volatile organic compounds generated by industrial activities in the vicinity of residential areas	Vlad-Alexandru Lăutaru , Romeo Hrișcan, Marius Kovacs National Institute for Research & Development in Mine Safety and Protection to Explosion Petroșani, 32-34 G-ral Vasile Milea Street, Petroșani, România (Environmental engineering)
11.30-11.45	Walnut (<i>Juglans regia</i> L.) - present and perspectives on phytosanitary activity	Anca Sandu Bălan Tăbăcariu^{1,2} , Oana-Irina Patriciu ¹ , Ioana-Adriana Ștefănescu ¹ , Irina-Loredana Ifrim ¹ , Adriana-Luminița Fînaru ¹ ¹ „Vasile Alecsandri” University of Bacău, Faculty of Engineering, 156 Calea Marasesti, 600115, Bacău ² „Ștefan Luchian” Secondary School, 8 Zorilor Street, 605400, Moinesti, Romania (Environmental engineering)
11.45-12.00	Application of Response Surface Method for optimization of Eriochrome Black T removal by adsorption	Loredana Pintilie , Andreea-Ema Sava, Elena Niculina Drăgoi, Carmen Teodosiu “Gheorghe Asachi” Technical University of Iasi, “Cristofor Simionescu” Faculty of Chemical Engineering and Environmental Protection, 73 Prof. D. Mangeron Blvd., 700050 Iasi, Romania (Environmental engineering)



12.00-12.15	Natural carriers for bacterial immobilization used in bioremediation	Emanuel Gheorghită Armanu , Irina Volf "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Environmental engineering)
12.15-12.30	Studies on the behavior of <i>Brassica napus</i> l. cultivated on cadmium polluted soil	Mariana Minuț ¹ , Mihaela Roșca ² , Petronela Cozma ¹ , Mariana Diaconu ¹ , Maria Gavrilăscu ^{1,3} ¹ "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. D. Mangeron Blvd., 700050 Iasi, Romania ² "Ion Ionescu de la Brad" University of Life Sciences, Faculty of Horticulture, Department of Horticultural Technologies, 3 Mihail Sadoveanu Alley, 700490 Iasi, Romania ³ Academy of Romanian Scientists, 3 Ilfov Street, 050044 Bucharest, Romania (Environmental engineering)
12.30-12.45	Removal of Pb(II) ions from aqueous media by adsorption using PET fibers functionalized with Orange G dye as adsorbent	Codruț-Ștefan Ciobanu , Ramona Copae, Laura Bulgariu "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. D. Mangeron Blvd., 700050 Iasi, Romania (Environmental engineering)
14.00-15.00	Lunch	

Parallel Session 3.4: Thursday, 19 May, 11.15-12.45

Section 3. Civil engineering and installations

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Carmen Bujoreanu

Time	Oral presentation	Authors
11.15-11.30	Static and dynamic friction coefficient in low loads and sliding speed conditions	Cezara-Măriuca Opreșan , Bogdan Chiriac, Ana Tufescu, Dumitru N. Olaru "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		(Mechanical engineering)
11.30-11.45	Film thickness in micro ball bearing grease lubricated	Denis Cojocaru , Gelu Ianuș, Vlad Cârlescu, Dumitru N. Olaru "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
11.45-12.00	Towards river longitudinal connectivity practices within the Small Hydropower Plants Sector in Europe	Alexandru Moldoveanu ^{1,2} , Daniela Popescu ² ¹ National Institute of Hydrology and Water Management, Romania, 97 E Soseaua Bucuresti – Ploiesti, 013686, Bucharest, Romania ² "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Machines Manufacturing and Industrial Management, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
12.00-12.15	Design solutions for reliable and safe large size ball valves	Laurențiu-Ioan Ivancu , Daniela Popescu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 61-63 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
12.15-12.30	Friction behaviour between textiles and glass in low loads and sliding speed conditions	Bogdan Chiriac , Cezara-Măriuca Oprișan, Ana Tufescu, Dumitru N. Olaru "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 61-63 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
12.30-12.45	Numerical modelling of the sliding speeds and friction torque while considering the centrifugal effects in angular contact ball bearings	Andrei Zamă , Viorel Paleu, Dumitru N. Olaru "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanical Engineering, 61-63 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Mechanical engineering)
12.45-14.00	Lunch	

Parallel Session 4.4: Thursday, 19 May, 11.15-12.45

Section 2. Chemistry; Chemical engineering; Environmental engineering

Section 3. Civil engineering and installations

Chairperson: Prof.dr. Gabriela Carja

Time	Oral presentation	Authors
11.15-11.30	The effect of temperature on the preparation of hydrocalumite under microwave irradiation from aluminum saline slag	Alejandro Jiménez, Miguel Ángel Vicente Rives "GIR – QUESCAT, Departamento de Química Inorgánica, Universidad de Salamanca, E – 37008, Spain (Chemical Engineering)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



11.30-11.45	Reference values and reference correlations for the thermal conductivity of fluids and solids	Danai Velliadou , Marc J. Assael Aristotle University of Thessaloniki, School of Engineering, Department of Chemical Engineering, 54636, Thessaloniki, Greece (Chemical Engineering)
11.45-12.00	Maleated olefinic homopolymers and copolymers as interface agents for new starch-based compounds	Alina Mustătea ^{1,2} , Roxana Trușcă ¹ , Raluca Gabor ³ , Cristian Nicolae ³ , Ovidiu Dima ³ , Maria Ciucă ³ , Doina Dimonie ^{1,3} ¹ University Politehnica of Bucharest, Doctoral school "Applied Chemistry and Materials Science", 313 Splaiul Independentei Street, Bucharest, Romania ² PROMATERIS SA, Bucharest-Targoviste Street, no.1, Buftea, Romania ³ National Institute for Research and Development in Chemistry and Petrochemistry, 202 Splaiul Independentei Street, Bucharest, Romania (Chemical engineering)
12.00-12.15	Research on the degradation of the evacuators from earth dams under the effect of climate change	Violeta Dominte , Mihail Luca "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Hydrotechnics, Geodesy and Environmental Engineering, 65 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
12.15-12.30	Opportunity to apply GNSS technology to measure parameters of hydrotechnical constructions	Ioana Agapie Mereuță , Mihail Luca, Paul Marian Gherasim "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Hydrotechnics, Geodesy and Environmental Engineering, 65 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
12.30-12.45	Studies on the hydromorphological evolution of watercourses	Romanescu Petronel Ionuț , Mihail Luca "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Hydrotechnics, Geodesy and Environmental Engineering, 65 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Civil engineering and installations)
14.00-15.00	Lunch	



Parallel Session 1.5: Thursday, 19 May, 14.00-15.30

Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology

Chairperson: Prof.dr. Mihai Gavrițaș

Time	Oral presentation	Authors
14.00-14.15	ABS detection using neural network algorithm applied on naturalistic vehicle parameters dataset	George Maties , Cristian Foșalău "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
14.15-14.30	Aspects regarding the use of TCSC devices in power grids	Marian Atănăsoaei , Maricel Adam, Mihai Andrusca, Alin Dragomir, Cosmin Nistor Deac "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
14.30-14.45	Wearable device for measurement of exposure to artificial light	Cristian Umbrărescu , Cristian-Gyozo Haba "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
14.45-15.00	Data acquisition system for advanced medical devices	Mădălina-Ancuța Pintilei "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
15.00-15.15	Applications of robotic and mechatronic systems to neurorehabilitation	Elena Nechifor , Sorin-George Nechifor, Marian-Silviu Poboroniuc "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
15.15-15.30	Modeling and control of horizontal axis wind turbines	Aida Baltag "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
15.30-16.00	Coffee Break	



Parallel Session 2.5: Thursday, 19 May, 14.00-15.30

Section 2. Chemistry; Chemical engineering; Environmental engineering

Chairperson: Assoc.Prof.dr. Carmen Zaharia

Time	Oral presentation	Authors
14.00-14.15	Carbon nano/microstructures prepared through pyrolytic processing of biomass waste	Loredana Stan , Irina Volf "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. D. Mangeron Blvd., 700050 Iasi, Romania (Environmental engineering)
14.15-14.30	Experimental studies on phytoremediation of soils polluted with lead using agricultural plants	Ionela Cătălina Vasilachi ¹ , Maria Gavrilăscu ^{1,2} "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. D. Mangeron Blvd., 700050 Iasi, Romania (Environmental engineering)
14.30-14.45	Optimization of process parameters for retention of Cd(II) ions adsorption from aqueous solutions on clay materials	Bianca Azanfire , Laura Bulgariu "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. D. Mangeron Blvd., 700050 Iasi, Romania (Environmental engineering)
14.45-15.00	Studies on the biodegradation of some emerging pharmaceutical pollutants from aqueous fluxes	Maria Paiu ¹ , Raluca-Maria Hlihor ^{1,2} , Lidia Favier ³ , Maria Gavrilăscu ^{1,4} ¹ "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. Mangeron Bd., 700050, Iasi, Romania ² "Ion Ionescu de la Brad" University of Life Sciences, Faculty of Horticulture, Department of Horticultural Technologies, Iasi, 3 Mihail Sadoveanu Alley, 700490, Iasi, Romania ³ Institute of Chemical Science of Rennes, UMR, CNRS 6226, Chemical Engineering School of Rennes (ENSCR), Department of Chemistry and Engineering of Processes (CIP), 11 Allée de Beaulieu, CS 50837, 35708, Rennes Cedex 7, France ⁴ Academy of Romanian Scientists, 3 Ilfov Street, 050044, Bucharest, Romania (Environmental engineering)



15.00-15.15	Air quality monitoring in the last decade in Romania: dynamic and statistics	Ioana Madalina Tănasă , Brindușa Slușer 1"Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. Mangeron Bd., 700050, Iasi, Romania (Environmental engineering)
15.15-15.30	Optimization of experimental parameters for biosorption of Zn(II) ions from aqueous solutions using <i>Saccharomyces cerevisiae</i>	Evghenia Savastru ¹ , Cătălin-Ioan Zamfir ² , Laura Bulgariu ¹ 1"Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Environmental Engineering and Management, 73 Prof. Mangeron Bd., 700050, Iasi ² Romanian Academy, Iași Branch, Oenology Research Centre, Aleea Mihail Sadoveanu No. 9, 700490, Iași, Romania (Environmental engineering)
15.30-16.00	Coffee Break	

Parallel Session 3.5: Thursday, 19 May, 14.00-15.30

Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology

Chairperson: Prof.dr. Cristian Foșalău

Time	Oral presentation	Authors
14.00-14.15	Towards reliability and safety improvement of measurement and control processes on ships: implementation of wireless HART protocol	Mostafa Abotaleb ¹ , Janusz Mindykowski ¹ , Boleslaw Dudojc ¹ , Romuald Masnicki ² ¹ Gdynia Maritime University, Doctoral School, Morska 81-87, 81-225 Gdynia, Poland ² Gdynia Maritime University, Faculty of Electrical Engineering, Morska 81-87, 81-225 Gdynia, Poland (Electrical engineering)
14.15-14.30	The intelligent measurement system for photovoltaic prosumers	Marius-Lucian Diaconu , Mihai Gavrilaș "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
14.30-14.45	A energy storage management approach considering the prosumer integration in microgrids	Marius-Andrei Cibotărică , Gavrilaș Mihai "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)



14.45-15.00	An optimization-based analysis to evaluate the impact of the wind farms on the operation of the electric networks	Bogdan Livadariu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
15.00-15.15	Scenarios-based analysis to evaluate impact of prosumers on the operation of the low voltage electric distribution networks	Vasilica Dandea "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
15.15-15.30	Discovering the patterns of operating regimes by K-means clustering-based data mining for hydropower plants	Răzvan Gârbea "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Energy engineering)
15.39-16.00	Coffee Break	

Parallel Session 4.5: Thursday, 19 May, 14.00-15.30

Section 2. Chemistry; Chemical engineering; Environmental engineering

Chairperson: Prof.dr. Ioan Mămăligă

Time	Oral presentation	Authors
14.00-14.15	The dependence of the racemic nucleation efficiency on the chemical characteristics of the PDLA macromolecules	Silvia Mathe ^{1,2,3} , Doina Dimonie ^{1,2} , Maria Ciucă ² ¹ Doctoral School "Applied Chemistry and Materials Science", University Politehnica Bucharest, 1-7 Gheorghe Polizu, Bucharest, 011061, Romania ² National Institute for Research and Development in Chemistry and Petrochemistry, 202 Splaiul Independentei, Bucharest 060021, Romania ³ Renault Tehnologie Roumanie, Materials Engineering Department, 3G Preciziei, Bucharest 62202, Romania (Chemical engineering)
14.15-14.30	Development of a smart drug delivery mesoporous silica systems for diabetes mellitus	Mousa Sha'at ¹ , Maria Ignat ^{2,3} , Alexandra Bujor ¹ , Adrian Florin Șpac ¹ , Lăcrămioara Ochiuz ¹ ¹ "Grigore T. Popa" University of Medicine and Pharmacy Iași, Faculty of Pharmacy, 16 Universității Street, 700115, Iasi, Romania ² "Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, 11 Carol I Blvd., Iasi, 700506, Romania ³ "Petru Poni" Institute of Macromolecular Chemistry, 41A Grigore Ghica Voda Street, Iasi 700487, Romania (Chemical engineering)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



14.30-14.45	Extraction techniques and spectrophotometric studies on <i>Datura innoxia</i> dry biomass	Georgiana Mardare Bălușescu ¹ , Liliana Lazăr ² , Teodor Măluțan ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Natural and Synthetic Polymers, 73 Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, Department of Chemical Engineering, 73 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
14.45-15.00	Tailoring the structural properties of ZnLDH substituted with Ga by using XRD and TG/DTG analysis	Eugenia Corina Ignat , Gabriela Carja "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
15.00-15.15	Achievements and limits on the chemical characterization by non-destructive techniques of medieval silver coins on the territory of Moldova	Codrin Lăcătușu ^{1,2} , Cezar Doru Radu ² ¹ Center for Research and Restoration-Conservation of Cultural Heritage "Moldova" National Museum Complex, 1 Stefan cel Mare and Sfânt Square, 700028, Iasi, Romania ² "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
15.15-15.30	Double-layered hydroxides (LDH) and AgNP / LDH nanostructured assemblies: synthesis, physico-chemical properties studies and cytotoxicity tests	Loredana Andreea Gavrilă , Gabriela Carja "Gheorghe Asachi" Technical University of Iasi, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
16.45-17.00	Coffee Break	

Parallel Session 1.6: Thursday, 19 May, 16.00-17.30

Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology

Chairperson: Prof.dr. Cristian Nemeș

Time	Oral presentation	Authors
16.00-16.15	Solution for pumps control in irrigations system using S7-1200 PLC	Georgel Gabor , Gheorghe Livint "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
16.15-16.30	In-depth critical review on importance of optimal design parametrization of CE vs. WE dimensional ratio	Tudor-Alexandru Filip , Ina Turcan, Vlad Andrei Scarlatache, Marius Andrei Olariu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
16.30-16.45	Non-intrusive monitoring system of low voltage components from power circuit breakers	Ionuț Ovidiu Rusu , Maricel Adam, Mihai Andrușcă "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
16.45-17.00	Contributions in the field of methods of assessment of the muscles with reduced dynamics- pelvic floor muscle	Alina Roxana Miron , Marian-Silviu Poboroniuc "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
17.00-17.15	Contributions to a hybrid FES&Mechatronic system for hand rehabilitation in stroke people	Radu Ionașcu , Andrei-Iulian Roman, Dănuț-Constantin Irimia, Marian-Silviu Poboroniuc "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
17.15-17.30	Contributions to brain-computer interface based control of humanoid robots	Alexandru Mitocaru , Danut Constantin Irimia, Alina Baciu, Marian Silviu Poboroniuc "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)

Parallel Session 2.6: Thursday, 19 May, 16.00-17.15

Section 2. Chemistry; Chemical engineering; Environmental engineering

Chairperson: Assoc.Prof.dr. Cezar Catrinescu

Time	Oral presentation	Authors
16.00-16.15	Drug-loaded electrospun nanofibrous membrane with potential antimicrobial	Codrin-Paul Fuiuogă "Gheorghe Asachi" Technical University, "Cristofor Simionescu" Faculty of Chemical Engineering and



		Environmental Protection, 73 D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
16.15-16.30	Chitosan based thermosetting resins	Iolanda Fusteș-Dămoc ^{1,2} , Teodor Măluțan ² Alice Mija ¹ ¹ Laboratoire ICN, Université Côte d'Azur, 28 Av. Valrose, 06100 Nice, France ² "Gheorghe Asachi" Technical University, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
16.30-16.45	Diffusion controlled release from a polymeric matrix	Alexandru-Vasilică Iosub "Gheorghe Asachi" Technical University, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
16.45-17.00	Tailoring nanostructures of layered double hydroxides for specific applications in nanomedicine	Theodor Bahnariu , Gabriela Carja "Gheorghe Asachi" Technical University, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)
17.00-17.15	Windows waste glass capitalization for obtaining materials with imposed properties	Mihaela Fanache Vasiliu , Liliana Lazar, Maria Harja "Gheorghe Asachi" Technical University, "Cristofor Simionescu" Faculty of Chemical Engineering and Environmental Protection, 73 D. Mangeron Blvd., 700050, Iasi, Romania (Chemical engineering)

Parallel Session 3.6: Thursday, 19 May, 16.00-17.45

**Section 4. Electrical engineering; Energy engineering; Electronic engineering,
telecommunications and information technology**

Chairperson: Prof.dr. Marian Poboroniuc

Time	Oral presentation	Authors
16.00-16.15	Using IoT in smart agriculture: study about practical realization and testing in real environments	Doru Cornei , Cristian Foșalău "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
16.15-16.30	Improving gas sensor performances using nanotechnologies	Ionel Hogaș , Cristian Foșalău "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		(Electrical engineering)
16.30-16.45	Data collection system using UAV	Alexandru-Mihai Ionescu , Cristian Foșalău Ionel Hogaș , Cristian Foșalău "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
16.45-17.00	The current stage of portable medical devices for ECG signal monitoring	Mădălina-Elena Datcu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
17.00-17.15	DBD system operating in ambient air for surface treatment of polyethylene terephthalate films	Ciprian-Cătălin Rusu , Daniel-Eusebiu Crețu, Radu Burlică, Dragoș Astanei and Oana Beniugă "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
17.15-17.30	Parkinson's Monitoring System	Adrian Saridache "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)

Parallel Session 4.6: Thursday, 19 May, 16.00-17.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Silvia Avasilcăi

Time	Oral presentation	Authors
16.00-16.15	Quality and risk management in industrial production systems: A literature review	Ciprian-Daniel Baltag "Transilvania" University of Brașov, Romania, Faculty of Technological Engineering and Industrial Management, 1 University Street, Brașov, Romania (Engineering and management)
16.15-16.30	Shortest path routes for battery electric vehicle charging in large cities and their metropolitan area	Ioan Lupușor "Transilvania" University of Brașov-Romania, Faculty of Technological Engineering and Industrial Management, 1 University Street, Brașov, Romania (Engineering and management)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



16.30-16.45	Circular economy: business models and good practice models. Waste uses of wine production	<u>Marius-Teodor Grămăticu</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Engineering and management)
16.45-17.00	Use of Balanced Scorecard Designer Light in order to develop the main processes within the "Alexandru Ioan Cuza" Economic High School Piatra Neamț	<u>Gabriela-Livia Curpănar</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Engineering and management)
17.00-17.15	Comparative study of crisis resolution methods	<u>Mariana Duduman</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Engineering and management)
17.15-17.30	Research on information security management in organizations	<u>Dragoș-Ionuț Anghelută</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Engineering and management)
17.30-17.45	Manager versus leader: a paradigm of increasing the efficiency of multinational organizations	<u>Constantin Vartolomei</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Engineering and management)



Friday, 20 May, 2022

PLENARY SESSION 3

Chairperson: Prof.dr. Alina-Adriana Minea

9.30-10.10	Collaborative Interdisciplinary Research with Industry – Success Stories of TUIASI	Prof.dr. Romeo-Cristian Ciobanu "Gheorghe Asachi" Technical University of Iasi, Romania
10.10-10.50	Structural Integrity of Polymeric Components Obtained Through Additive Manufacturing	Prof. Liviu Marsavina Politechnica University of Timisoara, Romania
10.50-11.00	Coffee Break	

Parallel Session 1.7: Friday, 20 May, 11.00-12.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Leandru-Gheorghe Bujoreanu

Time	Oral presentation	Authors
11.00-11.15	A communication on application of phase inversion technique in fabrication of CNT reinforced polymer composite filaments for additive manufacturing	Pooyan Parnian , Alberto D'Amore University of Campania "Luigi Vanvitelli", Department of Engineering, Via Roma 29, Aversa, 81031, Italy (Materials engineering)
11.15-11.30	Multi-disciplinary optimization of a spacecraft for a re-entry descent from LEO Orbit at constant heat flux density	Nicolina Montella University of Campania "Luigi Vanvitelli", Engineering Department, Via Roma 29, 81031 Aversa (CE), Italy (Materials engineering)
11.30-11.45	Preliminary research on the use of synthetic magnetite in the conservation and restoration of archaeological iron. Study on the possibility of using ferrofluids based on synthetic magnetite as polishing media	Ilie Cojocariu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
11.45-12.00	3D printing of smart metallic materials	Ana-Maria Scripcariu , Nicanor Cimpoeșu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



12.00-12.15	Non-spark metallic materials for applications in explosive environments	Romeo Gabriel Chelariu , Ioan Rusu, Costică Bejinariu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
12.15-12.30	Investigation on brake pad emissions on the environment	Cătălin Osoeanu ¹ , Daniela Lucia Chicet ¹ , Viorel Paleu ² , Costică Bejinariu ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Street, 700050, Iasi, Romania ² "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Mechanics, 61-63 Prof. D. Mangeron Street, 700050, Iasi, Romania (Materials engineering)
12.30-12.45	Experimental results from the obtaining of ceramic layers by APS and their post-deposition processing	Marian Luțcanu ^{1,2} , Iulian Ioniță ¹ , Nicanor Cimpoesu ¹ ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Street, 700050, Iasi, Romania ² "Gheorghe Asachi" Technical University of Iasi, Romania, Department of Physics, 67 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
12.45-13.15	Coffee Break	

Parallel Session 2.7: Friday, 20 May, 11.00-12.45

Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology

Chairperson: Prof.dr. Alexandru Sălceanu

Time	Oral presentation	Authors
11.00-11.15	Aspects regarding wireless communication within electrical equipment	Silviu Marian Antohi , Maricel Adam, Alin Dragomir, Mihai Andrușcă "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
11.15-11.30	2D and 3D FEM-based analysis on machine structures with unconventional topology permanent magnet	Alexandra Bobu , Alecsandru Simion, Adrian Munteanu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering,



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
11.30-11.45	Local survey over the non-ionising radiation associated with 5G phone base stations	<u>Marius Vasile Ursachianu</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
11.45-12.00	Data processing in the detection of abnormal cells in tissue	<u>Maria-Geanina Gheorghian</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
12.00-12.15	Experimental validation of an electrical machine with double rotor and intermediate stator performance	<u>Alexandra Bobu, Adrian Munteanu, Alecsandru Simion</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
12.15-12.30	Computation of magnetic flux density produced by underground medium voltage power lines	<u>Silviu Vornicu</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
12.30-12.45	Processing approach for non-electrical biological signals	<u>Robert Fuior</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
12.45-13.15	Coffee Break	

Parallel Session 3.7: Friday, 20 May, 11.00-12.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Daniela Popescu

Time	Oral presentation	Authors
11.00-11.15	Analysis of the supplier relationship management function and activities	<u>Cristina-Elena Ungureanu</u>



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		University Politehnica of Bucharest, Romania, Doctoral School of Entrepreneurship, Business Engineering and Management (Industrial engineering)
11.15-11.30	Modeling and analysis of thermal behaviour for brake discs	Cosmin Preda , Robert-Marian Bleoțu Lucian Blaga University of Sibiu, Romania (Industrial engineering)
11.30-11.45	Analysis of the plastic material hardness in the case of a part manufactured by 3D printing	Adelina Hrițuc "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Machine Manufacturing and Industrial Management, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
11.45-12.00	Use of the 3 level mind map method to identify constructive solutions for the development of a thermoforming mould	Marius-Andrei Boca¹ , Alexandru Sover, Laurentiu Slatineanu ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Machine Manufacturing and Industrial Management, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² University of Applied Sciences Ansbach, Faculty of Technology, Germany (Industrial engineering)
12.00-12.15	Functional requirements and design parameters for the manufacture of Damascus steel	Ioan Surugiu , Margareta Coteață, Laurențiu Slătineanu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Machine Manufacturing and Industrial Management, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
12.15-12.30	Computer aided analysis of free response of an AC Asynchronous Driving Motor due to an impulse excitation	Neculai Eduard Bumbu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Machine Manufacturing and Industrial Management, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
12.30-12.45	Design and testing of multi-material flexure hinges with morphing structure for fused filament fabrication	Vasile Ermolai "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Machine Manufacturing and Industrial Management, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
12.45-13.15	Coffee Break	



Parallel Session 4.7: Friday, 20 May, 10.30-12.30

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Petru Dușa

Time	Oral presentation	Authors
11.00-11.15	Design and execution of demolition works by blasting of industrial constructions - technical and safety aspects	Robert Laszlo , Ciprian Jitea, Bogdan Garaliu, Miklos Levente National Institute for Research and Development in Mine Safety and Protection to Explosion – INSEMEX, Petrosani, Romania (Industrial engineering)
11.15-11.30	Explosion risk assessment - an important chapter of the explosion protection document	Mirela Ancuta Radu , Adrian Marius Jurca, Florin Adrian Paun, Catalin Mihai Popa, Dan Sorin Gabor National Institute for Research and Development in Mine Safety and Protection to Explosion – INSEMEX, Petrosani, Romania (Industrial engineering)
11.30-11.45	Determination of air flow-methods and means	Alexandru Cămărășescu National Institute for Research and Development in Mine Safety and Protection to Explosion – INSEMEX, Petrosani, Romania (Industrial engineering)
11.45-12.00	From conventional to bionic limb prostheses - an overview	Dimitrie-Cristian Fodor "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Machine Manufacturing and Industrial Management, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
12.00-12.15	Finite element analysis of the self-aligning collet chuck mechanism	Stefan-Lucian Clisu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Machine Manufacturing and Industrial Management, 59A Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
12.15-12.30	Researches on the aesthetic perception of women's clothing	Carmen-Melania Blejan , Antonela Curteza "Gheorghe Asachi" Technical University of Iasi, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
12.30-12.45	The content and execution of a maintenance contract: a challenge for industrial companies	Mădălina-Laura Veleşcu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)



12.45-13.00	An approach of recycling textile waste with industrial applications	Florin St. C. Mustăță , Antonela Curteza "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
-------------	---	---

13.00-13.15	Coffee Break	
--------------------	---------------------	--

Parallel Session 1.8: Friday, 20 May, 13.15-14.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Leandru-Gheorghe Bujoreanu

Time	Oral presentation	Authors
13.15-13.30	Recent research of graphene nanofluids for heat transfer applications	Liviu-Ioan Zupcu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
13.30-13.45	Morphological characteristics of different phosphate layers deposited on the surface of concrete reinforcement steel	Petru Lazăr , Alin-Marian Cazac, Nicanor Cimpoescu, Costică Bejinariu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
13.45-14.00	Methods for investigating the adhesion to the substrate of the coatings obtained by thermal spraying	Radu-Armand Haraga , Stefan-Lucian Toma, Daniela-Lucia Chicet, Ioan Rusu, Costică Bejinariu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
14.00-14.15	Investigation of stainless steel surface modifications	Sebastian Mistreanu , Dragoș Cristian Achiței, Nicanor Cimpoescu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
14.15-14.30	Applicable standards and materials used in the manufacture of gloves used by firefighters for hand protection	Constantin Arvinte , Mihai-Adrian Bernevig, Constantin Baciuc, Costică Bejinariu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



		Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
14.30-14.45	Development of new advanced titanium alloy for medical applications	Iustinian Bălțatu , Marius Albert Mazilu, Mădălina Simona Bălțatu, Claudiu Vasile Ciubotaru, Petrică Vizureanu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
15.00-15.30	Closing ceremony	

Parallel Session 2.8: Friday, 20 May, 13.00-14.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Section 4. Electrical engineering; Energy engineering; Electronic engineering, telecommunications and information technology

Chairperson: Prof.dr. Mihăiță Horodincă

Time	Oral presentation	Authors
13.15-13.30	Life cycle assessment of textile waste-reinforced composite materials for construction applications	Eugen Constantin Ailenei ¹ , Maria Carmen Loghin ¹ , Dorina Nicolina Isopescu ² , Sebastian George Maxineasa ² ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Civil Engineering and Building Services, 1 Prof. D. Mangeron Blvd., 700050, Iasi (Industrial engineering)
13.30-13.45	Modern use of textile waste as building insulation	Andreea Nistorac "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
13.45-14.00	Creating addictive behavior to enhance sustainable fashion consumption	Iuliana Streba , Antonela Curteza "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



14.00-14.15	The impact of electromagnetic field sources on medical equipment in the anesthesia and intensive care unit and electrotherapy room	<u>Marina-Georgiana Roman</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
14.15-14.30	Visualization and interpretation of electromagnetic interferences on ultrasound diagnostic systems	<u>Alexandru-Marian Bordaș</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
14.30-14.45	The influence of electromagnetic interference on the radiological investigation equipment	<u>Adelina-Cristina Căsuță</u> "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Electrical Engineering, Energetics and Applied Informatics, 21-23 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Electrical engineering)
15.00-15.30	Closing ceremony	

Parallel Session 3.8: Friday, 20 May, 13.00-14.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Alina-Adriana Minea

Time	Oral presentation	Authors
13.15-13.30	Overview of drawbacks and benefits of ionic liquid 1-butyl-3-methylimidazolium tetrafluoroborate behaviour at heat transfer	<u>Elena-Ionela Chereches</u> , Alina Adriana Minea "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 63 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials science)
13.30-13.45	PEG based nanofluids and their thermophysical properties	<u>Marius-Ionut Chereches</u> , Elena-Ionela Chereches "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 63 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials science)
13.45-14.00	Influence of H ₂ S on P265GH steel	<u>Marius Gabriel Zaharia</u> , Sergiu Stanciu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



14.00-14.15	Magnetic pulse welding of dissimilar materials: a review	Narcis Nicolae Popescu¹ , Marian-Ștefan Lozneau ¹ , Dorian D. Luca ² ¹ "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania ² "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Automatic Control and Computer Engineering, 27 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
14.15-14.30	Materials for electric contacts	Ionuț Adomniței , Mihai Axinte, Romeu Chelariu, Nicanor Cimpoeșu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials engineering)
14.30-14.45	Importance of the characteristics of stainless steel used in the food industry for personal protective equipment	George Daniel Tanasievici , Alin Marian Cazac, Costică Bejinariu "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Materials Science and Engineering, 41 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Materials science)
15.00-15.30	Closing ceremony	

Parallel Session 4.8: Friday, 20 May, 13.15-14.45

Section 5. Mechanical engineering; Industrial engineering; Materials engineering; Engineering and management

Chairperson: Prof.dr. Mirela Blaga

Time	Oral presentation	Authors
13.15-13.30	Influence of the raw materials on knitted fabrics behaviour in dynamic testing conditions	Cristina Grosu , Mirela Blaga "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
13.30-13.45	Nonwoven Insulation IZOMIN – sustainable development by disruptive innovation	Cezar Florin Bulacu , Mirela Blaga "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



13.45-14.00	Selection and characterisation of fabrics for cosmetotextile with antimicrobial properties	Lucia-Oana Secăreanu , Mirela Blaga, Elena-Cornelia Mitran, Irina Mariana Sandulache, Mihaela-Cristina Lite, Ovidiu Iordache "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
14.00-14.15	Anthropometric study of the foot	Arina Seul , Diana-Roxana Viziteu, Antonela Curteza, Aura Mihai, Mariana Costea "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
14.15-14.30	Particularities of designing functional clothing through the JULIVI automated system	Victoria Danila , Antonela Curteza "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
14.30-14.45	Study on the concepts of beauty and green aesthetics in clothing	Giorgiana-Claudia Irimiea , Antonela Curteza "Gheorghe Asachi" Technical University of Iasi, Romania, Faculty of Industrial Design and Business Management, 29 Prof. D. Mangeron Blvd., 700050, Iasi, Romania (Industrial engineering)
15.00-15.30	Closing ceremony	



Authors institutional affiliation, in alphabetical order:

"Alexandru Ioan Cuza" University of Iași, Romania

„Gheorghe Asachi” Technical University of Iași, Romania

"Grigore T. Popa" University of Medicine and Pharmacy Iași, Romania

"Ion Ionescu de la Brad" University of Life Sciences, Iași, Romania

"Petru Poni" Institute of Macromolecular Chemistry, Iași, Romania

"Ștefan Luchian" Secondary School, Moinesti, Romania

"Vasile Alecsandri" University of Bacău, Romania

Academy of Romanian Scientists, Romania

Aristotle University of Thessaloniki, Greece

Bacau Water Quality Laboratory, Romania

Bucharest University of Economic Studies, Romania

Center for Research and Restoration-Conservation of Cultural Heritage "Moldova" National Museum, Iași, Romania

Gdynia Maritime University, Poland

Ghent University, Belgium

Institute of Physical Chemistry "Ilie Murgulescu" of the Romanian Academy, Bucharest, Romania

Loop S.r.l., V.le A. Gramsci, Napoli, Italy

Lucian Blaga University of Sibiu, Romania

Mansoura University, Egypt

National Institute for Research & Development in Mine Safety and Protection to Explosion – INSEMEX Petroșani, Romania

National Institute for Research and Development in Chemistry and Petrochemistry, Bucharest, Romania

National Institute of Hydrology and Water Management, Bucharest, Romania

National Research and Development Institute for Industrial Ecology ECOIND, Bucharest, Romania

National Technical University of Athens, Greece

PROMATERIS SA, Bucharest, Romania

Renault Tehnologie Roumanie, Bucharest, Romania

Romanian Academy, Iași Branch

Technical University of Moldova, Chisinau, Republic of Moldova

Transilvania University of Brasov, Romania



"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



Universidad de Salamanca, Spain

Universidade de Vigo, Spain

Università degli studi di Napoli Federico II, Naples, Italy

Université Côte d'Azur, Nice, France

Université du Littoral Côte d'Opale, Dunkerque, France

University of Applied Sciences Ansbach, Germany

University of Campania "Luigi Vanvitelli" Italy

University of Coimbra, Portugal

University of Petrosani, Romania

University of Rennes, Institute of Chemical Science, France

University Politehnica of Bucharest, Romania





"Gheorghe Asachi" Technical University of Iasi, Romania
5th International Conference of the Doctoral School
May 18 - 20, 2022, Iași, România



SOME KEY FIGURES:

- ✓ **199 papers**
- ✓ **participants from 11 countries (authors and co-authors)**
- ✓ **15 universities from abroad, 11 Romanian universities, 1 Romanian secondary school, 7 Romanian research institutes, 3 international companies**

THANK YOU FOR ATTENDING CSD2022!

**You are welcome to the
6th Edition of the International Conference of the
Doctoral School - "Gheorghe Asachi" Technical University
of Iași, România, in May, 2023!**