



**May, 7**

**8:30 - 09:00 ICEMS-BIOMED 2026 registration (University of Suceava, building D, floor 2)**

Amf. Dragomir Hurmuzescu (online at: <https://meet.google.com/yai-aztv-jfi>)

Moderators: *dr. Roxana FILIP, dr. L. Dan MILICI*

9:00 - 09:30 ICEMS-BIOMED 2026 Opening ceremony

09:30 – 10:15

- Ethics and AI in Academic Publishing (MDPI) - *ing. Iustina BOSTAN & dr. Lavinia BUTA*
- Rohde&Schwartz – *ing. Cristi BOLOVAN*
- HTEST – *ing. Ovidiu JARCĂ*

10:15 – 10:40 *dr. Octavian Adrian POSTOLACHE* - Digital Transformation in Healthcare: Smart Physical Therapy

10:40 – 11:05 *Marçal MORA-CANTALLOPS* - Preparing Future Clinicians for AI-Driven Biomedicine: the Educational Approach from the AIMS Erasmus+ Project

11:05 – 11:30 *dr. Haroon ELEHI* - On Regulating High-Risk AI Systems

**11:30 – 12:00 coffee-break**

12:00 - 12:30 *dr. Lucian GRUIONU* - From Robotic Catheter Control to AI Shape Sensing in Lung Bronchoscopy

12:30 - 13:00 *dr. Giovanni DE LELLIS* - Particle therapy with technologies employed at CERN

13:00 – 13:30 *dr. Robert-Mihai AMARIEI* - Saving Time, Saving Lives: The Present and Future of Proton Therapy Quality Assurance

13:30 – 14:00 *dr. Nikolay ATANASOV* - Temporal Variation of RF-EMF Exposure in Urban Areas: Results from Measurement in Bulgaria

**14:00 – 15:00 lunch (Room D101)**

15:00 – 18:00 Sections

**Modern Solutions for Diagnostics and Treatment**

Room D107 (<https://meet.google.com/qmk-ejxp-odw>)

Moderators: *dr. Olga Adriana CALIMAN-STURDZA, dr. Roxana TODEREAN*

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Nina Lazar, Roxana Gheorghita- Florin Filip, Ruxandra Filip and Roxana Filip

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The Wood's Lamp: A Valuable Tool for Diagnosing Dermato-logical Diseases and Assessing Facial Skin Hydration Levels

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Olga Adriana Caliman-Sturdza

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Artificial Intelligence for COVID-19 Diagnosis

Olga Adriana Caliman-Sturdza and Roxana Filip	The Future Step in Antibiotics Stewardship: Is the Artificial Intelligence a Real Solution?
Elena Vizitiu Lakhdari, Claudiu Cobuz, Adriana Slusar and L. Dan Milici	Application of Machine Learning for Predicting Diabetes Mellitus Using Body Composition Parameters
Melinda-Ildiko Mitranovici	AI potential in breast imaging, a new screening tool for breast cancer
Octavian Cordun	Developing the Treatment Capacity of the Oncology Institute of Moldova by Superficial Brachytherapy
Iuliana-Denisa Trofin and Mircea Giurgiu	Toward Robust Diabetic Retinopathy Screening: Cross Dataset Evaluation of SVM-Based Machine Learning Models
Mirela Gabriela Apostoaie, Mihaela Baritz, Barbu Braun, Angela Repanovici and Anca Ioana (Tătaru) Ostafe	Biomechanical Assessment of Walking in Simulated Low Vision Conditions Using a Visual Aid Device
Gyorgy Bodi, Mihaela Ioana Baritz, Angela Repanovici, Alexandra Maria Lazar and Anca Ioana Tataru (Ostafe)	The Orthokeratology Procedure Computer Simulation Analysis

## 15:00 – 18:00 Sections

### **Workshop on EMC and EMB**

Amf. Dragomir Hurmuzescu (online at: <https://meet.google.com/yai-aztv-jfi>)

**Moderators: dr. Călin MUNTEANU, dr. Alexandru MOREGA**

Alexandru Morega	Shape and Structure of Electromagnetic Fields in Electropermeabilization Constructal Law in Physics and Its Applications
Lavinia Opris, Calin Munteanu, Claudia Pacurar, Adina Giurgiuman, Claudia Constantinescu, Sergiu Andreica and Marian Gliga	Improving Magnetic Field Mitigation Under Power Lines using a Single Passive Loop with External Capacitance
Lucian Petrascu, Adina Giurgiuman, Claudia Constantinescu, Razvan Gliga and Claudia Pacurar	Comparative Analysis of Litz and Planar Coils for Inductive Wireless Power Transfer Systems
Delia Isaila, Claudia Pacurar, Claudia Constantinescu, Oana Luca and Adina Giurgiuman	Numerical Modeling Analysis of Planar Low-Pass Filter with Variable Impedance
Mirela Șorecău, Emil Șorecău and Paul Bechet	Preliminary Evaluation of SDR-based Jamming of Drone FHSS Uplinks
Annamaria Sârbu, Ștefan Ionescu, Alexandru-Marius Vasile and Mădălina Curta	Assessment of TETRA Base Station Emissions using UAV-SDR based Electromagnetic Field Mapping and Fixed Site Spectrum Analysis
Simona Miclaus, Maxime Elisabeth and Ladislau Matekovits	Cross-Validation of Near-Field Energy Deposition on 5G Metasurfaces using Transient Infrared Thermography and Electric-Field Mapping
Monika Parameswaran and Vijayalakshmi Shanmugam	An Equiangular Wedge-Based Energy Hole Detection and Prevention Strategy for Wireless Sensor Networks
Vlad Aniței, Adrian-Valentin Boicea and Mihai-Stelian Munteanu	Implementing a Retrieval Augmented Generation Architecture for the Power Engineering Sector: Some Fundamentals
Andrei Chiciuc, Marcel Burduniuc and Anatolii Bescupschii	Electromagnetic Compatibility Management in Medical Institutions in the Republic of Moldova: Site-EMC Framework for Digitalization and Energy Modernization

## 15:00 – 18:00 Sections

### **Biomedical Engineering (I)**

Room D106 (<https://meet.google.com/qcc-mhwq-pdm>)

**Moderators: dr. Alexandru NEMTOI, dr. Dragos VICOVEANU**

Roxana Gheorghita, Irina Besliu Bancescu and Alexandru Nemtoi	Impact of Post-processing Cleaning Agents on the Mechanical and Physical Properties of Water-Washable vs. Conventional 3D-Printed Dental Resins
Irina Besliu Bancescu, Roxana Gheorghita and Alexandru Nemtoi	Optimizing Post-Curing Protocols for 3D-Printed Dental Mod-els: A Short-Term Evaluation of Mechanical and Physical Properties
Ramona-Geanina Cîmpan, Lucian Vacaru, Marius Prelipceanu and Dragoș-Ionuț Vicoveanu	Portable Multichannel EMG Acquisition and Analysis Platform with Adaptive Detection and Machine Learning Classification for Forearm Neuromuscular Assessment
Dragoș Vicoveanu, Adelina Scheuleac and Elena Vizitiu Lakhdari	Heart-Rate-Based Biofeedback in Indoor Cycling among Adolescents: Effects on Heart Rate Recovery and Psychomotor Performance
Laura Cătălina Dospinescu, L.Dan Milici, Edi Marian Timofte and Marcel Pușcașu	Heart-Rate-Based Biofeedback in Indoor Cycling among Adolescents: Effects on Heart Rate Recovery and Psychomotor Performance
Ariana Apopii, Mihai-Emanuel Spiță, Miralena I. Tomescu and Ovidiu Andrei Schipor	Real-Time Modulation of Prefrontal Activity via Automated EEG-tDCS Closed-Loop Interventions: A Feasibility Study
Lucas Miron, Oana Geman, Alexandra Stefania Mihai (Ungureanu) and Roxana Todorean	From in Ear Canal to Neural Dynamics Electroencephalography for Everyday Brain Sensing
Tudor-Costin Bizu	Digital Twin-Orchestrated IoT Architecture for Patient Wayfinding in Complex Healthcare Facilities
Vasugi R., Dhilip Kumar, Oana Geman and Roxana Todorean	Real-time Bacterial Colony Count Detection and Classification using Computer Vision
Yixun Huang, Nhi Nguyen, Sara Sharghilavan and Oana Geman	EEG-Based Analysis of Hemispheric Lateralisation for Autism Screening Using Machine Learning
Bogdan Nicușor Bindea, Călin Cenani, Gratiana Hermann and Zeno Sparchez	Reinforcement Learning-Driven Adaptive Synchronization of Real-Time Biomedical Signal Streams

## 19:00 – 23:00 Gala Dinner - Hotel MyContinental Suceava

May, 8

Amf. Dimitrie Leonida (online at: <https://meet.google.com/yai-aztv-jfi>)

Moderator: dr. Paul BECHET, dr. Mihai MUNTEANU

09:00 – 09:30 dr. Oana GEMAN - Machine Learning and Deep Learning in Brain Research

09:30 – 10:00 Camelia MIRON - Drug delivery systems based on plasma-activated liquids for cancer treatment

10:00 – 10:30 Taishi YAMAKAWA - Chemical functionalization of solutions via plasma-induced radical pathways at the gas–liquid interface

**10:30 – 11:00 coffee-break (Room D101)**

11:00 - 13:00 Sections

**Workshop: "Clinical Perspectives on Mobile Health Technologies"**

(organized by: Czech Technical University in Prague & Grigore T. Popa University of Medicine and Pharmacy Iași, in the framework of ERASMUS+ Programme "Advancing Hybrid Management and Digital Technology in Healthcare Education (Hybrid Healthcare)")

Amf. Dimitrie Leonida (online at: <https://meet.google.com/yai-aztv-jfi>)

Moderators: dr. Zuzana Dvorakova, dr. Radu CIORAP

Petra Petrova, Zuzana Dvorakova and Martina Caithamlova	Hybrid Healthcare: AI-Driven Case Evidence from Czechia Practice Title
Catalina Luca, Robert Fuior, Radu-George Ciorap, Doru-Ionut Andritoi, Ovidiu Popa and Calin-Petru Corciova	mHealth-Based Wearable System for Real-Time Monitoring and Prevention of Spinal Postural Disorders
Robert Fuior, Catalina Luca, Radu-George Ciorap, Doru-Ionut Andritoi, Matei Moruz, Onita Cristiana Amalia and Calin-Petru Corciova	Smart Healthcare Solution for Medication Adherence in Neuro-Degenerative Diseases Using Internet of Medical Things (IoMT) Systems
Flavia-Iuliana Neculai, Andreea-Larisa Țiploiu, Mădălin Geru, Andreea Matei, Robert Fuior and Călin Corciovă	Integrated Assessment and Rehabilitation System for Hand Function
Mădălin Geru, Andreea Matei, Flavia-Iuliana Neculai, Andreea-Larisa Țiploiu, Călin Corciova and Robert Fuior	An Artificial Intelligence–Driven Clinical Decision Support System for Patient Triage
Barbu Braun, Corneliu Drugă and Ionel Șerban	Research on Smart Alert Systems Improving for Alone or Special Needs Persons
Sergiu Tutunaru and Anatolie Babin	AI Integration in Smart Village Ecosystems: A Cross-Border Digital Infrastructure Approach

11:00 - 13:00 Sections

**Biomedical Engineering (II)**

Room D107 (<https://meet.google.com/qmk-ejxp-odw>)

Moderators: dr. Mihai MUNTEANU, dr. Adrian Valentin BOICEA

Mariana Jacob Rodrigues and Octavian Postolache	Urban Health Monitoring Using Environmental and Physiological Data: A Case Study
Md Razu Miah, Mariana Jacob Rodrigues and Octavian Postolache	ECG Interpretation in Natural Language from Derived Metrics through API Invocation
Andreea Halas, Mihai Munteanu and Radu Ciorap	Comparative Analysis of EMG Signals Using MUAP Extraction and Characterization
Anitei Vlad-Alexandru, Mihai Munteanu and Alexandru Lodin	Comparative Study of the Performance of Vernier And Biopac Spirometers in the Assessment 3 of Pulmonary Function
Anitei Vlad-Alexandru, Mihai Munteanu and Vlad Muresan	Dual Clinical System for Respiratory Parameter Monitoring: Accelerometer on the Thoracic Cage and Nasal Thermistor
Ana Cristina Feneșan, Alexandru Ianoși-Andreeva-Dimitrova and Silviu Dan Mândru	Infrared-Based Detection of Muscle Contraction for Control Signal Generation
Barbu Braun, Mihaela Baritz, Mirela Apostoaie and Alexandra Lazăr	Low Cost Solution for Efficiency Increasing in Chromatic Perception for Visual Screening
Anca Ioana Tataru (Ostafe), Mihaela Ioana Baritz, Luciana Cristea, Angela Repanovici and Mirela Gabriela Apostoaie	Theoretical Approach of Gait Cycle Aspects for the Development of Simulation of Analysis models
Anca Ioana Tătaru (Ostafe), Mihaela Ioana Baritz and Sorin Constantin Zamfira	Analysis of the Incidence of Locomotor Pathologies on Dynamic Parameters of the Walking Cycle
Alexandra-Maria Lazăr, Mihaela Ioana Baritz, Angela Repanovici, Braun Cristian Barbu and Bodi Gyorgy	Modeling and Evaluation of the Influence of Chromatic and Emotional Parameters on Eye Movements in Biomedical Applications
Mihai Brînză, Dinu Litra, Nicolae Magariu, Adrian Bîrnaz, Cristian Lupan, Lynn Schwäke, Vasilii Crețu, Stefan Schröder and Oleg Lupan	Broadening ZnO: Ag Potential for Hydrogen Detection Applications via iCVD Coated Thin Film Polymer
Mihai Brînză, Dinu Litra, Vasilii Crețu and Ion Pocaznoi	Enhancing Potential of MOX-based Gas Sensor through iCVD Coatings for Biomedical Applications

Amf. Dimitrie Leonida (online at: <https://meet.google.com/yai-aztv-jfi>)

Moderator: dr. Mihai MUNTEANU, dr. Radu CIORAP

13:00 – 13:30 Closing ceremony

**13:30 – 14:30 lunch (Room D101)**