EHB 2026 / DETAILED PROGRAM

PROGRAM OF PAPER PRESENTATIONS • 12–13 NOVEMBER 2026 • IAŞI & ONLINE

THURSDAY, 12 November 2026, 10:30 – 13:00, Room I (Entresol)
Workshop on BCI-Based Advances in Rehabilitation Engineering Applications (SS3)
Moderators: Prof. dr. eng. Marian-Silviu Poboroniuc, Assoc. Prof. dr. eng. Dănuț Irimia | 1 paper & workshop demonstration

ID	Session	Authors	Paper title	Presentation
67	SS3	Alexandru Buzamat, Alexandru Mitocaru and Marian-Silviu Poboroniuc	**From Motor Imagery Classification to Navigation Evaluation in a BCI Wheelchair Simulator**	ONSITE

THURSDAY, 12 November 2026, 10:30 – 13:00, Room II (Orion)
Decision support systems, Artificial Intelligence (I) (DSS)
Moderators: Prof. dr. eng. mat. Adriana Alexandru (online), Dr. eng. Eugenia Tîrziu (online) | 11 papers

ID	Session	Authors	Paper title	Presentation
2	DSS I	Yangsheng Hu, Longxi He, Jianfeng He and Hongbo Chen	LARES: Lifecycle-aware Authorization and Revocation Semantics for Medical Imaging Studies and Derivative Reuse in E-Health Workflows	ONLINE
6	DSS I	Xiangyun Cao, Zhiying Zhu, Zhangjun Li, Zhicheng Zhang, Yi Wang and Wanyan Ma	**Geometry-conditioned Mass-Density-Total Consistency Learning for RGB-D Food Nutrition Estimation**	ONLINE
8	DSS I	Ugonna Oleh, Pallavi Magar and Roman Obermaisser	**Development of a Knowledge-Graph-Enhanced RAG Framework for Clinical Decision Support in Psychology**	ONSITE
13	DSS I	Robert-Marian Damoc and Dan Marius Dobrea	**An Extended YOLO Framework with Quantum HyperKernel and Attention Masks**	ONLINE
15	DSS I	Paula-Antonia Ioo, Evelin Henrietta Dulf and Alexandru-George Berciu	**Thyroid Cancer Risk Assessment: A Comparative Analysis of Machine Learning Models**	ONLINE
16	DSS I	Vasile-Alexandru Apostol, Aurelia-Mihaela Bodeanu, Luiza-Elena Burlacu, Ioan-Stefan Sacala and Alexandra-Valentina Anghel	**A Metadata-Driven Data Passport Methodology for Multimodal Clinical Data Engineering in Oncology**	ONLINE
25	DSS I	Eugen Pop, Mihnea-Alexandru Moisescu and Miruna-Elena Iliuță	**A Multi-layered Hospital Management System Architecture**	ONLINE

THURSDAY, 12 November 2026, 10:30 – 13:00, Room II (Orion)

Decision support systems, Artificial Intelligence (I) (DSS)

Moderators: Prof. dr. eng. mat. Adriana Alexandru (online), Dr. eng. Eugenia Tîrziu (online) | 11 papers

ID	Session	Authors	Paper title	Presentation
26	DSS I	Eduard-Iulian Ivan, Mihai-Samuel Savu, Erin-Andreea Ludoșan, Bianca Dobre, Maria-Iuliana Dascălu and Miruna-Elena Iliuță	**Hybrid Security Architecture: Kill Chain Simulation and Proactive AI-Assisted Telemetry in a POSIX Environment**	ONLINE
27	DSS I	Yasuhiro Iida, Yasuo Ishigure, Tasuku Mariya, Ikuma Sato and Ayahiko Niimi	**GEMINI: A Graph-based Ensemble for Inconsistency Inference**	ONLINE
32	DSS I	Alexandre Carrança, João Oliveira, Rosane Sampaio, Eduardo Santos, Joana Andrade, Yusbel Chávez Castilla, Edel Garcia Reyes, Nuno Sousa and Luís Gonzaga Magalhães	**A Prescription-Driven Multimodal Platform for Remote Physical Rehabilitation Using Serious Games**	ONLINE
135	DSS I	Lubomir Štěpánek	**Geometric Visibility and UV-C Dose for Room Disinfection: A Counterexample in a Fixed Polygonal Room**	ONSITE

THURSDAY, 12 November 2026, 10:30 – 13:00, Room III (Clio)

Biomedical Signal Processing (SP)

Moderators: Prof. dr. eng. Eugen Lupu (online), Lect. dr. bioeng. Oana-Diana Hrișcă-Eva (onsite), Sen. Res. dr. eng. Emilian David (onsite) | 12 papers

ID	Session	Authors	Paper title	Presentation
10	SP I	Radu Dogaru and Ioana Dogaru	**An improved RDT feature extractor enabling bio-medical signal classification on TinyML platforms**	ONLINE
12	SP I	Ana-Maria Grigoras Oanca, Mihaela Andrei and Daniela Tarniceriu	**Machine Learning Assisted Polar-Coded Systems for Biomedical Signal Transmission over Impulsive Noise Channels**	ONLINE
55	SP I	Mehmet Karahan	**Heart Rate Estimation with PPG Signal Processing for Wearable Technologies and Biomedical Applications.**	ONLINE
56	SP I	Fira Monica, Hariton-Nicolae Costin, Liviu Goras and Lucian Fira	**Robust Multivariate Feature Selection via Distance Correlation, HSIC, and Projection Correlation: A Comparative Study on the MADELON Benchmark**	ONLINE

THURSDAY, 12 November 2026, 10:30 – 13:00, Room III (Clio)

Biomedical Signal Processing (SP)

Moderators: Prof. dr. eng. Eugen Lupu (online), Lect. dr. bioeng. Oana-Diana Hrișcă-Eva (onsite), Sen. Res. dr. eng. Emilian David (onsite) | 12 papers

ID	Session	Authors	Paper title	Presentation
72	SP I	Matteo Ricci, Vicente Bertomeu-González, Fernando Hornero, Frida Sandberg, Raúl Alcaraz and José J Rieta	**Cross-Dataset Blood Pressure Estimation with Compact PPG Feature Sets**	ONLINE
80	SP I	Ida Maruotto, Vittorio Santoriello, Moriz Sterr, Carmine Gelormini, Maria Romano, Alfonso Maria Ponsiglione and Paolo Gargiulo	**Neurophysiological and Autonomic Responses to Eyes-Open and Eyes-Closed Conditions in Parkinson's Disease: An EEG and Heart Rate Variability Study**	ONLINE
84	SP I	Cristiana-Mirela Lupu	**Bio-Medical Signals for Driver Emotion Recognition: A State-of-the-Art Review of Modalities, Datasets and Translational Challenges**	ONLINE
92	SP I	Emanuele Costanzo, Daniela Cardone, Arcangelo Merla and David Perpetuini	**Deep Learning Analysis of PPG Spectrograms for Abnormal Ankle-Brachial Index Classification**	ONLINE
97	SP I	Gabriel-Alexandru Vrabie and Mihaela-Ruxandra Lascu	**Vision Transformer-Based Epilepsy Detection with Variational Mode Decomposition**	ONLINE
98	SP I	Pietro Chierico, Lorenzo Fácila, Arturo Martínez-Rodrigo, Raúl Alcaraz, Mohamed Elgendi and José J Rieta	**Spectral Concentration of Phase-Normalized PPG Pulses for Training-Free Quality Assessment**	ONLINE
101	SP I	Alexandra Nistor, George Calin Seritan, Bogdan-Adrian Enache, Felix Constantin Adochiei and Florin Ciprian Argatu	**Comparative Evaluation of Wavelet and Supervised Wavelet-LMS Filtering for ECG Denoising in LabVIEW**	ONLINE
93	SP I	David Perpetuini, Sonia Coletta, Francesco Romano, Remo Petruccioli, Daniele Sacripante, Daniela Cardone, Fabio Trippetti and Arcangelo Merla	**Machine Learning Analysis of Resting Nasal Tip Temperature to Assess Peripheral Hemodynamics in Older and Young Adults: A Pilot Infrared Thermography Study**	ONLINE

THURSDAY, 12 November 2026, 14:30 – 17:00, Room I (Entresol)

Medical devices, Instrumentation, Measurements (I) (MD)

Moderators: Prof. dr. eng. Radu Bozomitu (onsite), Assoc. Prof. dr. bioeng. Felix-Constantin Adochiei (onsite) | 11 papers

ID	Session	Authors	Paper title	Presentation

14	MD I	Samuel Jones	**Machine Learning for Vocal Monitoring of Singers: an Autoencoder Concept**	ONSITE
17	MD I	Aurelia-Mihaela Bodeanu, Vasile-Alexandru Apostol, Luiza-Elena Burlacu, Ioan-Ştefan Sacală, Andreea-Ramona Dănciulescu and Alina-Claudia Petrescu-Niţă	**Beyond Prediction Accuracy: Clinical Evaluation of Multimodal Blood Glucose Prediction in Type 1 Diabetes**	ONLINE
18	MD I	Ştefania Dinoiu, Maria Rus, Alina Sultana and Doru Andritoi	**Assistive Communication System for Immobilized Patients Based on Eye Movement Recognition**	ONLINE
41	MD I	Víctor Manuel Tena Pañero, Jesús León Regalado, Juan Francisco Ortega Morán, Pedro Núñez Trujillo, Francisco Miguel Sánchez Margallo and José Blas Pagador Carrasco	**A low-latency Android bridge platform for integrating BLE reaction-time devices into PC-based serious games**	ONLINE
42	MD I	Jesús León Regalado, Víctor Manuel Tena Pañero, José Blas Pagador Carrasco, Guadalupe Gónzalez Santos, Pedro Núñez Truijllo, Francisco Miguel Sánchez Margallo and Juan Francisco Ortega Morán	**A comparison of traditional and contemporary songs in a dance exergame for older adults**	ONLINE
43	MD I	Ainhoa Ruiz-Vitte, Víctor Cadenas-Sánchez, Daniel Amor, Julián Benito-León, Eduardo Rocón, Álvaro Gutiérrez and Blanca Larraga-García	**Automatic Activities of Daily Living Classification Using Wrist-Worn Inertial Sensing**	ONLINE
44	MD I	Michael Obach, Bergoi Ibarlucea, Ainhoa Insausti-Delgado, Marina Peña-Díaz, Enaitz Otazua-Uribe and Erik Hernández-Jiménez	**Towards Implantable Artificial Intelligence: TinyML Deployment and Resource-Constrained Inference for Continuous Biomarker Monitoring**	ONLINE
45	MD I	Juan Carlos Gómez-Blanco, Tiago M. Cardoso, Francisco Miguel Sánchez-Margallo, José Blas Pagador Carrasco and Luisa F. Sánchez-Peralta	**Automatic, reliable, and repeatable z-axis calibration in a modified bioprinting printhead via load cell integration**	ONLINE
47	MD I	Vicoveanu Dragos, Marius Prelipceanu, Oana Geman and Dan-Laurentiu Milici	**Evaluating Cardiac Dynamics Priors for ECG Denoising: An Ablation Study**	ONLINE
48	MD I	David Dulf, Andreea Balan, Alexandru-George Berciu and Lehel Dénes-Fazakas	**Adaptive Time-Varying PID Control of Basal Insulin Delivery in Type 1 Diabetes: An In Silico Evaluation**	ONLINE
53	MD I	Francisco M. Gonzalez Nuño, J. Carlos Gómez Blanco, J. Blas Pagador Carrasco and Luisa F. Sánchez Peralta	**Comparative Evaluation of Image-Based, Multimodal and Temporal Deep Learning Models for Quality Classification in Extrusion-Based Bioprinting**	ONLINE

THURSDAY, 12 November 2026, 14:30 – 17:00, Room II (Orion)

Decision support systems, Artificial Intelligence (II) (DSS)

Moderators: Dr. eng. Marilena Ianculescu (online), Dr. eng. Lidia Băjenaru (online) | 10 papers

ID	Session	Authors	Paper title	Presentation
33	DSS II	Mohammad Alotaibie, Abdussalam Salama, Muhammad Aslam Jarwar and Reza Saatchi	**Citizens' Evaluation of National eHealth Services in Saudi Arabia: A Cross-Sectional Survey of User Experience, Accessibility, Privacy, and Sociocultural Expectations**	ONLINE
40	DSS II	Marius Gavrilescu	**An Adaptive Policy for Epidemic Control in a Multi-Agent SEIRV Framework**	ONLINE
60	DSS II	Marcin Kolakowski, Margherita Osimani, Elvira Maranesi, Irina Mocanu, Jerzy Gasowski and Karolina Piotrowicz	**LLM-Based COPD Symptom Extraction from Patient Narratives: A Pipeline Feasibility Study**	ONLINE
62	DSS II	Charles Bruce and Mahmoud Elbattah	**RAG-Based LLMs for Post-Discharge Patient Education: Evaluating Faithfulness and Readability**	ONLINE
69	DSS II	Ion Adelina, Burlacu Cătălina Mercedes, Paraschiv Cristina, Stanica Daniela-Narcisa and Stanica Nicolae-Cătălin	**Artificial neural network screening for NBOMe psychotropic drugs based on GETAWAY descriptors**	ONLINE
77	DSS II	Constanta Zoie Radulescu, Iulia Cristina Radulescu and Alexandra Ioana Mihailescu	**Causal Analysis of Criteria for Selecting a Conversational AI System for Health Questions based on NRG-DEMATEL Method**	ONLINE
79	DSS II	Daniel Radu, Alexandru Archip and Silviu-Dumitru Păval	**MoA Chain: A Decentralized Multi-Agent Inference Framework with Applications in Medical Decision Support**	ONLINE
86	DSS II	Remus-Florin Stanca and Monica Borda	**DNA-Derived OTP-Like Encryption for Secure Brain MRI Transmission: Hybrid FPGA-Mobile Application**	ONLINE
87	DSS II	Mohamed Mohamed M'Bareck, Mohamed El Houmed, Mohamedou Hmeied Maham, Mohamed Abdarhmane Jiddou, Chriva Chekrad Salem, Marco Nazzaro, Mariano Feccia, Sandro Petrolati, Fabrizio Clemente, Ahmed Eba Elwelaty and Alessandro Pingitore	**A Digital Cardiology Registry Embedded in Routine Care in Mauritania**	ONLINE

THURSDAY, 12 November 2026, 14:30 – 16:10, Room III (Clio)

Technical and Economic Aspects of Healthcare (SS1)

Moderators: Assoc. Prof. dr. eng. Martin Rožánek, Assoc. Prof. dr. eng. Petr Kudrna (both onsite) | 8 papers

ID	Session	Authors	Paper title	Presentation
54	SS1	Aneta Benešová, Zuzana Řezáčová and Petra Petrová	**Wearable-Based OSA Case Detection and Treatment Entry versus Polysomnography: An Exploratory ModelBased Analysis from Czechia**	ONSITE
30	SS1	Simon Walzel, Jonas Horak and Matej Losos	**Comparison of Finger- and Wrist-Based Perfusion Index Measurements Using Pulse Oximeters and a Smartwatch**	ONLINE
65	SS1	Zuzana Dvořáková, Kathy Kelly, Grace Roche, Martina Caithamlová and Petra Petrová	**From Digital Competence to Service Coordination: An Instructional Framework for Hybrid Healthcare Management Education**	ONSITE
117	SS1	Aneta Benešová, Ondřej Gajdoš, Martina Holá and Adéla Miňhová	**Cost-Effectiveness of Surgical versus Conservative Treatment of Achilles Tendon Rupture in Professional Football Players: A Decision-Tree Analysis**	ONSITE
124	SS1	Aneta Benešová, Martina Holá and Barbora Žížalová	**Validation of Wearable Heart Rate Monitors in Athletes During Submaximal Cycling: A Comparison with Three-Lead ECG**	ONSITE
114	SS1	Anna Erfányuk Kamenská, Vojtěch Kamenský and Gleb Donin	**Integrating Patient Preferences into a Discrete-Event Simulation Model of Prostate Cancer Screening**	ONSITE
85	SS1	Leos Tejkl	**RFID-Based Ultrasound Simulation Module: Design and Technical Validation**	ONSITE
131	SS1	Martin Rožánek, Lenka Horakova, Josef Skola	**Spectral Preprocessing and the Interpretation of Slow-Wave Features in Patients after Traumatic Brain Injury**	ONSITE

THURSDAY, 12 November 2026, 16:10 – 17:00, Room III (Clio)

Medicine and Informatics (SS6)

Moderators: Prof. dr. Marcel Costuleanu, MD (online), Assoc. Prof. dr. Adina Carmen Ilie, MD (on site) | 5 papers

ID	Session	Authors	Paper title	Presentation
36	SS6	Arpita Shil Puja, Ishrat Sayeeda Tashfia, Nafisa Nawal, Shahidul Tonmoy, Mst Umme Nashitun Haque, Saira Binte Awal, Faria Tasnim, Tasnuba Yasmin, and Md Kaiissar Mannoor	**Establishment of In-House Methodology for DNA Extraction from Peripheral Blood Mononuclear Cells and Bacterial Colonies**	ONLINE

THURSDAY, 12 November 2026, 16:10 – 17:00, Room III (Clio)
Medicine and Informatics (SS6)
Moderators: Prof. dr. Marcel Costuleanu, MD (online), Assoc. Prof. dr. Adina Carmen Ilie, MD (on site) | 5 papers

ID	Session	Authors	Paper title	Presentation
63	SS6	Aurelia Profir, Laura Prepeliță, Nicolae Enaki, Marina Turcan and Viorica Tonu	**Optical (UVC/Raman) Information Processing and Control in Living Systems: A Multiscale Quantum–Classical Perspective on LexA–RecA–Pol V Dynamics**	ONSITE
95	SS6	Ecaterina Pavlovschi, Felicia Darii, Valeriana Pantea, Cristina Trocin, Serghei Curlat, Dan-Cristian Uşurelu, and Olga Tagadiuc	**Malondialdehyde-Equivalent Thiobarbituric Acid-Reactive Substances in Human Retinal Pericytes Exposed to Hyperglycemic and Mannitol-Based Osmotic Conditions**	ONLINE
126	SS6	Cristian-Catalin Gavat, Afrodita Doina Marculescu and Irina Gradinaru	**Newly Developed Visible (VIS) Spectrophotometric Analysis for the Quantitative Determination of Lisinopril in Pharmaceuticals**	ONLINE
255	SS6	Iustina Botezatu, Léonie Beaupère, Audrey Beaussart, Christophe Demaille, Stéphane Arbault, and Arnaud Chovin	Investigating Bioenergetic Activities of Single Mitochondria by AFM-SECM Microscopy (Abstract)	ONSITE

FRIDAY, 13 November 2026, 8:00 – 10:00, Room I (Entresol)
Medical devices, Instrumentation, Measurements (II) (MD)
Moderators: Assoc. Prof. dr. eng. Cristian Rotariu, Assoc. Prof. dr. bioeng. Călin Corciovă (both onsite) | 9 papers

ID	Session	Authors	Paper title	Presentation
68	MD II	Dan Marius Dobrea, Matei-Stefan Dobrea and Monica-Claudia Dobrea	**An Edge-AI and UAV-Assisted Early Warning System for Brown Bear Detection and Human Safety**	ONSITE
73	MD II	Matteo Ricci, Lorenzo Fácila, Vicente Bertomeu-González, Arturo Martínez-Rodrigo, Raúl Alcaraz and José J Rieta	**Simulated Apnea Classification from Neck PPG: A Subject-Independent Evaluation**	ONLINE
74	MD II	Pietro Chierico, Lorenzo Fácila, Vincente Bertomeu-González, Fernando Hornero, Raúl Alcaraz and José J Rieta	**Wrist-PPG Stress Detection: Accuracy and Coverage Depend on Signal Quality Assessment**	ONLINE
75	MD II	Teofil Ilie Ursache, Radu Gabriel Bozomitu, Cristian Rotariu, Mihai Aron, Diana Costin and Hariton Costin	**Wearable-Based Driver Stress Monitoring: From Laboratory Datasets to a Consumer Smartwatch**	ONSITE

FRIDAY, 13 November 2026, 8:00 – 10:00, Room I (Entresol)
Medical devices, Instrumentation, Measurements (II) (MD)
Moderators: Assoc. Prof. dr. eng. Cristian Rotariu, Assoc. Prof. dr. bioeng. Călin Corciovă (both onsite) | 9 papers

ID	Session	Authors	Paper title	Presentation
78	MD II	Ainaz Nobakhtvand, Catalina Luca and Calin Corciova	**Multimodal Analysis of Visual Decision-Making in Autism and Dyslexia Using EEG and Machine Learning**	ONLINE
82	MD II	Catalina-Mercedes Burlacu, Adrian Beteringhe, Ion Adelina, Stan Maria and Paraschiv Cristina	**Leakage-Aware AI Evaluation of Bearing Diagnosis and Remaining Useful Life Models: A Benchmark Study Toward Medical Equipment Maintenance**	ONLINE
83	MD II	Catalina-Mercedes Burlacu, Adrian Beteringhe, Ion Adelina, Paraschiv Cristina and Stan Maria	**AI-Based Cross-Dataset Tool Wear Evaluation with Implications for Medical Device Manufacturing**	ONLINE
102	MD II	Robert Fuior, Catalina Luca, Onita Cristiana Amalia and Călin Corciovă	**Multimodal Sensor-Based System for Post-Stroke Upper-Limb Rehabilitation**	ONSITE
103	MD II	Florin Bogdan and Mihaela-Ruxandra Lascu	**Beyond the Holter: Bioengineering Artificial Intelligence-Powered Wearable Biosensors as the Clinician's Co-Pilot in Cardiac Tele-Medicine**	ONLINE

FRIDAY / 13 NOVEMBER 2026

FRIDAY, 13 November 2026, 8:00 – 10:00, Room II (Orion)
Medical imaging and image processing (I) (IP)
Moderators: Sen. Res. dr. Silviu Bejinariu (on site), Sen. Res. dr. Tudor Barbu (on site) | 10 papers

ID	Session	Authors	Paper title	Presentation
3	IP I	Tudor Barbu and Irina Aflori	**Medical Imaging Text Detection and Removal Framework Combining Deep Segmentation Networks with Anisotropic Diffusion-based Models**	ONSITE
4	IP I	Ahmed Sallam and Ahmet Kaplan	**Evaluating KAN-Augmented Backbones for Bone Abnormality Detection: A Controlled Study Against a DenseNet Baseline**	ONLINE
5	IP I	Yasuhiro Iida, Yasuo Ishigure, Tasuku Mariya, Ikuma Sato and Ayahiko Niimi	**Annotator Bias Modeling in Cervical Cytology**	ONLINE
7	IP I	Alexandra Marin, Ksenia Pominova and Saumya Kareem Reni	**A Comparative Study of Feature-Based Machine Learning and CNNs for Skin Cancer Classification**	ONSITE

FRIDAY, 13 November 2026, 8:00 – 10:00, Room II (Orion)
Medical imaging and image processing (I) (IP)
Moderators: Sen. Res. dr. Silviu Bejinariu (on site), Sen. Res. dr. Tudor Barbu (on site) | 10 papers

ID	Session	Authors	Paper title	Presentation
23	IP I	Alexandru-Victor Baciu and Adina Magda Florea	**Towards Label-Efficient Medical Image Segmentation: A Comparison of Vision Transformers and Active Semi-Supervised Learning Approaches**	ONSITE
37	IP I	Dimitriana Crenganis and Tudor Barbu	**Swarm Fields: Learned-Range Diffusion as an Interpretable Global-Context Module for Brain Tumor Segmentation**	ONSITE
39	IP I	Lucian Murgu and Tudor Barbu	**Digital Topology Instability under Downsampling of Retinal Vessel Annotations: Stage Localization and an Exact Source-Provenance Decomposition**	ONSITE
59	IP I	R. Banu Prakash, V. Dhilipkumar, S. Vikas, C. Darsh Chatrani, Marius Prelipceanu, Oana Geman, Roxana Toderean and Vicoveanu Dragos	**A High-Throughput System for Accurate Bacterial Colony Enumeration Using YOLOv8-based Instance Segmentation**	ONLINE
64	IP I	Yasuhiro Iida, Yasuo Ishigure, Tasuku Mariya, Ikuma Sato and Ayahiko Niimi	**Multiple-Annotator Learning for True Label Inference**	ONLINE
81	IP I	Maria-Cristina Sima, Dan Popescu and Loretta Ichim	**Mask-Guided Whole-Image Classification of Ovarian Tumours in Ultrasound Images**	ONLINE

FRIDAY, 13 November 2026, 8:00 – 9:15, Room III (Clio)
Biomechatronics (BM)
Moderators: Prof. dr. eng. Mihaela Baritz (online), Lect. dr. bioeng. Sanziana Butnaru Moldoveanu (onsite) | 6 papers

ID	Session	Authors	Paper title	Presentation
20	BM	Esra Kara, Yaşar Ömür Özgören, Nihat Emir Taşcilar and Yavuz Öztürk	**Extending the Measurement Range and Accuracy of MagLev Density Systems through Off-Center Imaging**	ONSITE
29	BM	Antonio Cobo, Elena Villalba-Mora and Leocadio Rodríguez-Mañas	**Distinct Longitudinal Patterns of Clinical and Ecological Gait Speed During Functional Recovery: A Secondary Analysis of a 25-Week Interventional Study**	ONLINE

FRIDAY, 13 November 2026, 8:00 – 9:15, Room III (Clio)

Biomechatronics (BM)

Moderators: Prof. dr. eng. Mihaela Baritz (online), Lect. dr. bioeng. Sanziana Butnaru Moldoveanu (onsite) | 6 papers

ID	Session	Authors	Paper title	Presentation
50	BM	Tiago Cardoso Castro, José Blas Pagador Carrasco, Elena Santos Villa, Francisco Miguel Sánchez-Margallo and Juan Carlos Gómez-Blanco	**Nozzle-tip thermal stabilisation for enhanced extrusion bioprinting performance**	ONLINE
66	BM	Lucian Oancea, Chitariu Dragos, George-Gabriel. Chiriac, Gabriel Signeanu, Cătălin-Gabriel Dumitraş, Ciorap Mariana and Horodincă Mihăiță	**Compact hand prosthesis solution actuated by shape memory alloys**	ONLINE
112	BM	Septimiu Crisan and Bianca Mihaela Cotet	**MemoMed: Context-Aware Medication Dispensing with Multisensor Dose Verification**	
113	BM	Sanda Victorinne Paţurcă, Denisa Maria Tomescu, Octavian-Alexandru Hociung, Luiza Diana Bănică, Aurel Ionuţ Chirilă, Ioan Dragoş Deaconu, Ştefan Gheorghe, Margarita Aimilia Gkanatsiou and Stavros Gkanatsios	**Project-Based Robotics Learning Using a Low-Cost Planar Arm Inspired by an Upper-Limb Orthosis**	ONLINE

FRIDAY, 13 November 2026, 9:15 – 10:00, Room III (Clio)

Marine Bioengineering & Ethics (SS5)

Moderators: Assoc. Prof. dr. eng. Mihaela Hnatiuc, Assoc. Prof. dr. eng. Nicoleta Acomi (both online) | 4 papers

ID	Session	Authors	Paper title	Presentation
28	SS5	Mirel Paun and Mihaela Hnatiuc	**Non-contact Vital Signs Monitoring using Doppler Radar for Seafarers**	ONLINE
34	SS5	Sebastian Andries, Flavia-Andra Tornea and Mihaela Hnatiuc	**Active Stabilisation of Biologically Sensitive Cargo for maritime Transport: A Comparative Study of PID and Reinforcement Learning Control**	ONLINE
57	SS5	Nicoleta Acomi and Mihaela Hnatiuc	**From Physiological Activation to Navigational Response – An Exploratory Single-Participant Pilot Study**	ONLINE
61	DSS II	Catalina Ilinca Iov, Catalin Jan Iov and Nicoleta Acomi	**Personal Data Protection versus Prototypes Developed by Young Researchers**	ONLINE POSTER

107	SS5	Cristina Dragomir	**A Data-Driven Decision Support Framework for Assessing Seafarer Wellbeing**	ONLINE

FRIDAY, 13 November 2026, 11:00 – 13:00, Room I (Entresol)

Emergency Preparedness and Risk Assessment for Human Health and Performance in Dynamic Environments (SS2)

Moderators: Assoc. Prof. dr. eng. Cristian Vizitiu (on site), Sen, Res. dr. eng. Petre Cornel Min, Prof. dr. eng. Adrian Lesenciuc | 9 papers

ID	Session	Authors	Paper title	Presentation
9	SS2	Adrian Nita, Magadalena Roşu, Adina-Mihaela Struț and Mihaiela Iliescu	**Emergency Air Stretcher: Shrouded Ducted-Fan Propulsion with Multi-Element Wings, Experimental Analysis and Design Perspectives**	ONLINE
11	SS2	Federico Sottotetti, Benoît Savoini, Silvana Quaglini, Cesar Agostinis Sobrinho, Mara Gabriela Diaconu, Marilina García-Aranda, Michel Deriaz, David Beni	**WISH: Design of a Human-Supervised Digital Survivorship Platform for Early Breast Cancer Follow-Up**	ONSITE
19	SS2	Kevin Dominey, Cristian Vizitiu and Ciprian Dobre	**Biomarker Optimization in Astronaut Digital Twins: A Multimodal Framework for Personalized Space Medicine**	ONSITE
31	SS2	Petre Cornel Min, Cristian Vizitiu, Cosmin Duhan, Mirela Zivari, Silvia Nica, Claudia Florea and Denisa Seftiuc	**Before the Emergency: Climate-Informed Decision-Making under Eroding Safety Margins**	ONSITE
38	SS2	Cristian Vizitiu, Kevin Dominey, Selver Softic, Ioan Turcin and Petre Cornel Min	**COSREF-HUP: A Risk-Informed Framework for Human Performance and Requirements Engineering**	ONSITE
58	SS2	Irina Shevchenko, Catalin Alius, Dragos Serban, Ciprian Antoniu Horatiu Tanasescu, Tudor Mihai Badescu and Bogdan Mihai Cristea	**INDOVIEWER: Expanding Medical System Capabilities from the Conventional Operating Room to Dynamic, Remote, and Disaster-Affected Environments Using an AI-Assisted Fluorescence Imaging Platform**	ONLINE
88	SS2	Kevin Dominey, Cristian Vizitiu, Agata Harasymczuk, Mihaela Marin, Alexandru Ion Nistorescu, Adrian Dinculescu, Ruxandra Vizitiu, Cosmin Dugan and Catalin Alius	**The CONFIDENT Study in an ICE Analog: Preliminary System Requirements and a Computational Framework Definition**	ONSITE POSTER
133	SS2	Adrian Lesenciuc, Ancuta Rusu, Cosmin Dugan and Răzvan-Lucian Andronic	**Using Eye-Tracking Technology to Detect Altered Information: A Meta-Analysis**	ONLINE
121	SS2	Robert LeMoyne and Timothy Mastroianni	**Multidisciplinary Design Optimization for Acquisition of an Optimal Parameter Configuration for Deep Brain Stimulation**	ONLINE

FRIDAY, 13 November 2026, 11:00 – 13:00, Room II (Orion)

Emerging Technologies, Advanced Materials, and Applied Systems (SS4)

Moderators: Assoc. Prof. dr. eng. Ioana Adochiei, Prof. Eng. Teodor Lucian Grigorie, PhD Habil., Prof. Grigore Cican, PhD Eng., Habilitated Doctor | 9 papers

ID	ID	Authors	Paper title	Presentation
136	SS4	Daniela-Anamaria Dolhăscu, Dănuț Irimia, Felix-Constantin Adochiei, Marian-Silviu Poboroniuc, Gladiola-Gabriela Petroiu	**Assessing Work-Shift-Related Changes in Directed EEG Connectivity of Healthcare Professionals: Protocol and Simulation-Based Validation of NSTPDC**	ONSITE
137	SS4	Florin-Ciprian Argatu, Radu-Gabriel Zinca, Gladiola Gabriela Petroiu, Felix-Constantin Adochiei, and Ioana – Raluca Adochiei	**Electrodermal Activity Paired with Pharmacological Data for Estimating Emergence Time from General Anaesthesia: A Feasibility Study**	ONSITE
138	SS4	Ioana – Raluca Adochiei, Răzvan Marian Ion, Felix-Constantin Adochiei, and Florin-Ciprian Argatu	**Secure Distributed IIoT Architecture for Energy and Environmental Monitoring in Critical Infrastructure: A Hospital-Oriented Framework**	ONSITE
139	SS4	Radu-Călin Pahonie, Teodor Lucian Grigorie, Ciprian-Marius Larco, Ionuț-Cătălin Cucu	**Assessing the Hyperelastic Properties of Flexible Membranes for Dual-Use UAV Wings**	ONSITE
140	SS4	Radu-Călin Pahonie, Ionuț-Cătălin Cucu, Teodor-Lucian Grigorie	**Numerical Study on Hyperelastic Membranes for Small UAV Wings**	ONSITE
141	SS4	Mihai Aron, Betina-Mihaela Melinte, Robert Gabriel Lupu, Cristian Rotariu	**Lightweight Convolution Architecture for Standard Fetal Plane Classification**	ONSITE
145	SS4	Mihai Aron, Tudor-Andrei Rezmeriță, Gabriela - Gladiola Petroiu, Cristian Rotariu	**Design and Development of an Exoskeletal System for Functional Neuromotor Rehabilitation of the Hand**	ONSITE
147	SS4	Gabriela - Gladiola Petroiu, Larisa Rădeanu, Mihai Aron, Cristian Rotariu	**Design and Development of an Electronic System for the Monitoring of Uterine Contractions**	ONSITE
250	SS4	Amine Nejjari	**The AI Paradox in E-Health Platforms: From Initial Adoption to Sustained Use: A Dynamic Multi-Level Framework with Implications for Morocco (Abstract)**	ONLINE

FRIDAY, 13 November 2026, 11:00 – 13:00, Room III (Clio)

Biomaterials (BMA)

Moderators: Prof. dr. eng. Liliana Vereştiuc, Assoc. Prof. dr. Maria Butnaru (both on site) | 9 papers

ID	Session	Authors	Paper title	Presentation
51	BMA	Tiago Cardoso Castro, Juan Carlos Gómez-Blanco, Elena Santos Villa, Francisco Miguel Sánchez-Margallo and José Blas Pagador Carrasco	**Comparative analysis of cardiac patch degradation in synthetic and biological pericardial fluid**	ONLINE
52	BMA	Tiago Cardoso Castro, Juan Carlos Gómez-Blanco, Elena Santos Villa, David Patrocinio, Francisco Miguel Sánchez-Margallo and José Blas Pagador Carrasco	**Semi-Automated Dimensional Fidelity Analyser for Microfluidic Mould Fabrication**	ONLINE
70	BMA	Cristian Lupan, Mihai Brînză, Dinu Litra, Ştefan-Răzvan Anton, Ştefan Stanciu, Serghei Railean, Vasilii Creţu, Vitalie Cobzac, Boris Duda, Lukas Zimoch, Viorel Nacu, Oleg Lupan and Rainer Adelung	**Properties of Eu-doped ZnO Thin Films for VOC Biomarker Detection in Biomedical Applications and Industrial Monitoring**	ONSITE
71	BMA	Maxim Chiriac, Dinu Litra, Cristian Lupan, Ştefan-Răzvan Anton, Hesam Minaee, Saskia Rehder, Nicolai Ababii, Nicolae Magariu, Oleg Lupan, Huayna Terraschke, Tayebeh Ameri, Ştefan Stanciu and Serghei Railean	**Ag2S Nanodot-Decorated ZnO Nanostructures for Dual-Range Gas Sensing: Selective Hydrogen and VOC Detection**	ONSITE
76	BMA	Adéla Mádlová, Vladimíra Petráková, Jiří Michálek, Martin Otáhal and Václav Petrák	**Effect of Crosslinker and UV Absorber Content on the Properties of PHEMA Hydrogels**	ONLINE
89	BMA	Viorica Tonu, Nicolae Enaki, Elena Starodub, Ion Munteanu and Marina Turcan	**Cross-Validated UV–Vis Prediction of Microbial Viability for Endpoint-Specific Photonic Sensing**	ONSITE
96	BMA	Mihai Brînză, Dinu Litra, Haoyi Qiu, Tobias Giez, Lynn Schwäke, Vitalie Cobzac, Mariana Jian, Vasilii Creţu, Nicolae Magariu, Nicolai Ababii, Stefan Schröder, Oleg Lupan, Viorel Nacu, Tayebeh Ameri and Rainer Adelung	**Gas Sensing Properties of 3D ZnO Tetrapod Scaffolds Tuned via iCVD Polymer Coatings for Industrial and Biomedical Applications**	ONLINE
110	BMA	Sema Karabudak	**Shared and Dataset-Associated Transcriptional Signatures Across Three Environmental Stresses in Saccharomyces cerevisiae: A Comparative Reanalysis of Public RNA-Seq Data**	ONLINE

FRIDAY, 13 November 2026, 11:00 – 13:00, Room III (Clio)
Biomaterials (BMA)
Moderators: Prof. dr. eng. Liliana Vereştiuc, Assoc. Prof. dr. Maria Butnaru (both on site) | 9 papers

ID	Session	Authors	Paper title	Presentation
111	BMA	Andrei Alexandru Ivu, Florina Daniela Cojocaru, Isabella Nacu, Vera Balan, Andreea Luca and Liliana Verestiuc	**Composite grafts based on chitosan, alginate and hydroxyapatite for bone regeneration**	ONSITE

FRIDAY, 13 November 2026, 15:15 – 17:15, Room I (Entresol)
Decision support systems, Artificial Intelligence (III) (DSS)
Moderators: Prof. dr. eng. Dragoş Arotăriţei, (on site), Dr. eng. Virginia Săndulescu (online) | 9 papers

ID	Session	Authors	Paper title	Presentation
90	DSS III	Francesco Romano, Davide Angarano, Remo Petruccioli, Daniele Sacripante, Samuele Salvati, Sofia Cazzato, Daniela Cardone, Antonio Maria Chiarelli, Arcangelo Merla, Sandro Marrocu, Maica Tassone and David Perpetuini	**Detecting Music Performance Anxiety from Facial Thermal Imaging and Heart Rate Variability**	ONLINE
91	DSS III	Francesco Romano, Davide Angarano, Remo Petruccioli, Daniele Sacripante, Samuele Salvati, Sofia Cazzato, Daniela Cardone, Arcangelo Merla, Antonio Maria Chiarelli, Sandro Marrocu, Maica Tassone and David Perpetuini	**Decoding Cognitive-Affective Load in Performing Musicians Through Prefrontal fNIRS**	ONLINE
108	DSS III	Kateřina Dostálová and Lukáš Miklas	**Workplace Violence against Physicians: Evidence for Healthcare Safety Management**	ONLINE
109	DSS III	Alexandre Ferreira Arigoni, Caroline Rhaian da Silva Jandre and Cristiane Neri Nobre	**Digital Health Support for ADHD Family Routines: Evaluating a Mobile App with Automatic Task Prioritization with Caregivers and Children**	ONLINE
115	DSS III	Mihail-Cristian Heghea, Elena-Claudia Maftei, Silviu-Dumitru Pavăl and Vasile-Ion Manta	**PPGAnonymizer: A Privacy-Preserving Edge AI Framework for PPG Signal Anonymization**	ONSITE
122	DSS III	Adrian Timofte and Luminita Duta	**Critical Comparative Analysis of Automated Detection Methods in Dentistry**	ONLINE
99	DSS III	Simona-Narcisa Arghir, George-Călin Seriţan, Bogdan-Adrian Enache, Felix Constantin Adochiei	**Development of a Low-Cost Multisensory Game Suite for Attention Training in Children with ASD and ADHD**	ONLINE

FRIDAY, 13 November 2026, 15:15 – 17:15, Room I (Entresol)
Decision support systems, Artificial Intelligence (III) (DSS)
Moderators: Prof. dr. eng. Dragoş Arotăriţei, (on site), Dr. eng. Virginia Săndulescu (online) | 9 papers

ID	Session	Authors	Paper title	Presentation
125	DSS III	Raluca Dumache, Nina Ivanovic, Andrei Alexandru Cosma, Cătălin Daniel Căleanu, Mihai-Eronim-Octavian Ursan and Marina Adriana Mercioni	**Deep Learning Advances, Multi-Model Architectures, and Clinical Integration in Categorical Skin Disease Diagnosis and Lesion Segmentation: A Brief Review**	ONLINE
128	DSS III	Sabinne-Marie Albișteanu, Adina-Carmen Ilie, Gladiola Petroiu, Ramona Ștefăniu, Ana-Maria Turcu, Gabriela Grigoraș, Iulia-Daniela Lungu, Diana-Gabriela Constantinescu, Anca-Iuliana Pîslaru, Ioana-Dana Alexa	**Telegeriatrics in the Era of Artificial Intelligence**	ONSITE

FRIDAY, 13 November 2026, 15:15 – 17:15, Room II (Orion)
Medical devices, Instrumentation, Measurements (III) (MD)
Moderators: Prof. dr. eng. Dan Marius Dobrea (onsite), Assoc. Prof. dr. eng. Florin-Ciprian Argatu (online) | 9 papers

ID	Session	Authors	Paper title	Presentation
104	MD III	Gustas Kumeliauskas, Ana Santos Rodrigues, Ieva Žemaitienė, Vytautas Dailidėnas, Rimvydas Eitminavičius, Emilis Vitkauskas, Julija Borkytė-Šileikienė, Eglė Tamulevičiūtė-Prascienė, Raimondas Kubilius and Andrius Rapalis	**Longitudinal Agreement of Consumer Bioimpedance Devices for Total Body Water Estimation in Heart Failure Rehabilitation**	ONSITE
105	MD III	Elena-Claudia Maftei, Otilia Zvoristeanu, Gladiola Petroiu and Hariton-Nicolae Costin	**A Software Prototype for Markerless Gait Analysis using Multi-View Pose Estimation from 2D Video Sequences**	ONSITE
116	MD III	David Perpetuini, Giulia Rocco and Antonio Maria Chiarelli	**Estimating Calibrated fMRI Measures from fNIRS with Data-Driven Models: A Simultaneous fNIRS–fMRI Feasibility Study**	ONLINE
118	MD III	Octavian-Alexandru Hociung, Bianca-Alexandra Zîrnă, Florentina-Cristina Vidroiu, Alin-Alexandru Șerban, Denis Mihailovschi and Mădălin-Corneliu Frunzete	**Educational Electronic System for Monitoring Radiation Levels and Air Quality for the Radiology Rooms**	ONLINE

FRIDAY, 13 November 2026, 15:15 – 17:15, Room II (Orion)
Medical devices, Instrumentation, Measurements (III) (MD)
Moderators: Prof. dr. eng. Dan Marius Dobrea (onsite), Assoc. Prof. dr. eng. Florin-Ciprian Argatu (online) | 9 papers

ID	Session	Authors	Paper title	Presentation
123	MD III	Gislein González, Carmen Elizabeth Castaño Reyes, Didimo Pinzón Ortega and Maria De Los Angeles Ortega Del Rosario	**Designing a Stakeholder-Centered Capacity Assessment for Medical Device Ecosystems: A Methodological Approach for Panama**	ONLINE
129	MD III	Vittorio Santoriello, Carmine Giugliano, Alessandra Franco, Giuseppe Cesarelli, Maria Romano, Alfonso Maria Ponsiglione and Francesco Amato	**Sympathetic Responses to Passive Upper-Body Exoskeleton-Assisted Rehabilitation in Amyotrophic Lateral Sclerosis: An Electrodermal Activity Pilot Study**	ONLINE
130	MD III	Doina Pîslă, Bogdan Gherman, Ionuț Zima, Alexandru Pușcă, Dragoș Sebeni, Andrei Căilean, Adrian Pîslă and Damien Chablat	**Validation of a Flexible Active Instrument for Robot-Assisted Minimally Invasive Surgery**	ONLINE
132	MD III	Radu Ciorap, Cătălina Luca, Robert Fuior, Doru Andrițoi and Călin Corciovă	**From Smart Maintenance to Immersive Simulation: A Conceptual Framework for Biomedical Engineering Training in Hybrid Healthcare**	ONSITE
134	MD III	Ioan Abageru, Irina Pricop, Mihai Aron, Călin Petru Corciovă, Robert Fuior and Cristian Rotariu	**Experimental Evaluation of an AD5933-Based Impedance Measurement System Using Sarcopenia-Mimicking Phantoms**	ONSITE

FRIDAY, 13 November 2026, 15:15 – 16:15, Room III (Clio)
Environmental Protection and Health (EPH)
Moderators: Prof. dr. eng. Laura Bulgariu, Assoc. Prof. dr. eng. Raluca Hlihor (both online) | 4 papers

ID	Session	Authors	Paper title	Presentation
35	EPH	Elena Fasniuc Pereu and Laura Bulgariu	**Rifampicin Desorption from Alginate-Modified PET Fibers for Wound-Dressing Design**	ONLINE
49	EPH	Mohammed Alrayyes, Laura Bulgariu and Julien Vieillard	**Evaluation of Raw Cladophora vagabunda Biomass and Pyrolysis-Derived Biochars for Pb(II) Removal from Aqueous Solutions**	ONLINE

FRIDAY, 13 November 2026, 15:15 – 16:15, Room III (Clio)

Environmental Protection and Health (EPH)

Moderators: Prof. dr. eng. Laura Bulgariu, Assoc. Prof. dr. eng. Raluca Hlihor (both online) | 4 papers

ID	Session	Authors	Paper title	Presentation
119	EPH	Nica Aurelia, Isabelle Metaxa, Alina Antache, Ira-Adeline Simionov, Stefan-Mihai Petrea and Victor Cristea	**Synergies Between Wetlands and Aquaponic Systems for the Sustainable Provision of Ecosystem Services**	ONLINE
127	EPH	Isabelle Metaxa, Stefan-Mihai Petrea, Nica Aurelia, Ira-Adeline Simionov and Alina Antache	**Digital Health and Bioengineering in Romanian Freshwater Aquaculture: From Traditional Ponds to Intelligent RAS**	ONLINE

FRIDAY, 13 November 2026, 16:15 – 17:00, Room III (Clio)

Medical imaging and image processing (II) (IP)

Moderators: Prof. dr. eng. Corina Nafornita, Prof. dr. eng. Mircea Vaida (online) (both online) | 3 papers

ID	Session	Authors	Paper title	Presentation
100	IP II	Madalina-Sorina Popa, Dan Popescu and Loretta Ichim	**Kidney and Tumor 3D Segmentation with a Two-Stage Ensemble of Neural Networks**	ONLINE
106	IP II	Teodora Papa, Elena-Claudia Maftei, Simona Caraiman, Otilia Zvoristeanu and Stefan Daniel Achirei	**Classification of OCT Images for Age-related Macular Degeneration Diagnosis**	ONSITE
120	IP II	Paul-Gabriel Nicolae and Irina Mocanu	**From Segmentation to Supervision: FastSurfer-Derived Anatomical Priors for Localizing Alzheimer-Relevant Brain Structures in Structural MRI**	