



IEEE E-HEALTH AND BIOENGINEERING CONFERENCE - EHB 2022,  
10-th edition, Iași, Romania, November 17-19, 2022

**YOUNG RESEARCHER CONTEST**

No.	ID	Section	Young Researcher	Authors	Title	Paper
1.	102	AT	Andrei-Iulian Roman	Andrei-Iulian Roman, Marian-Silviu Poboroniuc, Danut-Constantin Irimia, Teodora Piseru and Emanuel-Andrei Piseru	Clinical Tests of a New Device Aiming to Assess and Rehabilitate the Hand in Stroke People	Oral ONSITE
2.	113	AT	Emanuel Andrei Piseru	Emanuel Andrei Piseru, Teodora Piseru, Marian Silviu Poboroniuc, Radu Ionascu, Andrei Iulian Roman, Bogdan Ignat and Cristina Grosu	Clinical Evaluation of a New Mechatronic Glove for Hand Rehabilitation	Oral ONSITE
3.	61	BB I	Iulia Darie	Iulia-Florentina Darie and Mirela Praisler	Principal Component Analysis Assessing the Potential Clustering of 2C-x and DOx amphetamines	Oral ONSITE
4.	148	BB II	Iuliana Soldanescu	Iuliana Soldanescu, Andrei Lobiuc and Mihai Dimian	Nanopore sensing for proteins involved in disease	Oral ONLINE
5.	218	BB II	Isabella Nacu	Teodora Baiu, Isabella Nacu, Loredana Elena Nita and Liliana Verestiuc	3D Bioprinted methacrylated gelatin-based scaffolds	Oral ONSITE
6.	132	BM	Oana-Andreea Chiriac	Oana Andreea Chiriac and Constantin Nitu	Research on the Analysis and Evaluation of the Performance of the Prosthetic Foot	Oral ONLINE
7.	145	BM	Junxiao Xie	Junxiao Xie, Huan Zhao and Junyi Cao	Gait diagnosis of Parkinson's disease based on piezoresistive and piezoelectric hybrid sensors	Oral ONLINE
8.	16	DSS-AI I	Maurice Gerczuk	Maurice Gerczuk, Andreas Triantafyllopoulos, Shahin Amiriparian, Alexander Kathan, Jonathan	Personalised Deep Learning for Monitoring Depressed Mood from Speech	Oral ONSITE

				Bauer, Matthias Berking and Björn Schuller		
9.	66	DSS-AI I	Emanuele Tauro	Emanuele Tauro, Alessandra Gorini and Enrico Caiani	A Novel Data Science Approach to Personas' Creation to Study Willingness to Receive Vaccination in the General Population	Oral ONSITE
10.	93	DSS-AI II	Kamila Lepkova	Kamila Lepkova, Petr Nejedly, Vladimir Sladky, Filip Mivalt, Pavel Krsek, Martin Kudr, Matyas Ebel, Petr Marusic, David Krysl, Adam Kalina, Radek Janca, Vaclav Kremen and Gregory Worrell	Electrophysiological Biomarkers of Epileptic Tissue in Human Brain Epilepsy	Oral ONLINE
11.	143	DSS-AI III	Daniele Padovano	Daniele Padovano, Arturo Martinez-Rodrigo, Jose Manuel Pastor Garcia, Jose Joaquin Rieta and Raul Alcaraz Martínez	Machine Learning Methods to Detect Obstructive Sleep Apnea under a Robust Testing Framework	Oral ONLINE
12.	200	DSS-AI IV	Oana-Isabela Știrbu	Oana-Isabela Știrbu, Serban Teodor Nicolescu, Ioana-Raluca Adochiei, Gladiola G. Petroiu, Narcis Adochiei, Florin Argatu and Felix Constantin Adochiei	Radiological Diagnosis of SARS-CoV-2 Infected Patients by Automated Classification of Chest Radiographs using DTL	Oral ONSITE
13.	153	EPH	Ionela Catalina Vasilachi	Ionela Catalina Vasilachi, Razvan Andrei Hutuliac, Maria Paiu, Mariana Minut, Petronela Cozma, Elena-Diana Comanita-Ungureanu and Maria Gavrilescu	Effects of Ni(II), Co(II), Cu(II), Zn(II) metal ions on the growth and development of alfalfa ( <i>Medicago sativa</i> L.) in agricultural soil	Oral ONLINE
14.	177	EPH	Maria Paiu	Maria Paiu, Lidia Favier, Raluca-Maria Hlihor and Maria Gavrilescu	Investigation of the Photocatalytic Degradation Efficiency of a Refractory Organic Pollutant using a Phytotoxicological Approach	Oral ONLINE
15.	202	EPH	Alina-Alexandra Ciobanu	Alina-Alexandra Ciobanu, Amina Soudani, Leila Youcef and Laura Bulgariu	Optimization of Experimental Parameters for Co(II) Ions Biosorption onto Algae Biochars	Oral ONLINE
16.	78	MD I	Ondrej Sojka	Ondrej Sojka, Martin Augustynek and Jan Kubicek	An Automatic Method for Physical Modelling of Medical Tissues: from Regional Segmentation to 3D Printing	Oral ONLINE
17.	183	MD I	Leos Tejkl	Leos Tejkl, Michal Kucera, Petr Kudrna and Jakub Rafl	System for automatic pressure control as an alternative to the infusion pressure cuff	Oral ONSITE
18.	205	MD I	Valeriia Trukhan	Valeriia Trukhan, Lenka Horakova, Josef Skola and Martin Rozanek	Effect of pressure reactivity index calculation settings on the range of the	Oral ONSITE

19.	41	MD II	Santa Fukuda	Santa Fukuda, Kou Yoshida, Tomohiro Nomoto, Tetsuya Yagi and Yuki Hayashida	optimal cerebral perfusion pressure Use-Dependent Inactivation of the Mouse Visual Cortex in Response to Microstimulation Train	Oral ONLINE
20.	47	MD II	Andrei Boiko	Andrei Boiko, Wilhelm Daniel Scherz, Maksym Gaiduk, Andrea Gentili, Massimo Conti, Simone Orcioni, Ralf Seepold and Natividad Martínez Madrid	Sleep respiration rate detection using an accelerometer sensor with special holder setup	Oral ONLINE
21.	59	MD III	Giuseppe Oliva	Filippo Laganà, Domenico De Carlo, Salvatore Calcagno, Giuseppe Oliva, Salvatore Andrea Pullano and Antonino S. Fiorillo	Modeling of Electrical Impedance Tomography for Carcinoma Detection	Poster ONLINE
22.	70	MD III	Jessica Centracchio	Jessica Centracchio	A new piezoelectric sensor for Forcemography application	Oral ONLINE
23.	152	MD IV	Maurice Gerczuk	Maurice Gerczuk, Anton Batliner, Shahin Amiriparian, Andreas Triantafyllopoulos, Franziska Heyne, Marie Klockow, Thomas Hummel and Björn Schuller	The Influence of Pleasant and Unpleasant Odours on the Acoustics of Speech	Oral ONSITE
24.	165	MD IV	Beatrix-May Balaban	Beatrix-May Balaban, Ioan Stefan Sacala, Alina-Claudia Petrescu-Nita and Radu Simen	Security issues in MCPS when using Wireless Sensor Networks	Oral ONLINE
25.	77	MD V	Diego Cajal	Diego Cajal, Mar Posadas-de Miguel, Concepción de la Cámara, Spyridon Kontaxis, Jesús Lázaro and Raquel Bailón	Smartphone PPG validation for a depression assessment protocol	Oral ONSITE
26.	87	MD V	giuseppe oliva	Giuseppe Oliva, Maria Giovanna Bianco, Filippo Laganà, Domenico De Carlo, Antonino S. Fiorillo and Salvatore Andrea Pullano	Nailfold Video Capillaroscopy for the Analysis of Microcirculation	Oral ONLINE
27.	182	MD V	Adrian Vulpe-Grigorași	Adrian Vulpe-Grigorași and Ovidiu Grigore	GAN based synthetic ECG for psychological stress	Oral ONLINE
28.	215	MD V	Serban Teodor Nicolescu	Serban Teodor Nicolescu, Oana-Isabela Stirbu, Florin Ciprian Argatu, Gladiola Petroiu, Radu Ciucu and Ioana-Raluca Adochiei	The Optimization of a Real-Time Indoor Air Quality Monitoring System	Oral ONSITE
29.	32	MI III	Tahreem Tanweer	Tahreem Tanweer, Nosheen Fatima Rana, Muhammad Jawad Khan, Iqra Saleem, Shabia Azhar, Iqra Shafique and Farid Mena	Transition Metal Doped Zinc Oxide Nanoparticles Ameliorates Antibacterial Potential of Dental Resin Composite in a Closed System In-vitro Biofilm Model	Oral ONLINE

30.	108	MIIP II	Juan Cañada	Juan Cañada, Elisa Cuello, Francisco Javier Velasco, Luis Téllez, Juan Manuel García and Julián Cabrera	Assistance to lung cancer detection on histological images using Convolutional Neural Networks	Oral ONLINE
31.	20	MI I	Constantin Laşmanschii	Ion Bahnarel, Leonid Culiuc, Alexandru Micu, Alexandr Ermicev	Air Disinfection System SDMA UVAC-250 NON-OZONE	Oral ONSITE
32.	24	SP I	Evdochim Lucian	Lucian Evdochim, Dragos Dobrescu, Lidia Dobrescu, Alexandru Florin Săvulescu and Stela Halichidis	Dicrotic Notch Detection in Various Photoplethysmography Signals Morphologies	Oral ONLINE
33.	39	SP I	Shinjiro Yamamasu	Shinjiro Yamamasu and Yuki Hayashida	Epileptic Electrocorticogram Signal Detections with Patient-Specific Quantized Convolution Neural Network Models on the Edge TPU device	Oral ONLINE
34.	58	SP I	Yuwei Zhang	Yuwei Zhang, Aihua Gu, Zhijun Xiao, Zhipeng Cai, Chenxi Yang, Jianqing Li and Chengyu Liu	Fetal Heart Rate Extraction from Abdominal Electrocardiography Recordings Based on Template Subtraction and Adaptive Threshold Algorithm	Oral ONLINE
35.	67	SP I	Jessica Centracchio	Jessica Centracchio and Vincenzo Muto	Heartbeats Localization in Forcecardiography Signals Via Template Matching	Oral ONLINE
36.	118	MIIP II	Ştefana Duţă	Ştefana Duţă and Alina Elena Sultana	Volumetric Segmentation of Brain Tumors Using Neural Networks	Oral ONSITE
37.	126	SP II	Alexander Gebhard	Alexander Gebhard, Shahin Amiriparian, Andreas Triantafyllopoulos, Alexander Kathan, Maurice Gerczuk, Sandra Ottl, Valerie Dieter, Mirko Jaumann, David Hildner, Patrick Schneeweiss, Inka Rösel, Inga Krauss and Björn Schuller	Towards Heart Rate Categorisation from Speech in Outdoor Running Conditions	Oral ONSITE
38.	162	SP II	Mihai Dumitrescu	Mihai Dumitrescu and Dragoş Daniel Taralunga	Portable multiclass classification of epileptic seizures using electroencephalogram signals	Oral ONLINE
39.	189	SS 4	Maryam Ouhami	Maryam Ouhami, Youssef Es-Saady, Mohammed El Hajji, Raphael Canals and Adel Hafiane	Meteorological Data and UAV Images for the Detection and Identification of Grapevine Disease Using Deep Learning	Oral ONLINE
40.	197	SS 5	Laura Elena Dorobanţu	Laura Dorobantu, Ruxandra Paraschiv, Titi Paraschiv, Florin Ciprian Argatu, Cosmin Banica	The Localization of the Epileptogenic Zone from the Intracranial	Oral ONSITE

				and Felix Constantin Adochiei	Electroencephalogram	
41.	213	SS 5	Oana-Isabela Știrbu	Cosmin Banica, Ruxandra Paraschiv, Serban Teodor Nicolescu, Oana-Isabela Știrbu, Stefana Duta, Mihai Tutoveanu and Ioana-Raluca Adochiei	Computational Method of Describing Persons After Processing EEG Waves	Oral ONSITE
42.	214	SS 5	Diana Maria Cotorobai	Diana Maria Cotorobai, Cosmin Banica, Mihai Tutoveanu, Ruxandra Paraschiv, Stefana Duta, Ionut Manea and Ioana-Raluca Adochiei	Review of the evaluation methods for stress, anxiety, and depression levels	Oral ONLINE
43.	123	TM	Elena Paraschiv	Elena-Anca Paraschiv, Cristian-Mihail Petrache, Ovidiu Bica and Ana-Mihaela Vasilevschi	Fall Detection System: Continuous in-Home Monitoring of Parkinson's Patients	Oral ONLINE
44.	144	SP II	Ionut Manea	Ionut Manea and Dragos Taralunga	Fetal ECG extraction from abdominal signals using empirical wavelet transform	Oral ONSITE

	REGULAR SESSIONS
AT	Assistive technologies for people with disabilities
BB	Biomaterials and Biotechnologies
BM	Biomechanics
SP	Biomedical Signal Processing
DSS-AI	Decision support systems, Artificial Intelligence, Bioinformatics
EPH	Environmental Protection and Health
MD	Medical devices, Instrumentation, Robotics
MIIP	Medical imaging and Image processing
MI	Medicine and Informatics
TM	Telemedicine, e/m/p-Health, Wearable systems II

	<b>SPECIAL SESSIONS/WORKSHOPS</b>
<b>SS1</b>	<b>Design of Devices and Methods for Clinical Practice</b>
<b>SS2</b>	<b>Applied Informatics towards Smart Healthcare Ecosystems</b>
<b>SS3</b>	<b>Workshop: Advances in Motor-recovery Neurotechnology by means of Brain-Computer Interfaces, Functional Electrical Stimulation and Exoskeletons</b>
<b>SS4</b>	<b>Sensors, Data and AI for Crop Health Monitoring</b>
<b>SS5</b>	<b>Determining the Value of Emotional and Behavioural Characteristics by Processing the Biosignals of the Human Body</b>
<b>SS6</b>	<b>Medicine and Informatics</b>