

IEEE E-HEALTH AND BIOENGINEERING - EHB 2021, 9-th edition , Iași, Romania, November 18-19, 2021

YOUNG RESEARCHER CONTEST

No.	ID	Section	Authors	Title	Oral/Poster
Assistive Technologies for People with Disabilities - AT THURSDAY, 18 November, 11:45 – 13:45, Room IV					
9.	173	AT	Leo Cespedes-Simangas, Cristhian Uribe-Obregon and Michael Cabanillas-Carbonell	Mobile application to improve the therapy process in children with delayed speech onset	Oral

Environmental protection and Health I – EPH I THURSDAY, 18 November, 9:30 – 11:30, Room IV					
1.	35	EPH I	Mariana Minut, Petronela Cozma, Mihaela Rosca, Ionela Catalina Vasilachi, Raluca Maria Hlihor, Mariana Diaconu and Maria Gavrilescu	Recovery of Valuable Heavy Metals from Polluted Soil Using Phytomining Process - A New Challenge for Earning Secondary Raw Materials and Health Risk Reduction	Poster
2.	83	EPH I	Bianca Azanfire and Laura Bulgariu	Thermodynamic studies of Pb(II) ions adsorption from aqueous solutions by clay adsorbent	Oral
3.	101	EPH I	Vasilachi Ionela Catalina, Minut Mariana, Betianu Camelia and Gavrilescu Maria	Investigation of the toxic effects of lead on maize germination and growth (Zea mays)	Oral

Environmental protection and Health II – EPH II FRIDAY, 19 November, 11:15 – 13:30, Room II					
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Decision support systems, AI, Bioinformatics, Learning I - DSS-AI I THURSDAY, 18 November, 9:30 – 11:30, Room II					
1.	5	DSS-AI I	Victor Motogna, Georgina Lupu-Florian and Eugen Lupu	Strategy for Affective Computing Based on HRV and EDA	Oral
2.	25	DSS-AI I	Bushra Alsaadi and Dimah Alahmadi	The Use of Persona Towards Human-Centered Design in Health Field: Review of Types and Technologies	Oral
3.	59	DSS-AI I	Laura Chirilă, Darius-Luca Cristea and Ovidiu Baniăș	CXR-based diagnosis of COVID-19 using Deep Learning with CycleGAN for Data Augmentation	Oral

4.	67	DSS-AI I	Alexandru-Toma Andrei and Ovidiu Grigore	Unsupervised machine learning algorithms used in deforested areas monitoring	Oral
5.	8	DSS-AI I	Sandy Gutierrez-Espinoza and Michael Cabanillas-Carbonell	Machine learning analysis for cervical cancer prediction, a systematic review of the literature	Poster

Decision support systems, AI, Bioinformatics, Learning II - DSS-AI II

THURSDAY, 18 November, 11:45 – 13:45, Room II

1.	69	DSS-AI II	Alicia Falcon-Caro and Saeid Sanei	Diffusion Adaptation for Crowd Analysis	Oral
2.	84	DSS-AI II	Kristijan Cincar and Todor Ivascu	Rule-based health status evaluation system	Oral

Decision support systems, AI, Bioinformatics, Learning III - DSS-AI III

FRIDAY, 19 November, 9:00 – 11:00, Room I

1.	121	DSS-AI III	Maftei Alexandru Adrian, Mutescu Partemie Marian, Popa Valentin, Petrariu Adrian Ioan and Lavric Alexandru	Internet of Things healthcare application: A blockchain and LoRa approach	Oral
2.	145	DSS-AI III	Beatrix-May Balaban, Ioan Stefan Sacala, Alina-Claudia Petrescu-Nita, Florin Pop and Andreea Udrea	A Cyber-Physical Systems approach for Health Care Prediction	Oral

Decision support systems, AI, Bioinformatics, Learning IV - DSS-AI IV

FRIDAY, 19 November, 11:15 – 13:30, Room I

1.	194	DSS-AI IV	Chems Eddine Louahem M'Sabah, Ahmed Bouziane and Youcef Ferdi	A Survey on Deep Learning Methods for Cancer Diagnosis Using Multimodal Data Fusion	Oral
2.	188	DSS-AI IV	Tord Hettervik Frøland, Ilona Heldal, Gry Sjøholt and Elisabeth Ersvær	Merging 360°-videos and Game-Based Virtual Environments for Phlebotomy Training: Teachers and Students View	Oral

Medical devices, Instrumentation, Modeling/Simulation, Robotics I - MD I

THURSDAY, 18 November, 9:30 – 11:30, Room I

1.	163	MD I	Simon Walzel and Karel Roubik	Decrease in brain oxygenation is significantly less pronounced than decrease in SpO2 during short-time breathing experiments in simulated avalanche snow	Oral
2.	19	MD I	Vera Lobanova and Lesya Anishchenko	Rotations Recognition in Sleeping Humans by Means of Bioradiolocation and Machine Learning	Oral
3.	24	MD I	Ali Ibrahim, Kabalan Chaccour, Amir Hajjam El Hassani and Georges Badr	Fall Detection Algorithm using Body Angle for Accurate Classification of Falls and ADLs	Oral

Medical devices, Instrumentation, Modeling/Simulation, Robotics II - MD II
THURSDAY, 18 November, 11:45 – 13:45, Room I

1.	39	MD II	Leos Tejkl, Petr Kudrna, Lukas Poviser, Alzbeta Saboukova and Jakub Rafl	Patient Simulators in Medical Education: New Enhancements II	Oral
2.	47	MD II	Adrian Vulpe-Grigorași and Ovidiu Grigore	A neural network approach for anxiety detection based on ECG	Oral
3.	56	MD II	Mario Formisano, Luigi Iuppariello, G. Mirone, Giuseppe Cinalli, Antonio Casaburi, Pasquale Guida and Fabrizio Clemente	3D printed anatomical model for surgical planning: a pediatric hospital experience	Oral
4.	58	MD II	Alexandru Cismas, Ioana Matei and Decebal Popescu	Condensed Survey on Wearable IoT Devices	Oral

Medical devices, Instrumentation, Modeling/Simulation, Robotics III - MD III
THURSDAY, 18 November, 14:00 – 16:00, Room III

1.	111	MD III	Severin Ionut	A Brief Review of Using the Inertial Sensor to Determine the Driver Head Posture	Oral
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Medical devices, Instrumentation, Modeling/Simulation, Robotics IV - MD IV
FRIDAY, 19 November, 9:00 – 11:00, Room III

1.	138	MD IV	Cosmin Dragos Dugan, Ioanina Parlatescu, Adrian Dinculescu and Cristian Vizitiu	Therapeutic potential of noninvasive transcranial magnetic stimulation in burning mouth syndrome	Oral
2.	158	MD IV	Sarah Solbiati, Andrea Buffoli, Valentino Megale, Gianfranco Damato, Bruno Lenzi, Giacomo Langfelder and Enrico Gianluca Caiani	Detecting Heart Rate From Virtual Reality Headset-Embedded Inertial Sensors: a Kinetic Energy Approach	Oral

Medical devices, Instrumentation, Modeling/Simulation, Robotics V - MD V
FRIDAY, 19 November, 13:45 – 15:45, Room I

1.	164	MD V	Theodora Chivu and Dragos Daniel Taralunga	Wearable Biopotential Acquisition Module For mHealth Systems	Oral
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2.	167	MD V	Turgay Kalinov, Alexander Zlatarov, Kristina Bliznakova and Sivo Daskalov	Training of basic laparoscopic skills on Lap Mentor	Oral
3.	177	MD V	Oana Andreea Ruşanu	The Development of a Brain-Computer Interface for Controlling a Robotic Arm and a Mobile Device by Using the Voluntary Eye Blinking	Oral
4.	209	MD V	Lenka Horakova, Petr Kudrna and Karel Roubik	Dynamic changes of perfusion index during hypoxemia and hypercapnia in outdoor experiments	Oral

Biomedical Signal Processing I – SP I
THURSDAY, 18 November, 9:30 – 11:30, Room III

1.	102	SP I	Jakub Šebek, Hana Schaabova and Vladimir Krajca	EEG Classification by Minimalistic Convolutional Neural Network Utilizing Context Information	Oral
2.	119	SP I	Alba Díaz-Martinez, Rogelio Monfort-Ortiz, Yiyao Ye-Lin, Javier Garcia-Casado, Félix Nieto-del-Amor, Vicente José Diago-Almela, Iria Rey-Ferreira, Mar Nieto-Tous and Gema Prats-Boluda	Comparative Study of Uterine Myoelectrical Response to Labour Induction Drugs in Nulliparous and Parous Women with Different EHG Analysis Techniques	Oral
3.	140	SP I	Aikaterini Vraka, Fernando Hornero, Aurelio Quesada, Flavia Ravelli, Raul Alcaraz Martínez and Jose Joaquin Rieta	Parallel Study on Surface and Invasive Recordings Across Catheter Ablation Steps of Paroxysmal Atrial Fibrillation	Oral
4.	143	SP I	Aikaterini Vraka, Vicente Bertomeu González, Fernando Hornero, Leif Sörnmo, Raúl Alcaraz Martínez and José Joaquin Rieta	Alternative Time-Domain P-wave Analysis for Precise Information on Substrate Alteration After Pulmonary Vein Isolation for Atrial Fibrillation	Oral
5.	76	SP I	Ana-Luiza Rusnac and Ovidiu Grigore	EEG preprocessing methods for BCI imagined speech signals	Oral

Biomedical Signal Processing II – SP II
THURSDAY, 18 November, 14:00 – 16:00, Room I

1.	147	SP II	Aikaterini Vraka, Vicente Bertomeu González, Fernando Hornero, Philip Langley, Raul Alcaraz Martínez and Jose Joaquin Rieta	Are Coronary Sinus Features Reflecting the Effect of Catheter Ablation of Atrial Fibrillation as P-waves Do?	Oral
2.	159	SP II	Jesús Cano, Aurelio Quesada, Flavia Ravelli, Roberto Zangróniz, Raúl Alcaraz and José J. Rieta	Novel Photoplethysmographic and Electrocardiographic Features for Enhanced Detection of Hypertensive Individuals	Oral

3.	165	SP II	Jesús Cano, Lorenzo Fácila, Philip Langley, Roberto Zangróniz, Raul Alcaraz Martínez and Jose Joaquin Rieta	Application of Deep Neural Network Models for Blood Pressure Classification based on Photoplethysmographic Recordings	Oral
4.	166	SP II	Ana Beatriz R. Massaranduba, Bruno F. O. Coelho, Leonardo R. Sampaio and Rodrigo P. Ramos	High order frequency features as emotion discriminators	Oral
5.	183	SP II	Roberto Tornero, Lorenzo Fácila, Vicente Bertomeu-González, Roberto Zangróniz, Raúl Alcaraz and José J. Rieta	Is Short-Term Heart Rate Variability Good Enough to Predict Vascular Events in Hypertensive Patients?	Oral

Medicine & Informatics I - MI I
THURSDAY, 18 November, 14:00 – 16:00, Room II

1.	100	MI I	Ana Balan, Monica Dugaesescu, Ioana Bejan, Oana Brinduse, Corina Ferdoschi, Simona Bonciu, Diana Iacob and Elena Poenaru	Lung Cancer Variants in Romanian population – a Genome-Wide Association Study	Oral
2.	106	MI I	Petru Ciobanu, Norin Forna, Andrian Panuta, Alexandru Covaciu, Victor Niculescu, Bogdan Puha and Paul-Dan Sirbu	The opportunity of using platelet concentrates as an adjuvant tool for in-hospital management of bone defects	Poster
3.	115	MI I	Ștefan-Dragoș Tîrnovanu, Liliana Savin, Norin Forna, Daniel Scolobiuc, Iustin Antonescu, Mihnea-Theodor Sîrbu and Paul-Dan Sîrbu	Custom-Made Cutting Blocks for Total Knee Arthroplasty: two case reports and preliminary results	Oral

Medicine & Informatics II - MI II
FRIDAY, 19 November, 11:15 – 13:15, Room III

Medicine & Informatics III, Dental Medicine - MI III
FRIDAY, 19 November, 13:45 – 15:45, Room II

1.	219	MI III	Cristina-Maria Stancioi, Radu Adrian Munteanu, Vlad Muresan, Iulia Clitan and Olimpia Bunta	System for Detecting the Position of a Tooth in Relation to a Fixed Reference	Poster
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Medical Imaging and Image Processing I - MIIP I
THURSDAY, 18 November, 11:45 – 13:45, Room III

1.	11	MIIP I	Manuel Pérez-Pelegrí, Josep Puig and Juan Sebastián Ruiz-Constantino	Acute infarct volume prediction based on CT perfusion metrics derived from an automated software package using machine learning models	Oral
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Medical Imaging and Image Processing II - MIIP II**FRIDAY, 19 November, 13:45 – 15:45, Room IV**

1.	128	MIIP II	Mihai Boeru, Andrei Racoviteanu and Corneliu Florea	Facial Expressions Recognition by Structuring the Embeddings Space	Oral
2.	130	MIIP II	Brigitte Schweisthal and Mihaela Lascu	Multiple Convolutional Neural Networks for Diabetic Retinopathy Classification	Oral

Telemedicine, e/p/m-health - TM**FRIDAY, 19 November, 9:00-11:00, Room IV**

1.	193	TM	Danna Gabriel-Cheng, Christopher Tafur-Morales and Michael Cabanillas-Carbonell	Mobile app to make better the obesity prevention process in adolescents	Oral
2.	93	TM	Mario Formisano, Giuliana Faiella, Maria Erinna Vitullo, Anna Dolcini and Fabrizio Clemente	Quality management in design telemedicine service for children in home mechanical ventilation	Oral
3.	123	TM	Elena Paraschiv, Marilena Ianculescu, Ovidiu Bica and Alexandru Sipica	Underpinning improved outcomes through preventative patient care models based on remote monitoring and AI	Poster
4.	160	TM	Elena-Anca Paraschiv, Eleonora Tudora, Eugenia Tirziu and Adriana Alexandru	IoT & Cloud Computing-based Remote Healthcare Monitoring System for an Elderly-Centered Care	Oral

Biomaterials and Biotechnologies, BB I**FRIDAY, 19 November, 9:00-11:00, Room II**

1.	21	BB I	Delia Bianca Deaconescu and Simona Miclaus	Assesing Power Losses in Magnetic-Dielectric Tissues Exposed to Microwaves: Commercial Computational Software Capabilities and Limits	Oral
2.	66	BB I	Alina Elena Sandu, Aurica Chiriac, Alina Gabriela Rusu, Alexandru Mihail Serban, Loredana Elena Niță and Elvira Gille	New polymeric particles loaded with sea buckthorn essential oil	Oral

Biomaterials and Biotechnologies, BB II**FRIDAY, 19 November, 11:15-13:30, Room IV**

1.	149	BB II	Jorge Loureiro, Sónia P. Miguel, Víctor P. Galván-Chacón, David Patrocinio, Francisco M. Sánchez-Margallo, J. Blas Pagador, Maximiano P. Ribeiro and Paula Coutinho	Swelling analysis of thermal and chemical crosslinked konjac glucomannan/gellan gum cardiac patch	Oral
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Biomaterials and Biotechnologies, BB III
FRIDAY, 19 November, 13:45-15:45, Room III

1.	65	BB III	Alexandra Croitoriu, Loredana Elena Niță, Alina Gabriela Rusu, Andrei Cimponeriu and Aurica Chiriac	Supramolecular gels based on amino acids	Oral
2.	186	BB III	Iuliana Soldanescu and Cezara Bucataru	Electrophysiological characterization of transport processes through protein nanopores	Oral
3.	196	BB III	Vlad Constantin Ursachi, Cosmin Teodor Mihai, Andrei Nastuta, Cristina Daniela Dimitriu, Liliana Verestiuc and Vera Balan	In Vitro Evaluation of Paclitaxel Loaded Magnetic Nanoparticles for Breast Cancer Therapy	Oral
4.	17	BB III	Alexandru Tulica, Corneliu Druga and Ionel Serban	Printing of dental works from Cobalt-Chrome metal powder and composite material	Oral
5.	226	BB III	Roxana Donea, Isabella Cobzariu, Maria Butnaru and Liliana Verestiuc	Methacrylated collagen/chitosan - based hydrogels as scaffolds for soft tissue engineering	Oral

Biomechanics, BM

THURSDAY, 18 November, 14:00-16:00, Room IV

1.	132	BM	Oana Andreea Chiriac, Doina Bucur, Mazen Elfarra and Yaren Şachir	Analysis and evaluation of hip disarticulation prosthesis based on computerized metrics. Case study	Oral
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SESSIONS

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

IMPORTANT !

*Young researcher < 30 years old, first author of a paper

** The authors who want to participate in this contest have to be first authors and present "orally" (10 minutes) and live their papers.