

POSTER

2024

28th International Student Scientific Conference Poster 2024

Results of the Best Poster Award

Biomedical Engineering

1. Emily Reinhold: Optimised Electrode Arrangement for 3D Image Reconstruction Using a Miniature EIT Sensor
- 1 Daniel Blase, Pu Xie: Body Surface Region Detection in Wound Images using Deep Learning
- 1 Vladimíra Solarová, Šimon Walzel: Effect of short-term hypoxia and hypercapnia on perfusion index
- 2 Lukáš Rak: Analysis of gas leakage from breathing circuit during outdoor breathing experiments
- 3 Jannik Prüßmann: Simulation of Physiological Motion Artifacts in Capacitive Electrocardiography

Communications

1. Tizian Dege, Ahmad Khalil: Enabling adaptive perception model training for adverse conditions
2. Robert Schmitt, Carolin Breuer: The Influence of Realistic Background Noise on Auditory Selective Attention

Electronics and Instrumentation

1. Hendrik Stork: Influence of Battery Cell Parameters on its High Frequency Impedance
2. Petr Zakopal, Jakub Kucera, Filip Baum:
3. Antonín Gazda: Condenser Microphone with Sigma-Delta Conversion
4. David Ringsmuth: Condenser microphone with segmented fixed electrode

History of Science and Technology

1. Martin Dominik Hrtus: Advertising presentation of household electrical appliances in the Czechoslovak press in the 1930s
1. Jorge Alonso Rodriguez Ortiz: Business is business: controversies surrounding Colombia's arms purchase from Škoda in 1934-1936
2. David Knespl: Cast Iron Tower Clockworks Manufacturing and the Role of Prague Polytechnic
2. David Pazdera: Topographic Representation of Changes in the Dislocation of Czechoslovak Small Arms Production in 1945–1968
3. Nico Blass, Florian Voss: Fostering Success: The History of Incubators
3. Daniel Kyselka: Military Chemical Institute 1919-1939
4. Amani Mansouri: Computerization in Tunisia and Engineer Training (1980-2005): Archival Study at the University of Lorraine, Nancy.

Informatics and Cybernetics

1. Thorsten Tegetmeyer-Kleine: Enhancing Nano-CT Image Analysis of Lithium-Ion Batteries through CycleGAN-based Semantic Segmentation with Limited Labeled Data

Management

1. Marek Miltner, Ondřej Štogl: Analysis of Electric Vehicle Public Charging Patterns in Prague
2. Wojciech Belch: Property Ownership and Attitudes towards Energy Sharing in Czechia
3. Ondřej Štogl, Marek Miltner: Vehicle-to-Grid: A Potential Keystone for Grid Flexibility
4. Martin Tichý, Marek Miltner, Ondřej Štogl: Risks and Barriers Overview of Power Purchase Agreements in the European Context

Natural Sciences

1. Aneta Furmanová: Acoustic transmission modelling in locally periodic structures employing machine learning
2. Sherran Raj Arangkulavan: Pseudo-2-dimensional (P2D) Modeling of Electrochemical Prelithiation
3. Jana Berger, Julia Seitz: How effortful is listening for different background noises?

Power Engineering

1. Filip Baum: Dual-Inverter Topology: Capabilities, Limitations and Perspectives
2. Tim Falkenstein: A Comparative Analysis of Parallel and Serial Configurations for Lithium-Ion Batteries in Home Energy Storage Systems
3. Kusuma Priya Krovi: Reduction of Negative Voltage Spike for SiC based MOSFET Circuit

Rohde Schwarz Award

Hendrik Stork: Influence of Battery Cell Parameters on its High Frequency Impedance