

May 28, 2025

Session II

ELECTRONICS & PHOTONICS

Committee: TBD

8:30 - 11:30

- 1. Acoustic defectoscopy method as new approach to evaluate parameters of Li-ion batteries**
Lukáš Gardian, Róbert Dubovský and Miroslav Mikolášek
- 2. Neural Network-Based Calibration of Electrical Models for MOSFETs and Diode**
Mohammed Amira and Aleš Chvála
- 3. Gas sensor array signal processing using Kolmogorov-Arnold Networks**
Filip Gerhát, Vratislav Režo and Michal Mičjan
- 4. Influence of a Working Temperature on the Performance Parameters of DNTT Organic Field-Effect Transistors**
Ondrej Kokavec, Michal Mičjan, Tomas Vincze and Michal Hanic
- 5. Degradation Behavior of Asymmetrical Trench SiC MOSFETs Under Repetitive Short-Circuit Stress**
Krisztián Kovács, Michal Minárik, Jozef Kozárik and Juraj Marek
- 6. Pilot Study on a Chest-Worn Device for Multimodal Stress Monitoring**
Erik Foltán, Erik Vavrinský, Luboš Černaj, Diana Viťazková, Helena Kosnáčová, Martin Berki and Michal Mičjan
- 7. Theory of electronics - Development of Ga₂O₃ transistors for applications in kV range**
Sai Gurukrishna Vadlamudi, Milan Ťapajna and Michal Sabota

8. Investigation of the material properties of thin epitaxial Ga₂O₃ films grown by liquid-injection MOCVD on (111) Si with AlN buffer

Miriám Krettová, Kristína Hušeková, Wosko, Edmund Dobročka, Zdenko Zápražný, Iryna Kozak, Hemendra Chouhan, Fridrich Egyenes, Ondrej Pohorelec, Milan Ťapajna, Regina Paszkiewicz and Filip Gučmann

9. Application of an advanced photoplethysmographic sensor for Parkinson's disease diagnostics

Helena Kosnáčová, Diana Viťazková, Erik Foltán, Martin Berki, Michal Micjan, Filip Gerhat and Erik Vavrinský

10. Electrical analysis of WS₂ film for gas sensing application

Naman Kumar, Ivan Hotový, Magdaléna Kadlečíková, Ondrej Pohorelec, Vlastimil Řeháček and Dagmar Gregušová

11. *Implementing Real-Time Embedded ECG Biometric Classification on STM32H7*

Martin Berki, Erik Vavrinsky and Michal Micjan

14:00

Award Ceremony (AB-150)