



**ELECTRICAL ENGINEERING AND MECHATRONICS CONFERENCE EEMC'19**

*Thursday, 9<sup>th</sup> of May 2019*

*Location: Faculty of Engineering, 4028 Debrecen, Ótemető u. 2-4.  
Lecture hall U 001*

*Conference Chairman: Dr. Géza HUSI*

**PROGRAM:**

**8:30 – Registration**

**09:00 – Opening**

**PLENARY SESSION (Lecture hall U 001)**

**Chairman: Dr. Géza HUSI (University of Debrecen, Hungary)**

**09:30 - 10:00: Mr. Lukas JURANEK, Managing Director at Continental:** Factory of Tomorrow.

**10:00 - 10:30: Dr. Csaba SZÁSZ (Romania):** The Intelligent Space Modeled as a Cyber-Physical System.

**10:30 - 10:45: Bence KOVÁCS (Hungary):** Integrated Intelligent Institute in the Perspective of Internet Security.

**10:45 – 11:00: Aram NASEER (Syria), Dr. Géza HUSI (Hungary):** The effect of changing the customized dataset under a fixed deep learning detection model.

**11:00 - 11:30: Coffee Break**

**I. POWERING THE SMART SYSTEMS WITH CONTROL TECHNIQUES AND ENERGY EFFICIENCY SESSION (Lecture hall U 001)**

**Chairman: Husam Abudlkareem ALMUSAWI (University of Debrecen, Hungary)**

**11:30 - 11:50: Dr. Csaba SZÁSZ (Romania):** Solar Tracker Platform for Energy Efficiency Improvement of Photovoltaic Panels.

**11:50- 12:10: Ahmad ALSEBAI (Syria), Syeda Adila AFGHAN (Hungary):** Smart protector & Auto starter control unit for diesel.

**12:10 - 12:30: Addisu Tigabu ALEMAYEHU (Ethiopia):** Development of Ice Removal Method for Train Contact Wires.

**12:30 – 12:50: Dr. Nasar Aldian SHASHOA, Abdurrezag ELMEZUGHY, Ibrahim JLETA and Nasser EKREEM (Libya):** System Identification and Model Validation of Recursive Least Squares Algorithm for Box–Jenkins Systems.

**13:00 – 14:30: Lunch Break**

**II. TECHNOLOGICAL ADVANCEMENT OF TOOLS AND TECHNOLOGIES SESSION (Lecture hall U 001)**

**Chairman: Timotei István ERDEI (University of Debrecen, Hungary)**

**14:30 – 15:00: Erzsébet CSIBI - Account Manager CEE at Pearson Ltd.**

**15:00 – 15:20: Beatrix Katalin SZABÓ (Hungary):** Rigged hand model for the Blender Game Engine.

**15:20 – 15:40: Dániel SALÁNKI, Kornél SARVAJCZ (Hungary):** NI LabVIEW Based Camera System Used for Gait Detection.

**15:40 – 16:00: István KOVÁCS, Kornél SARVAJCZ (Hungary):** Modification and modernization of the FESTO MPS station by extending it to cyber space.

**16:00 – 16:20: Ammar ALSABBAGH (Syria), Dr. Géza HUSI (Hungary):** Python-Based Data Analysis Tool for a 6-DoF Industrial Robot

**19:00 – Department of Mechatronics's Evening sponsored by Continental – Only for Guest with Invitation**



**ELECTRICAL ENGINEERING AND MECHATRONICS CONFERENCE EEMC'19**

*Friday, 10<sup>th</sup> of May 2019*

*Location: Faculty of Engineering, 4028 Debrecen, Ótemető u. 2-4.  
Lecture hall U 001*

*Conference Chairman: Dr. Géza HUSI*

**PROGRAM:**

**III. AN ERA OF INTERNET OF THINGS (IoT) AND INDUSTRY 4.0 SESSION (Lecture hall U 001)**

**Chairman: Syeda Adila AFGHAN (University of Debrecen, Hungary)**

**09:00 - 09:20: Aram NASEER (Syria), Dr. Péter Tamás SZEMES (Hungary):** Object detection and data collection using PCA in LabVIEW.

**09:20 – 09:40: Nazrin RZAYEVA (Azerbaijan):** Waste Recycling Process Control with Industry 4.0 Expectations.

**09:40 – 10:00: Barbara BORZ, László KRUCSÓ, Timotei István ERDEI, Kapusi Tibor PÉTER and Géza HUSI (Hungary):** Designing an ATmega328 microcontroller based gesture-controlled IoT UGV unit and creating a camera system using Linux distribution.

**10:00 – 10:30: Coffee Break**

**IV. ROBOTICS AND AUTONOMOUS SYSTEMS SESSION (Lecture hall U 001)**

**Chairman: Dr. Csaba SZÁSZ (Technical University of Cluj, Romania)**

**10:30 – 10:50: Rasul SAMADZADE (Azerbaijan):** Inverse kinematics and Singularity calculation of 6DOF robot using Artificial Neural Networks.

**10:50 – 11:10: Sarolta OCSENÁS, Zsombor FÜLEKI, Timotei István ERDEI, Attila SZÁNTÓ, Gusztáv Áron SZIKI and Géza HUSI (Hungary):** Development of an IoT based Smart meteorological station & horticultural irrigation system's controller using a Raspberry Pi Linux server.

**11:10 – 11:30: Dan-Ioan ȚARCĂ, Moldovan Octavian ALIN, Remus GHINCU, Moldovan Ovidiu GHEORGHE, Traian COSTEA, Polojințef Corbu NICOLAE (University of Oradea):** Installing a high capacity sputtering system at University of Oradea.

**12:30 - Lunch**