

Final Program

AIS 2022 Final Program ([pdf](#))

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| 9:30 | Registration | Óbuda University, Room Kálmán Kandó |
| 9:45 | Press Conference | Room Kálmán Kandó |
| 10:00 | Opening Ceremony | Room Kálmán Kandó |
| 10:00 | Welcome Speech I <i>György Györök</i> | General Chair of the Conference |
| 10:15 | Welcome Speech II <i>András Cser-Palkovics</i> | Székesfehérvár City Council |
| 10:30 | Plenary Section | Room Kálmán Kandó |
| 10:30 | Opening of the Plenary Section | <i>József Halász</i> |
| 10:35 | Plenary I: How US spy satellite imagery from the 1960s helps us monitor the changing environment | <i>Gábor Péter Molnár</i> |
| 11:00 | Plenary II: Robust localization methods using voting algorithms | <i>Gyula Simon</i> |
| 11:25 | Closing of the Plenary Section | <i>József Halász</i> |
| 12:00 | Lunch Break | Room 27 |
| 13:00 | Oral and Poster Sessions | |
| 13:00 | Applied Informatics I. | Room Kálmán Kandó |
| 14:15 | Poster Sessions and Coffee Break | Aula |
| 14:45 | Applied Informatics II. | Room Kálmán Kandó |
| 16:00 | Closing Ceremony | Room Kálmán Kandó |

Detailed Program

ORAL Session I.

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| 13:00 | Applied Informatics I. <i>Chair: Tamás Jancsó</i> | Room Kálmán Kandó |
| 13:00 | Solar flare effect on microelectronic circuits assessed for Wigner's disease | László Sajó-Bohus and Monika Pogátsnik |
| 13:15 | Drought monitoring mapping by using satellite remote sensing: Study Case | Malgorzata Veróné Wojtaszek, Erick Noboa and György Eigner |
| 13:30 | Long Term Rumen Temperature Analysis of Dairy Cattle with Help of Bolus Sensor | Éva Hajnal, Gergely Vakulya and Péter Udvardy |
| 13:45 | Semi-Automatic Detection and Tracking of Growing Mushrooms on Image Sequences | Gyula Simon, Gergely Vakulya, Sándor Tarsoly and Péter Galambos |
| 14:15 | Poster Sessions P1-P4 and Coffee Break <i>Chair: Gergely Vakulya</i> | Aula |

Session P1: Industrial and Embedded Systems

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| Design and Requirement Analysis of an Outdoor Autonomous Mobile Manipulator | Zoltán Szilágyi and Csaba Hajdu |
| Artificial experimental environment for indoor plant cultivation | Bertalan Beszédes |
| Design of a Reliable Portable Power Supply Chain for an Embedded System | Bertalan Beszédes |
| Capacitive sensor for gaseous substances, from old to new | György Györök, Olga Shvets, Margit Makó and Borbála Györök |
| The concept of Visible Light Communication technology in life support parameters control systems | Aslima Alimhanova, Svetlana Grigoryeva and György Györök |
| Indoor LED lighting control based on embedded systems | Svetlana Grigoryeva and Anar Bolatova |
| Development and Prototype Production of a Full-spectrum LED Lighting Driver Circuit | Bertalan Beszédes and Bence Márta |
| Artificial Lighting Experimental Environment in Agriculture for Seed Germination | Bertalan Beszédes, Bence Márta and Péter Dr. Udvardy |

**Session P2:
Computer Systems**

Simulation and Analysis of Route Plans
for Autonomous Guided Vehicle Systems

Genetic algorithm based image approximation
with geometrical shapes

A new laser stripe detection algorithm
for 3D scanning applications

Stabilization of environmental conditions
to improve the performance of a mobile application
for the state of the driver monitoring

Autonomous life support using intelligent analysis
in Kazakhstan

Robust Control Design for Quadcopter
for Path Following in Monitoring Tasks

Solving Olympiad Problems Via Lagrange Multipliers

Boardgame Recommendation System
with Collaborative Filtering

Virtual Reality Game Development
with External Hand Motion Sensor

Rozália Lakner

Gergely Vakulya

Albina Kadyroidina, Assel Kussaiyn-Murat,
Alexander Krasavin and Darya Alontseva

Olga Shvets, Bauyrzhan Smakanov
and György Györök

Olga Shvets, Assel Naizabayeva
and Márta Seebauer

Daniyar Kaliyev, Olga Shvets
and György Györök

József Borbély

Vanessza Tőke and Rozália Lakner

Erik Dobra and Éva Hajnal

**Session P3:
Geodesy and Geoinformatics**

Lever arm calculating algorithm for efficient
and precise vector determinations

Comparison of lever arm determination methods
in terms of their effect of the accuracy
of aerial triangulation

The Geodatabase Design of Cemetery Cadastre
of Saint Vince Home of the Sisters of Charity
in Csákvár

Conversion of Laplace equation
from the spherical coordinate description
to Cartesian coordinate system

Comparative Analysis of several contour line
generation methods and softwares

Gergely László, Gábor Péter Molnár
and Gabriella Bor

Ágnes Krausz and Gergely László

Regina Hanna Balaton
and Andrea Pődör

Gibárt Gilányi and Gábor Molnár

Gábor Nagy and Zsuzsanna Ungvári

**Session P4:
Education, Enterprise and Economics**

Motivation potential in higher education
after covid-19 based on personality traits

The changes in the concept and content
of the mechanical engineer training
from the 3rd industrial revolution to industry 4.0

Online examination from the point of view of teachers

Entrepreneurial activity and ecosystem in Hungary

Promotion of dual training form
and its' tools at a large company

Timea Bekk and Monika Pogátsnik

Csaba Bráda and Monika Pogátsnik

Nikoletta Tolner, Judit Módné Takács,
András Dávid and Monika Pogatsnik

Ildikó Petőné Csuka

Zsuzsanna Felícia Pretz and Éva Takács

ORAL Session II.

14:45 Applied Informatics II.

Chair: Éva Hajnal

14:45 Computerized latency data correspond with Iowa
Gambling Task responses in healthy individuals

15:00 Image Classification Methods to Detect
the Growth of Industrial Areas

15:15 LEGO robotics at service of education

15:30 Comparative Analysis of Land Value
Capture Tools in Europe

Room Kálmán Kandó

Erika Peukert, Anikó Mahler
and József Halász

Tamás Jancsó, Andrea Pődör,
Éva Nagyné Hajnal and Rezső Nagy

Péter Udvardy

János Katona and Andrea Pődör

16:00 Closing Ceremony and Reception

Room Kálmán Kandó