

H²⁰²²-SPACE

7th INTERNATIONAL CONFERENCE
ON RESEARCH, TECHNOLOGY AND EDUCATION OF SPACE

PROGRAM

April 7–8, Budapest, Hungary
space.bme.hu

April 7, Thursday

Location: Building I, ground floor, IE.007

Budapest University of Technology and Economics

Magyar tudósok krt. 2., Budapest, H-1117

The first day will be live streamed for online participants.

Session Chair: László Baczárdi

14:00 Opening ceremony

Orsolya Ferencz, Ministerial Commissioner, Ministry of Foreign Affairs and Trade

Hassan Charaf, Dean, Faculty of Electrical Engineering and Informatics, BME

Kálmán Kovács, President, Hungarian Astronautical Society

14:15 Invited presentation

The effects of the war on the global space policy

Balázs Bartóki-Gönczy, Head of Outer Space and Social Sciences Research Center, University of Public Services, Hungary

14:40 Invited presentation

HUNOR Hungarian Astronaut Program Briefing

Balázs Zábori, HUNOR program manager, Centre for Energy Research, Hungary

15:05 Invited presentation

Space ecosystem building: case study Slovakia

Michal Brichta, Head of Industrial Branch of the Slovak Space Office



15:30 Coffee break

Session Chair: Kálmán Kovács

16:00-18:00: Technical presentations – Session Science and Technology I

Experiments on MRC-100 PocketQube

Tibor Herman and Levente Dudás

QO-100 video signal transmitting

Anna Gertrúd Fábián and Róbert Varga

Miniaturized and modular flow chemical reactor for space applications

Ferenc Darvas, Ferenc Boncz, János Takács and Gergő Mezőhegyi

GNSS interference events at Hungarian airports

Bence Takács, Daniel Garcia, Mercedes Reche and Rita Somogyi

Nationwide Ground Motion Map of Hungary Based on Sentinel-1 PSI Data

Péter Farkas, Gyula Grenczy and Sándor Frey

The Jovian Plasma Dynamics and Composition Analyzer (JDC) - a sensor of the Particle Environmental Package (PEP)

Máté Kerényi, Philipp Wittmann and Martin Wieser

Radio astrometric support for the JUICE mission to Jupiter

Sándor Frey, Judit Fogasy, Krisztina Perger, Krisztina Gabányi and Janka Kőmíves

Hungarian Participation in JUICE Mission of ESA

János Nagy, László Hevesi, Pál Gábor Vizi, Lajos Szalai, István Horváth and Sándor Szalai



April 8, 2022, Friday

Location: online

Registered participants will receive the link for online participation.

Session Chair: László Pap

10:00-12:15: Technical presentations – Session Science and Technology II

Rain Field Sensing Supported by GPS Signal Attenuation

László Csurgai-Horváth, János Bitó, Péter Horváth, Bálint Péter Horváth and Árpád László Makara

Application of Artificial Intelligence in Satellite Communications

Árpád László Makara and László Csurgai-Horváth

Limits of ion-trajectory controll using electric field

András Reichardt, Árpád Makara and László Csurgai-Horváth

A wide-band spectrum monitoring system as a scientific payload for MRC-100 3-PQ(Pocket Qube) student satellite

Yasir Humad and Levente Dudás

InSAR monitoring results of Transcarpathia in the GeoSES Project

Bálint Magyar and Roland Horváth

Using quantum algorithms for Earth Observation data processing

Doaa Subhi and László Bacsárdi

Topic discovery in the diaries of Antarctica winteroverers with multilingual deep sentence encoders

Márton Makrai, Bea Ehmann and László Balázs

Distant Psychological Monitoring of ICE-Groups: Quantitative and Qualitative Content Analysis Approaches

Bea Ehmann, Anna Altbacker, Borbala Tölgyesi and László Balázs

Investigating Cognitive Changes in Space Analog Paradigms

Borbála Tölgyesi, Anna Altbäcker, Irén Barkaszi, Bea Ehmann and László Balázs

12:15- 13:15 Lunch break



13:15-15:15: Session Education and Outreach II

Invited presentation

Nationwide cooperation in space education – The UniSpace Hungary Consortium

Bianka Parragh, Programme Director, Head of Space Economy and National Competitiveness Research Group, University of Public Services

Invited presentation

Space Engineering Curriculum at the Budapest University of Technology and Economics

László Csurgai-Horváth and László Baczárdi, BME

IRF SpaceLab – a Swedish example of opening research infrastructure for external users

Máté Kerényi and Stas Barabash

Székely Mikó T3Ki-rover

Mária Pető

Flórián Vámosi and László Vámosi

Astronomy activities at the Mihaly Tancsics Grammar School of Kaposvar

How Tech Companies can help to Teach Space

Flórián Vámosi, Miksa Vámosi and Andrew Yake

Simulated Mars Rover Model Competition – Years of Pandemic Challenge

Pál Gábor Vizi and Attila Sipos

15:00 Closing remarks

