H-SPACE 2022

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

DRAFT PROGRAM – March 17, 2022

April 7-8, Budapest, Hungary

space.bme.hu

In this program, the affiliation of the presenter author is listed.

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 Bacsárdi

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
Emerging space ecosystem (tbc)
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 Gergo Mezohegyi

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 Grenerczy 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
Janos 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: TBC

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

Session Chair: TBC

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

Invited presentation
Nationwide cooperation in space education – The UniSpace Hungary Consortium (tbc)
Bianka Parragh, University of Public Services

Invited presentation
Space Engineering Curriculum at the Budapest University of Technology and Economics
László Csurgai-Horváth and László Bacsárdi, BME Department of Broadband Infocommunications and Electromagnetic Theory, Hungary

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