

3rdInternational Conference on Research, Technology and Education of Space

February 9-10, 2017

Budapest,

BME building 'I', Hall IB 026

Address: Magyar tudósok krt. 2., Budapest, H-1117, Hungary

Conference Program

February 9, Thursday

14:00–14.20 Opening

János Józsa, Rector of Budapest University of Technology and Economics (BME)

Fruzsina Tari, Hungarian Space Office, Ministry of National Development

Amnon Ginati, Directorate of Telecommunications and Integrated Applications, ESA

László Pap, National Council for Telecommunications and Information Technology of Hungary

János Solymosi, President of Hungarian Astronautical Society

14:20–15:20 Section of Science and Technology I/A

Keynote talk:

Space Eco-System Investment: Shaping the Future of the Space Economy

Amnon Ginati, ESA's Senior Advisor to the Directorate of Telecommunications and Integrated Applications

Philae's landing and autonomous operation control on a comet – challenges, achievements and lessons learnt

András Balázs, Wigner Research Centre for Physics of Hungarian Academy of Sciences (HAS)

Introducing E-GNSS navigation in the Hungarian Airspace: the BEYOND experience and the relevance of GNSS monitoring and vulnerab

Rita Markovits-Somogyi, HungaroControl Zrt.

15:20–16:15 Poster session with coffe break

Analyzing energy efficiency of sensor networks deployed on the surface of a Solar System Body

Roland Béres, Department of Networked Systems and Services, BME

Analyzing the Quantum Efficiency in Satellite-based Quantum Key Distribution Network

András Kiss, Institute of Informatics and Economics, University of Sopron

Comparative analysis of tropospheric delay models using reference data derived from ray tracing

Ildikó Juni, Department of Geodesy and Surveying, BME

Follow-up psychological status monitoring of the crew members of Concordia research station at Antarctica based on speech

Gábor Kiss, Department of Telecommunications and Media Informatics, BME

HABIT – instrument on ExoMars rover to detect microscopic liquid water

Ákos Kereszturi, Research Centre for Astronomy and Earth Sciences, HAS

Simulated Mars Rover Model Competition - More than a decade as a research area

Pál Gábor Vizi, Wigner Research Centre for Physics, HAS

16:15-18:00 Section of Science and Technology I/B

Invited talk: Performing chemistry in space, industrial and academic aspects: challenges and recent progress

Ferenc Darvas, ThalesNano Inc.

The Alphasat Scientific Experiment: Propagation Measurements and Statistics in the Ka/Q Band

Bernard Adjei-Frimpong, Department of Broadband Infocommunications and Electromagnetic Theory, BME

Developing a VLF transmitter for LEO satellites: Probing of Plasmasphere and Radiation Belts - the POPRAD proposal

János Lichtenberger, Department of Geophysics and Space Sciences, Eötvös Loránd University

SATCOM developments for ESA

János Solymosi, BHE Bonn Hungary

An analysis of entangled-based solutions on Earth-satellite channel

Ákos Korsós, Department of Networked Systems and Services, BME

Plasmaspheric density measurements based on guided VLF wave propagation

János Lichtenberger, Department of Geophysics and Space Sciences, Eötvös Loránd University

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February 10, Friday

9:00–9:30 Opening of the second day

Gyula Barta-Eke, Chancellor of BME

László Jakab, Dean of Faculty of Electrical Engineering and Informatics, BME

Marissa Michelini, President of the International Research Group on Physics Teaching

László Bacsárdi, Secretary General of Hungarian Astronautical Society

9:30–10:35 Section of Science and Technology II/A

Long talk: Novel materials for aerospace hardware

Pál Bárczy, Admatis Kft.

Hexavalent Chromium free Coatings for Space Metallic Hardwares

Kalaivanan Thirupathi, University of Miskolc and Matmod Limited

Reusable Launch Vehicle-Concept of Minimizing Space Transportation Cost

Nadeem Alam, Department of Aeronautical Engineering, Babu

Banarasi Das National Institute of Technology and Management

10:35–11:00 Coffee break

11:00–12:15 Section of Science and Technology II/B,

Education/Outreach I/A *(in English)*

High speed integrated space streaming swarms as mission concepts

Pál Gábor Vizi, Wigner Research Centre for Physics, HAS

Probing and Analyzing Triple Asteroid System

Hari Shankar R L, Team DeSpaceInvaders

RadMag development for the RADCUBE mission

Attila Hirn, Centre for Energy Research, HAS

Optical spectroscopy for high school and university students

Daniele Buongiorno, URDF - Università degli Studi di Udine

Space Education in Nigeria, Why there's more to be done

Chucks Okoroafor, Federal University of Technology, Owerri

12:15–13:00 Lunch break

**13:00–15:15 Section of Science and Technology II/C,
Education/Outreach I/B (in Hungarian)**

Invited talk: How Space is Shaping our World

Lluc Diaz, Technology Transfer Office, ESA

Inspiring space enthusiast students and young professionals
István Arnócz, Space Generation Advisory Council

Space research and mini-satellites in secondary high school
Mária Pető, Székely Mikó High School, St. Goerge

About Space Weather in High Schools
Annamária Komáromi, Eötvös Loránd University

Funding opportunities of the EUROPLANET 2020
Melinda Dósa, Wigner Research Centre for Physics, HAS

„Csillagszekér” Planetarium in education - experiences
Attila Szing, Stratolab Kft.

ESERO HUNGARY, the Hungarian Education Office of ESA
László Veress, Orion Space Generation Foundation

15:05-15:15 Closing remarks

Kálmán Kovács, Director of Federated Innovation and Knowledge
Centre, BME

15:30-19:00 SpacePaprika Workshop

*Students and Young Professionals Workshop (Invitation only, in
Hungarian)*