The second edition of IGLUNA – a space habitat: remote operations – has started and will be tested next summer in Lucerne

During this academic year, 15 international student teams are developing their technologies on the topic of a space habitat with the goal to test their projects by remote control from the VERKEHRSHAUS – Swiss Museum of Transport in July 2020. This interuniversity project follows the first IGLUNA edition that was successfully completed last summer in Zermatt.

IGLUNA continues to gather students from all around the world to work on a collaborative interdisciplinary project. After IGLUNA 2019 was successfully led to a Field Campaign in the Klein Matterhorn glacier in Zermatt last June, ESA, the European Space Agency, has engaged to support this initiative once more to bring it to the next level.

Fifteen teams from ten countries have been selected to conduct this mission. The focus this year is to develop technologies needed to live in an extreme environment (as on other celestial bodies or on Earth) with the challenge to control the modules remotely. While the students will install their modules on a mountain nearby Lucerne, they will operate and perform their experiments from the VERKEHRSHAUS – Swiss Museum of Transport, with limited access to the testing area, as in space missions.

The students come from various disciplines and will cover six research topics in order to develop this extreme environment habitat. Several teams focus on life support systems such as food and water production, while other teams develop the structure of the habitat. The other teams are taking care of the human well-being, the communication system and the power management. Finally, students will use the opportunity of this extreme environment to conduct scientific experiments.

From the 11th until the 13th of September, the teams met at the EPFL campus in Lausanne to kick-off their projects and start working together towards the Field Campaign in July 2020. For example, one team will manufacture fibres for textiles and building structures from the ground so that others can use them as a construction material on site. With this collaborative aspect, the sustainability goal, the technological challenge and the remote operations, IGLUNA aims to familiarize students to the diversity and constraints of space projects and their terrestrial applications.

Selected institutions
- MELiSSA Foundation, Belgium
- Ecole Polytechnique Fédérale de Lausanne EPFL, Switzerland
- Zurich University of Applied Sciences ZHAW, Switzerland
- Sapienza University of Rome, Italy
- Warsaw University of Technology, Poland
- Massachusetts Institute of Technology MIT, USA
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- Brandenburg University of Technology BTU, Germany
- RWTH Aachen, Germany
- Windesheim University of Applied Sciences, Netherlands
- Politecnico Milano, Italy
- Technical University of Berlin TU, Germany
- Tallinn University of Technology, Estonia
- Aristotle University of Thessaloniki, Greece
- University of Bern, Switzerland
- University of Strathclyde, United Kingdom

About

Coordinated by the Swiss Space Center, the ESA_Lab@CH Project IGLUNA offers students opportunities to participate in an international, collaborative project on a visionary space topic: a space habitat with remote control operations. In one year, 15 student teams from various disciplines gather their knowledge to design, build and test technologies for a habitat in an extreme environment.

www.spacecenter.ch/igluna/

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Press kit: https://drive.google.com/open?id=1qOj-mUUOMkmvbZPfih3rtTvKVjg7tI5

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