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Abstract

The United Nations Office for Outer Space Affairs launched the Human Space Technology Initiative (HSTI) in 2010 within the framework of the United Nations Programme on Space Applications. HSTI aims to involve more countries in activities related to human spaceight and space exploration and to increase the benets from the outcome of such activities through international cooperation in order to make space exploration a truly global endeavour. The activities of HSTI are based on three pillars, namely: promote international cooperation in human spaceight and space exploration-related activities; create awareness among countries of the benets of utilizing human space technology and its applications; and build capacity in microgravity education and research.

International cooperation: HSTI has been working with the International Space Station (ISS) partners in order to extend the benefits of the ISS to more people on Earth. In 2014, the Office organized the United Nations Expert Meeting on the International Space Station Benefits for Health, which focused on facilitating dialogue between the ISS partner agencies and the World Health Organization to identify potential areas of collaboration. HSTI is also working with the Government of Japan to launch a joint project to provide non-spacefaring countries with the opportunity to deploy micro-satellites from the Japanese Experiment Module "Kibo" on-board the ISS.

Outreach: The United Nations/Costa Rica Workshop on Human Space Technology will take place in San José, Costa Rica, from 9 to 13 November 2015. It will be hosted by the Government of Costa Rica and co-organized by the International Academy of Astronautics. The workshop is a further extension of the United Nations/China Workshop on Human Space Technology in which the participation of developing countries in space exploration was strongly recommended. Since the space industry has become a significant stakeholder in human space exploration-related activities, HSTI is going to discuss the role of industry in human space exploration at the workshop in Costa Rica.

Capacity-building: HSTI is implementing two activities: the Zero-Gravity Instrument Project (ZGIP) and the Drop Tower Experiment Series (DropTES). ZGIP has been extended to a third cycle which provides students and teachers with the opportunity to study gravitational effects on samples such as plant seeds in a simulated microgravity condition. For the first cycle of DropTES, a student team from the German Jordanian University, Jordan, conducted its own experiment at the Bremen Drop Tower, Germany, in November 2014. DropTES has also been extended to a second cycle for 2015.