SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1) Calling Planet Earth - Space Outreach to the General Public (6)

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WHAT CAN SPACE CONTRIBUTE TO GLOBAL STEM EDUCATION? A TEAM PROJECT AT ISU-SSP12

Abstract

Abstract. Space still captures the imagination of many young people around the world and has the potential to open the frontiers of Science, Technology, Engineering and Mathematics (STEM) to many students. To plan, build, launch, and operate space systems, all of these disciplines are required. Interest about STEM subjects in many societies has weakened; therefore attention on how to regenerate people's interest in STEM subjects has become essential for those societies. Wider inclusions of the arts in the scientific curricula will not only help to foster students' creativity, but will let them reignite or foster their passion, resulting in the development of interest in STEM subjects. By drawing on the experience and knowledge from space agencies around the world, as well as from the different national and international organizations involved in education, the participants will propose an innovative solution for how these initiatives and experience from those organizations can be leveraged.

There are people throughout the world who are not aware of the many potential benefits of space and STEM education for their personal lives and societies. One way to improve this awareness is to involve these people in space missions and space-themed educational activities. The main objectives of this team project are: (1) To provide the participants an experience in interdisciplinary, intercultural, and international teamwork and encourage them to identify, share, and develop existing and novel ideas related to developing STEM education around the world, while fostering skills in effective management of time and resources; (2) To understand the reasons behind the loss of interest in STEM education; (3) To define and use a model for STEM education, taking into account current and future space missions, as well as ideas from around the world to understand the problem and determine possible ways forward; (4)To create a report that will be influential beyond ISU, both at an individual level and in those places where decisions are made concerning the national and international education policies. This report will be presented at IAC 2012.