Paper ID: 12384
oral

Participatory Exploration for Inspiration and Education (12)
Educating the Next Generation (2)

Author: Mr. Shen Ge
United States

Prof. David Hyland
Texas A&M University, United States
Ms. Hyerim Kim
Texas A&M University, United States
Ms. Neha Satak
Texas A&M University, United States
Mr. Virgiliu Pop
Romanian Space Agency (ROSA), Romania

NEW EDUCATIONAL MODEL FOR GENERATING ESSENTIAL HUMAN TALENT FOR A SPACEFARING CIVILIZATION

Abstract

The Scientific Preparatory Academy for Cosmic Explorers (SPACE) is a space exploration non-profit organization that inextricably combines a rigorous educational program with actual, hands-on space system development and exploration expeditions. This academy will alter the fundamental paradigm relating to space education and enable a focused approach to create the necessary human pool of talent for a spacefaring society.

The fundamental thesis is that exploration is education, and that scholarly instruction and research are merely two aspects of discovery. The short-term goal of SPACE is to create the next generation of space experts and space technology while the ultimate goal of SPACE is to help build a space-faring society.

SPACE is a unique institution that offers a combined educational program and space agency with an international outlook. Though initially a 4-year university, it will eventually offer the full pipeline of education from high school to PhD. Presently, there is no other institution that can offer:

- Immediate involvement in spacecraft and mission design and research for entering students
- Collaborative real projects with engineering professionals at all centers of space development in the various countries
- Offering students the opportunity to continue working as instructional staff, senior mentors, and technical contributors to an ever expanding set of space missions.

SPACE offers a rigorous program of studies and research that emphasizes the skills and knowledge needed by those who will explore the cosmos. The core instruction comprises the first four years, roughly corresponding to an undergraduate curriculum, except much more rigorous and intensive. Instruction is based on a quarterly schedule. On the educational front, SPACE provides both mandatory core classes and space research for the students. On the technology front, SPACE provides laboratories and collaboration with industry experts for researchers.