

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
New Worlds - Innovative Space Education And Outreach (5)

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DEVELOPMENT OF SPACE SCIENCE AND TECHNOLOGY - EDUCATION AND CAREERS FOR
THE NEXT GENERATION**Abstract**

Given the accelerating pace of space industry today and the pivotal role that is played by current space applications, it is evident that there is a need to establish and develop space educational outreach programs aimed at the next generation of experts in the space industry. Recent studies have shown a decline in young people pursuing studies and careers in Science, Technology, Engineering and Mathematics (STEM). The key to fight against this trend is to build on the enthusiasm of youth in an engaging learning environment. Teaching methods such as hands-on learning, teaches the student to be the maker of things rather than the consumer. By providing innovative approaches that support science and technology education in schools, outreach efforts should aim to spark interest in space related activities among students. Current and future outreach programs should enable critical thinking, problem solving and support innovative learning. The focus of this paper will be to address the issues and challenges of initiating and sustaining space education programs in developing nations. The 2010 Space Generation Congress (SGC) Outreach Working group, comprising of enthusiastic students and young professionals in the space sector, identified key problems in engaging the young generation in developing countries about space related topics. With an emphasis on breaking stereotypes and dispelling misconceptions and myths about working in the space sector, the group highlighted key challenges in the development of science and technology education. The SGAC Outreach Working Group put forward recommendations for the improvement of space education and outreach program in developing countries aimed to encourage the young generation of space enthusiasts in an interactive and easily-accessible way. The short video "Space Is Not Just Rocket Science" was developed by the Outreach Working Group showing people across the world, working in different professions, having one thing in common: They all work in the space sector. By voicing the youth's involvement in the space sector and breaking the stereotypes of what a space career entails, the video aimed to encourage young people to become part of the big space family, not necessarily as scientists and engineers but also as fashion designers, lawyers, researchers and many more occupations. The video is available on YouTube and can easily be accessed by students and educators around the world. The recommendations of the SGC Working Group seek to support ongoing outreach initiatives and provide new ideas on how to improve space education and outreach programs.