

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Ignition - Primary Space Education (1)

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BUILDING AN ASTRONAUTICS EDUCATION ECOSYSTEM BASED ON FUTURE SPACE
SCHOLARS MEET**Abstract**

Abstract. This paper discusses the methods of building an astronautics education ecosystem based on Future Space Scholars Meet, its characteristics, and implementation outcomes. The Future Space Scholars Meet (FSSM) is open to teenagers around the world, and on top of it, an astronautics education ecosystem is formed with competitions, courses, training programs and a shared community. Jointly initiated by China Space Foundation, Space Foundation (USA), UK National Space Academy and ITCCC, the FSSM is designed as a platform of astronautics science popularization and education, to promote international exchange and communication among teenagers through astronautics education. It has attracted participants from nearly ten countries. The core components of the ecosystem are listed below: 1 Competitions: The competitions are divided into three age groups: primary school, junior middle school, and high school groups. The activities factor into the characteristics of students in each age group and inspire them to design future space settlements for humankind based on science and technology. The tasks for primary school and junior middle school groups are more focused (such as designing a farm on the lunar settlement), and students are asked to produce posters and physical models. Those for the high school group are more integrated and systematic (designing a lunar settlement). 2 Curriculum: These courses are delivered on-campus and online in the form of projects, closely relating to such subjects as science, technology, engineering and math. So far, they are available in ten schools in China. 3 Training programs: A nationwide exchange and training system is in place for teachers, and original training programs are developed to strengthen their ability to initiate and implement astronautics-themed project activities, accumulatively training more than 500 teachers so far. 4 Shared community: The FSSM is an open resource sharing platform. Its project manuals and requests for proposals are open to all interested countries and teams for repurposing and usage. The event is open to interested organizations and student teams around the world and supports the local organizing committee to launch related educational activities in local communities. After years of exploration, the FSSM has formed an astronautics education ecosystem featuring competitions, courses, training programs, and a shared community. With future-oriented projects, it engages more and more students and educators, deepens their passion for and understanding of astronautics and its industry, and cultivates and strengthens the students' ability to innovate, cooperate and communicate with others and solve problems.