

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
In Orbit - Postgraduate Space Education (4)

Author: Dr. Xinsheng Wang
Beihang University, China, xswang@buaa.edu.cn

Prof. Hai Huang
Beihang University, China, hhuang@buaa.edu.cn

Prof. Jingnong Weng
Beihang University, China, wengjn@buaa.edu.cn

Ms. Yuanyuan Guo
Beihang University, China, gyy@buaa.edu.cn

MICRO-SATELLITE TECHNOLOGY EDUCATION AND PRACTICE IN RCSSTEAP, CHINA

Abstract

The Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) (Affiliated to the United Nations) (hereinafter referred to as Centre) was established at Beihang University in November, 2014. For the purpose of facilitating the UN Space Application Program and meeting the demands of the Asia-Pacific countries regarding space science and technology education, This paper introduced the space technology education curriculum and pilot project practice in the Center. The kernel curriculum framework and the facility and capacity building were given. Based on Beihang University and Chinese aerospace industry department supporting, the Centre has proposed an innovative micro-satellite technology educational program for the students from UN member states. A joint team of electronics and astronautics students has been involved in the program. The students learn through the hand-on practice during all the BUAA-SAT micro-satellite project phase work, including the mission analysis, system/subsystem design, manufacture and test, launch and in-orbit operation, etc. Moreover, the project management, organization strategies, the inter culture exchange and the outreach also were obtained and the analyzed. The common problem between academic research and the engineering practice was discussed and an effective solution was found. Finally, it gave the roadmap and the prospection on the micro-satellite technology educational program.