

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
ON TRACK - UNDERGRADUATE AND POSTGRADUATE SPACE EDUCATION (2)

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PRE-MISSION ACTIVITIES FOR THE SPACE HIGHER EDUCATION

Abstract

Based on general "System Theory", a system when it comes to its intended operational life; must exhibit three distinguished phases of (1) Pre-mission, (2) Mission, and (3) Post-mission. During Pre-mission one evaluates the system elements readiness to conduct the mission; their proper configurations in addition to their support roles to conduct their organizational role. During Post-mission, we check whether our evaluations were in fact, correct to the levels expected. Both pre and post mission phases are necessary for a successful mission. An education system; especially designed for space applications which aims to deliver the necessary workforce for the relevant industries and other scientific agencies definitely could benefit from such system approach. However, such an approach would not come straightforward; as it requires a proper identification of the system boundaries together with the associated stakeholders. Based on the previous work of authors, (i.e. Postgraduate Space education), the dilemma this paper aims to focus is : "when exactly the space education mission should start". In the first part of the work, we present a brief historical review of the space education to determine if a level of national/regional technical or social infra-structure which is required as part of the pre-mission operations to launch the "Space higher education program" in a developing country. In the second part, in a rather smaller scale, we investigate what might construct a proper "Supporting system" of such space education. Finally, we investigate the necessary operations to develop the space education system ready to conduct. The support systems include the laboratories and infrastructures, and also human resources. These two parts together form the set of pre-mission activities to be done before launching a Space Higher Education Program Support (SHEPS). The actual Education program might then assume the "Go-ahead" once SHEPS is completed.