SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1) Interactive Presentations (IP)

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PROMOTION OF SPACE SCIENCES AT UNDERGRADUATE LEVEL THROUGH THE LESSONS LEARNT FROM PARIKSHIT STUDENT SATELLITE MODEL

Abstract

This paper focuses on the model adopted and lessons learnt through Parikshit Satellite Team. Parikshit Student Satellite Team is the student satellite venture of Manipal University, India. The project was launched in the year 2010 and is nearing its completion with handover of finished satellite to ISRO planned in the near future. Being an undergraduate team, the founding members understood the daunting task ahead of them and realized very early on the requirement of an efficient working model that functions and continues the flow of work unhindered even after the initial members have graduated from the university, thereby honoring the timeline of the project. Through intensive discussion and deliberation it was decided to divide the nature of work of an individual working in the team in the form of well-defined zones compatible with the individuals time spent in the project, the vigor of academics of his or her regular course increasing with seniority, responsibilities towards the team and new members and the timeline of the project which has to be strictly honored. Newly recruited members are to spend at least one semester gaining relevant knowledge and skills and being up to date with the tasks and modules already finished or finalized. After acquiring the necessary knowledge, skills and experience, the members are to apply their intellect and actually contribute to the team towards the successful completion of the project. This is the most productive time of the students and they are to solely focus on their work while occasionally helping out their juniors, only if their primary task is not delayed or compromised. Once students enter the last year of college, job and higher study take priority, thereby making it difficult to focus on the project. In this stage members mainly guide the newly recruited juniors and try to transfer all of their knowledge and skills so that work continuity remains and project stays on schedule. Such a system develops and nurtures a healthy ecosystem where students learn, apply and share knowledge and gain valuable life experiences throughout the process. In case of an emergency or unforeseen circumstance because of which a member has to terminate his work and leave the team, the overall system is not compromised because of the important provision of knowledge transfer. Such a system can be a model for future undergraduate level space science projects.