

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Lift Off - Secondary Space Education (2) (2B)

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FROM CLASS TO COMMUNITY : UNDERGRADUATE STUDENT TEAM STEM OUTREACH VIA
HIGH ALTITUDE BALLOON**Abstract**

In Education blueprint of Malaysia, STEM education is mentioned as one of the main components that shape Malaysian education to serve the goals of 2020. Concern has been raised on declining interest of students in STEM education when Malaysian Student achieves below average score; based on student performance in PISA done in 2009 and 2012. It has been identified that the inadequate STEM enrollment by students is due to lack of awareness and relevancy in life, perceived difficulty of STEM subject; insufficient training and facilities for STEM-related teachers and conventional learning curriculum. In an effort to promote science, technology, engineering and mathematics (STEM) learning, an undergraduate student design team from University Sains Malaysia has conducted a 'Voyage Secondary School Experiment' as a secondary mission of their High Altitude project. The aim of this project is to engage with schools in the local community to increase awareness of STEM Education among secondary students via space education. This project invited all secondary students in Seberang Perai Selatan, Penang to form a team of four and submit an atmospheric experiment proposal. Four best proposals were selected and flew in the Voyage Balloon payload module. The learning objectives for this STEM activity include understanding the near-space environment, ability in analyzing and interpretation of data and basic physics behind High Altitude Balloon. The student activities and detailed experiment are highlighted in this paper and the challenges are discussed to improve space outreach activities for secondary student in Malaysia.