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Author: Mr. Zaid Shakil
TU Berlin, Germany, z.shakil@campus.tu-berlin.de

PAVING YOUNG MINDS: AN ENABLER TO REACH OUT

Abstract

Space exploration is predicted to be at a massive boom in the coming decades or if science-fiction is to be believed, for centuries to come. Enabling space exploratory technologies, we will need to nurture younger generations for space-ready qualifications. This embellishment needs to be from an age bracket where minds get sharpened the most, i.e., during secondary education. This paper presents a method to attract students towards space education and exploration. It presents a software built with its own user interface where students can enter general and lay-termed attributes of a space vehicle and watch it lift-off either to take orbit around Earth, launch itself on an inter-planetary maneuver or burn-out in Earth's atmosphere.

This software educates its user on the mechanics of the vehicle, be it physical or orbital. It visualizes for the user the different stages a vehicle passes through, once commenced lift-off and preaches the necessity of their chosen mission. It is aimed to put the student as a mission director in a mission control center, where his or her active involvement shall engage him or her to ponder on current space technologies only to aspire to build something better. This software lies on a backbone of a central database that has orbital elements and attributes of every vehicle launched to space. Its classification algorithm built considered various attributes like mission status, mission tenure, feasibility, etc., generates the best orbital elements which is processed for visualization of the mission. Orbital determination and educating the student with an auto generated report to enthrall his or her curiosity will be a medium for the student to take away from the usage of this software.

It is the excitement of the student that is needed to be captured. It is this trait of young minds that needs to be targeted for them to aspire to become space engineers