

NASA gets IIT researcher's inputs for asteroid landing

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Shanti Swaroop Kandala was the only Indian student at the Caltech Space Challenge. Photo: Special Arrangement.

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If ever NASA gets astronauts to land on an asteroid, Hyderabad will have reasons to feel proud. For, a research scholar from the Indian Institute of Technology here is a member of the team that has provided vital inputs for the U.S. space agency's project.

Shanti Swaroop Kandala, a second-year Ph.D. scholar at the Department of Mechanical and Aerospace Engineering of the IIT, was among the 32 selected from 104 universities across 14 countries to design a mission to land astronauts on an asteroid, extract resources from it and demonstrate the usage of the raw materials.

Mr. Kandala was the lone Indian student at the Caltech Space Challenge, an international student space mission design competition organised at the California Institute of Technology.

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Every team member had a specific role, and Mr. Kandala was responsible for presenting the engineering aspect of the mission, which included launching the various modules along with new technologies for a multipurpose docking module, a robotic arm and a life-supporting system. He had to collate, edit and integrate all the reports into one document. "It was a tedious task given the amount of work each team member had done," he says.

During the five days and nights spent for the mission, they first understood one another's strengths and agreed on individual contributions to the subsystems of the mission.

After understanding the nuances associated with the mission from two lectures, they were mentored and guided by top scientists and engineers from the JPL, Caltech, Northrop Grumman, Lockheed Martin and Planetary Resources Inc.

The reports submitted by the winning and the runner-up teams will be considered while designing the mission, Mr. Kandala says. The most unforgettable memory of the event was to spend an entire day at the prestigious laboratory.

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