

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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MARS SCIENCE FROM THE PERSPECTIVE OF INTRODUCING UNIVERSITY STUDENTS TO
SCIENTIFIC RESEARCH

Abstract

This presentation gives an overview on the educational effort of the project “Earth and Mars Atmosphere” attached to the UAE University, Al Ain, UAE and funded by a grant from the National Space Science and Technology Center, Al Ain, UAE.

The project started in early 2018. The overall goal is to build capacity in Mars Atmospheric and Surface Science. This is done by incorporating existing know-how in Earth Atmospheric and Surface Science. As an integral part, the project involves more than 10 selected undergraduate students of UAE University. As thus, the project has significant potential in the inclusion of the next-generation and diversification of the scientific community. Likewise, the project is interesting in the context of generating knowledge for the scientific exploration of data from the upcoming Emirates Mars Mission (EMM).

One key educational aspect of the project is the exchange of knowledge with partnering research institutions. For the students, this means not only attending on-site and remote lectures by professional scientists in the field of Mars Science. Also, a group of students was allowed to visit project partners at the Luleå University of Technology, Sweden in Jul. 2018.

Moreover, students are gaining hands-on experience in Mars research by accomplishing student projects and presenting their results to the scientific community. A student poster on Mars dust storms was selected for the final round of the Explore Mars Poster Competition 2019, organized by the Mohammed Bin Rashid Space Centre (MBRSC), Dubai, UAE. Moreover, a number of students presented their posters on the Ninth International Conference on Mars, Pasadena, CA, USA in Jul. 2019. This activity is under the guidance of teaching and research staff of UAE University, including the author.

The above do-it-yourself projects further strengthened the students’ skills in team work as well as individual scientific productivity, problem solving and communication of ideas, time management, etc..