



Return to the Moon and Onwards to Mars! NASA's Artemis Program

A Public Lecture by: Mansoor Ahmed

Retiree

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Mars has been a human fascination for several centuries. We now have several satellites orbiting this planet and some robotic rovers are also roaming around on its surface. Having a human presence on Mars is more than just curiosity and the spirit of exploration. To some extent, the fate of human race might depend on the ability of humans to live away from earth. Humans have lived in the outer space for more than twenty years now. But that experience is limited to the space station, space very close to the home planet, Earth. Mars is several orders of magnitude away from home. So, we need to take small steps towards achieving this objective. The logical first step is to return humans to the moon, which is only a couple of orders of magnitudes away from the space station, the limit of our experience.



NASA's Artemis Program, the latest endeavor in human exploration, is to develop the technical, physiological, and psychological capabilities to eventually inhabit the red planet. In this talk, Mr. Ahmed will cover the following topics:

- The objectives and goals behind the Artemis Program.
- The design process/approach for meeting the objectives.
- The overall architecture/infrastructure for enabling sustained human presence on the moon and Mars.
- The program chronology and sequence of enhanced capabilities
- Technical challenges to be resolved.
- Opportunities for conducting science (including cosmology) from the surface of the moon.

Date: Thursday, 25 April 2024

Time: 11:00 AM

Venue:

Ishfaq Ahmad Auditorium,
National Centre for Physics,
Quaid-i-Azam University Campus,
Islamabad

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