TEACHING SEMINAR

Particle Dynamics

WEDNESDAY, MARCH 12TH, 11:00 AM - 11:50 AM
ARMS 1028

SURABHI BHADAAURIA

ABSTRACT

This seminar focuses on the fundamental principles of particle dynamics, emphasizing basic kinematic equations and equations of motion. In addition, the seminar will determine the equations of motion of a particle using Newton's second law of motion to describe how forces influence motion. Through practical examples and problem-solving techniques, attendees will develop a strong foundation in analyzing particle motion in aerospace applications.

BIOGRAPHY

Surabhi Bhadauria is a Ph.D. candidate in the School of Aeronautics and Astronautics at Purdue University. Before her doctoral studies, she earned her master's degree in Aeronautics and Astronautics from Purdue University in 2020 and her bachelor's degree in Materials and Metallurgical Engineering from Punjab Engineering College, India, in 2016. Her research focuses on astrodynamics and space situational awareness, with a particular emphasis on Cislunar Space Surveillance. She is developing sensor network strategies for detecting and tracking space objects in the Cislunar region, aiming to enhance surveillance capabilities. Her work contributes to ensuring the safe and sustainable exploration of this increasingly utilized space environment.

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