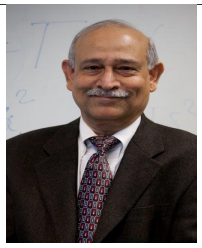
SATELLITE ATTITUDE DYNAMICS AND CONTROL

Overview

Maintaining a specific orientation or attitude is an operational requirement for many satellites. Hence, satellite attitude control is one of the key technologies for space missions. To design an attitude control system, it is necessary to first understand satellite attitude dynamics and the related practical issues. Many passive and active attitude control schemes have been developed and implemented on various satellites. Nevertheless, new control technologies are emerging. However, the success of emerging technologies depends on their feasibility of practical implementation and economic viability, because they need to surpass the existing ones which are already in extensive use. It is possible that certain attitude control technology may be suitable for some specific missions only. If the related control technology falls under this category and can be implemented, then it becomes a matter of research and development. A strong theoretical background is required to venture into such areas to meet the technological and economical challenges. The goal of this course is to introduce the participants to such challenges and opportunities in the area of satellite attitude control.

Module	**Satellite attitude dynamics control technologies: Dec. 22- Dec. 27, 2017**
	Number of participants for the course will be limited to fifty.
You Should Attend If	• you are an aerospace, electrical, mechanical engineer or research scientist interested in designing satellite control devices and learn the state of art of satellite attitude control technology. • you are a student/research scholar or faculty from an academic institution interested in learning how to do research on satellite attitude control and various attitude control devices.
Fees	The participation fee for taking the course is as follows:
	Participants from abroad : US $500
	Industry/ Research Organizations: Rs. 30000
	Academic Institutions: Rs. 10000
	The above fee includes all instructional materials, computer use for tutorials and assignments, laboratory equipment usage charges, 24 hr free Internet facility. The participants will be provided with accommodation on payment basis.

The Faculty

	**Prof. Arun K. Misra** is Thomas Workman Professor, Department of Mechanical Engineering, McGill University, Montreal, Canada. He held the posts of Chairman Department of Mechanical Engineering, McGill University; Associate Dean Faculty of Engineering, McGill University. He is a Fellow of American Institute of Aeronautics and Astronautics, American Astronautical Society, Canadian Academy of Engineering, International Academy of Astronautics. He is internationally renowned and recipient of many awards. His research interests lies in Space Dynamics and Controls, Tethered Systems, Robotic Systems.
	**Dr. Manoranjan Sinha** is an Associate Professor of Indian Institute of Technology, Kharagpur. His research interests are Satellite Dynamics/Space Flight Mechanics and Controls, Aircraft Dynamics and Controls, Intelligent Systems