

Short Term Course and Workshop on ADAPTRONICS

September 20-23, 2017

(Active Shape Control, Active Vibration Control, Active noise Reduction and Structural Health Monitoring)



Prof. Dr. Ing. Michael Sinapius
Institute of Adaptronics and Functions Integration
Technical University of Braunschweig, Germany

Dr. Vishal S. Chauhan
School of Engineering
Indian Institute of Technology Mandi

About the Speaker of short term course

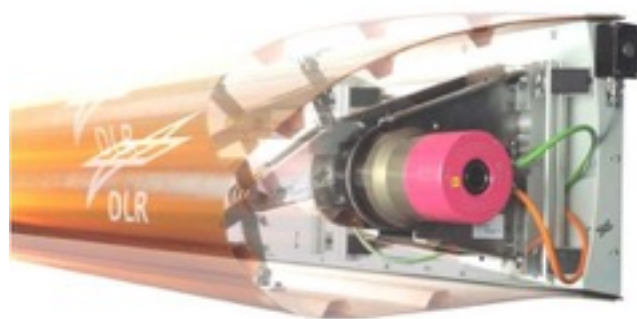
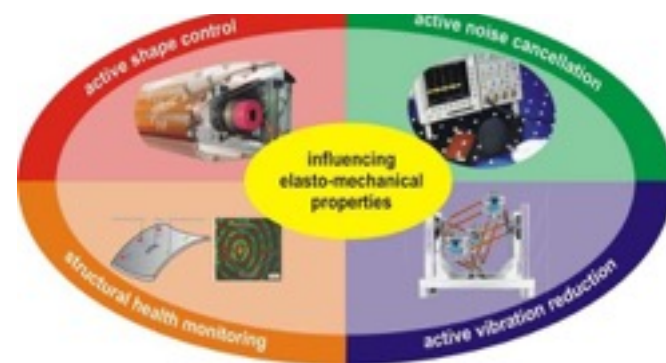
Prof. Dr.-Ing. Michael Sinapius is the full Professor and Head of Institute of Adaptronics and Functional Integration at Technical University of Braunschweig, Germany. He is also Member of Directorate of German Aerospace Centre (DLR) at Braunschweig. His current research activities are focused on the Fibre Reinforced Plastics, Lightweight Structures, Smart Materials, Adaptive Structures, Structural Dynamics. Prof. Sinapius has published more than hundred research articles in international journals of repute.

Objectives

- To learn the wide range of applications of adaptronics
- To understand Adaptronics as an inter-disciplinary science and its scope

Eligibility

The course and workshop are open to Faculty Members, Students from Engineering Colleges / Polytechnics and Practicing Engineers from Industries and R&D Institutions. Seats are



Short Term Course Contents (20-22 September 2017)

Lectures

- Introduction of adaptronics and their components.
- Smart materials, Piezo ceramics
- Electro active polymers.
- Structural conformity.
- Shape control.
- Structurally integrated health monitoring.
- Active vibration control
- Active Noise Control

Lab Sessions

- Piezoelectric effect – butterfly hysteresis
- Piezoelectric actuators - working diagram
- Shape control
- Vibration control
- Placement of actuators and observability
- Acoustic control with electric networks

Workshop (on September 23, 2017)

Workshop will be focused on introducing current research areas in Adaptronics. Eminent researchers from India and abroad will deliver lectures on their research related to adaptronics.

General Information about IIT Mandi

Nestled in the Shivalik Range of the Himalayas, away from the bustle of the metropolis, a new abode of learning, IIT Mandi, has germinated in 2009. The focus of IIT Mandi is to spearhead cutting edge research and development of technologies needed by the world in the years to come. Research groups will work together in creating and harnessing the newest technologies needed to serve the people of the region and the country, and to tackle problems of global importance. In order to achieve excellence and high impact locally and globally, IIT Mandi focusing on strongly foster inter-disciplinary

Registration Fee

Practicing Engineers: Rs. 5,000/- Faculty Members: Rs. 3,000/- Students: Rs. 1,500/-

Registration fee includes course material, working lunch, refreshments and accommodation (sharing basis at hostel). Fee is payable in advance by Demand Draft in favour of "The Registrar, IIT Mandi" payable at Mandi.

How to Apply

The duly filled Registration Form available on website given below along with the Registration Fees should reach to the coordinator on or before August 30, 2017. Intimation of selection will be communicated to the participants by Sept. 3, 2017.

For details please check "www.iitmandi.ac.in"

Contact Address for correspondence:

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