



**Short Term Course
on**

Random Vibration and its Engineering Applications

6th - 8th March, 2023

Venue:- Dept. of Mechanical Engineering, NITK, Surathkal

Sponsored by



Scheme for Promotion of Academic and Research Collaboration



सत्यमेव जयते

Project under
MHRD
GOVERNMENT OF INDIA

Course Instructor

Prof. Ramin Sedaghati



Dr. Ramin Sedaghati is currently full professor of Mechanical Engineering in the Department of Mechanical, Industrial and Aerospace Engineering at Concordia University and also Concordia Research Chair (CURC-Tier 1) in smart materials and adaptive structure. He received his PhD in mechanical engineering from University of Victoria, BC, Canada in 2000. Following his PhD study, Dr. Sedaghati was awarded Natural Science and Engineering Research Council of Canada (NSERC) post-doctoral fellowship and worked in Canadian Space Agency, John. H. Chapman Space Center in Quebec. Dr. Sedaghati is director of smart materials and adaptive structure lab (SMASL) at Concordia University and his main research activities include smart materials particularly magnetoactive materials, adaptive structures, adaptive vibration absorbers and isolators, magnetoactive soft robots, active vibration control and structural optimization. He has supervised over 12 PhDs, 30 PhDs, 40 Masters and 100 UG students and published over 140 journal articles and 150 conference papers and technical reports. He is the Fellow of CSME, Fellow of ASME and Associate Fellow AIAA and serves as an associate editor of Journal of Intelligent Material Systems and Structures. He is also on the editorial board of number of journals including Vibration and Actuators and served as the general chair of 30th International Conference on Adaptive Structures and Technologies (ICAST2019), one of the oldest and well-known conference in the area of smart materials and adaptive structures.

SPARC Project Co- P. I.

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Course coordinator

SPARC Project P. I.

Dr. Sujatha Chandramohan
Professor,
Dept. of Mechanical Engineering,
IIT Madras

Dr. Hemantha Kumar
Associate Professor,
Dept. of Mechanical Engineering,
NIT Karnataka

Session details

March 6 th 2023 10:00 AM - 12:30 PM	Introduction to Random Vibration and Random Variables
March 6 th 2023 2:00 PM - 4:30 PM	Random Processes in Time Domain
March 7 th 2023 10:00 AM- 12:30 PM	Fourier Transforms and Random Processes in Frequency Domain
March 7 th 2023 2:00 PM - 4:30 PM	Random Vibration of Single Degree of Freedom Systems
March 8 th 2023 10:00 AM - 12:30 PM	Random Vibration of Multiple Degree of Freedom Systems

Who can apply?

UG, PG, Ph.D. Scholars, Faculty & Professionals from various Academic / Research Organizations and Industries.

Maximum seats: 60 on first cum first served basis

Certification

Certificates shall be issued to the registered participants approved by the coordinator, provided the participant obtains at least 80% attendance in the lecture series.

Registration

No Registration Fee

Last date for registration is 5^h March 2023

How to apply?

Participants who are interested in attending this program need to make compulsory online registration on the below mentioned link or by scanning the given QR code.

<https://forms.gle/GjWXZW4zpDKhwS2j8>

About

SPARC

The Scheme for Promotion of Academic and Research Collaboration (SPARC) aims at improving the research ecosystem of India's Higher Educational Institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world from 28 selected nations to jointly solve problems of national and international relevance.

IIT Madras

IIT Madras, an Institute of Eminence (IoE), is among the country's pre-eminent institutes known both nationally and internationally for excellence in technical education, basic and applied research, innovation, entrepreneurship and industrial consultancy. A faculty of international repute, a highly motivated and brilliant student community, excellent technical and supporting staff and an effective administration have all contributed to the pre-eminent status of IIT Madras. IIT Madras has been the top-ranked engineering institute in India for four consecutive years as well as the 'Best Educational Institution' in Overall Category in the NIRF rankings of 2019 put out by the Ministry of Human Resource Development

NIT Karnataka

National Institute of Technology Karnataka (NITK), Surathkal has established itself as one of the top technological institutes in India and is recognized as an institute of National importance. The Institute has ranked at ranked 10 in NIRF ranking 2022. The Institute is considered a premier center engaged in imparting quality technological education and providing support to research and development activities.

Concordia University

Concordia University is a next-generation university, continually reimagining the future of higher education. Located in the vibrant and multicultural city of Montreal, Concordia is the top-ranked university in North America founded within the last 50 years and annually registers some 51,000 students through its innovative approach to experiential learning and cross-functional research.