

Tentative Schedule for One-week National Workshop (Online Mode) on

Smart Diagnostics: AI and Machine Learning for Vibration Analysis in Machinery and Structures

11th – 15th November 2024

Day	Timings	Topic	Resource Person
11/11/2024	1:00 PM to 1:30 PM	Inauguration	Dr. Piyush Shakya, Associate Professor
	1:30 PM to 3:00 PM	Session 1: Fundamentals of Vibration Monitoring and Diagnostics & Sensors for Smart Vibration Measurement	Department of Mechanical Engineering IIT Madras
	3:00 PM to 4:30 PM	Session 2: Live Demonstration on Vibration Measurement and Structural Health Analysis	
12/11/2024	1:00 PM to 2:30 PM	Session 3: AI and ML Fundamentals: Neural Networks, Supervised and Unsupervised Learning, and Decision Trees	Dr. Sriparna Saha ,Associate Professor Dept. of Computer Science and Engig, IIT, Patna
	3:00 PM to 4:30 PM	Session 4: Sensors for Smart Diagnostics on Machinery and Structures	Dr. Nitesh P. Yelve, Professor, Dept. of Mechanical Engg., IIT Bombay
13/11/2024	1:00 PM to 2:00 PM	Session 5: Sensors for Structural Health Monitoring of Machinery and Structures	Dr. Srikanth Korla. Professor Dept. of Mechanical Engg., NIT Warangal
	2:00 PM to 3:00 PM	Session 6: Vibration Analysis of Machinery and Structures for Fault Diagnosis	Dr. Edwin Vijay Kumar, Professor Department of EEE, GVPCE(A) & Former General Manager, Vizag Steel Plant
	3:00 PM to 4:30 PM	Session 7: Advances in Vibration Measurement & Structural Health Monitoring	Dr. J. Srinivas, Professor Department of Mechanical Engineering NIT Rourkela
14/11/2024	1:00 PM to 2:00 PM	Session 8: Feature Extraction and Fault Classification Techniques	Dr. Vamsi Inturi, Assistant Professor, Mechanical Engg. Dept., CBIT. Hyderabad
	2:00 PM to 3:00 PM	Session 9: Application of AI and ML Algorithms for Fault Classification in Structures	Dr. A.V. V. Santosh Senior Product Manager ACG, Pharma Manufacturing Company, Mumbai
	3:00 PM to 4:30 PM	Session 10: Application of AI and ML Algorithms for Fault Classification in Machinery	Dr. Rajiv Tiwari , Professor Mechanical Engg. Dept., IIT Guwahati
15/11/2024	1:00 PM to 2:30 PM	Session 11: AI and ML for Vibration Analysis in Naval Application	Dr. V. Rama Krishna Scientist- F, NSTL, DRDO, Visakhapatnam
	3:00 PM to 4:30 PM	Session 12: Smart vibration Analysis followed by Valedictory	Dr. K. Ramjee Professor and HOD, Mechanical Engg Dept., AUCE(A),VSP