

Dr. R. S. Pandey Distinguished Lecture # 1

(on the occasion of ME Research Scholars Day)

Foundations of Data Science and Machine Learning for Mechanical Engineers



Speaker: Prof. C. Balaji
Department of Mechanical Engineering
Indian Institute of Technology, Madras

Date: March 06, 2022, Sunday
Time: 09:00 AM – 09:50 AM
Venue: L20, LHC

Abstract :

This is an introductory lecture on the fascinating subject of data science and machine learning with pointers to possible applications in mechanical engineering. The lecture will cover the fundamental issues concerning data science and then proceed to an introduction to machine learning. A breezy introduction to the types of problems and the methods thereof will be given and the lecture will conclude with a few examples of the application of data science and machine learning to mechanical engineering.

About the Speaker:

Prof. C. Balaji is currently the T. T. Narendran Chair Professor in the Department of Mechanical Engineering at IIT Madras. He has over 27 years of experience in teaching and research. He has authored over 200 International Journal Publications and has supervised 35 Ph.D. and 13 M.S. theses. He is a Swarnajayanthi fellow, Humboldt fellow and is also an elected fellow of INAE. He specializes in the broad areas of heat transfer, thermal systems optimization, numerical weather prediction and climate sciences. He has authored 12 books and is currently the Editor - in - Chief of the International Journal of Thermal Sciences published by Elsevier.

About the Endowed Lecture Series:

Dr. R. S. Pandey Distinguished Lectures Series is supported by Mr. Rakesh Pandey (BT/ME/1978). Under this lecture series, the Department of Mechanical Engineering, IIT Kanpur organizes a lecture each semester by a distinguished person.

Mr. Pandey was the Chief Financial Officer (CFO) of the IITK Foundation till recently. He joined the foundation in 2006 and served as its Secretary from 2006-09. In 2008, he was elected President of the IITK Alumni Association. He is a Distinguished Research Scientist at Olin College of Engineering, Executive-in-Residence at Northeastern University and Mentor at Legatum Center, MIT, USA. His recent work has focused on (a) poverty alleviation through livelihood improvement aided by technical and business innovations and (b) conducting workshops for poor people towards empowering them through collective problem-solving methods. Mr. Pandey had a long tenure at Bose Corporation spanning research, innovation, and product development, business start-up, sales and marketing. He launched and ran Bose's subsidiary in India (1995), started Bose Technology Center in India (2003) and created the Center for University and Industry Research (2008). Mr. Pandey holds a Master's from Penn State University.

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