

# Dr. R. S. Pandey Distinguished Lecture

(on the occasion of ME Research Scholars Day)

## Developing sCO<sub>2</sub> Brayton Power Block- so close yet so far



**Speaker:**

**Dr. Pramod Kumar,  
Associate Professor,  
Indian Institute of Science, (IISc)  
Bangalore**

**Date: March 18, 2023, Saturday**

**Time: 10:00 AM, Venue: L-19, LHC**

### Abstract of the Talk:

The talk presents the technological and research issues associated with developing supercritical carbon dioxide Brayton technology. The talk will present the speaker's journey during the last 10 years of research including the steps taken to address/ overcome the challenges to realize the country's first sCO<sub>2</sub> power block.

### About the Speaker:

Dr. Pramod Kumar is presently an Associate Professor at the Department of Mechanical Engineering. He obtained his Masters and PhD degrees in Mechanical Engineering from IISc Bangalore. Prior to joining IISc as a faculty, he worked as a Research Engineer at Georgia Institute of Technology, Atlanta. Dr. Pramod Kumar works broadly in the area of thermal and energy systems. His team actively collaborates with industries and research labs in India and abroad to develop CO<sub>2</sub> power and cooling solutions. Recently, his team successfully commissioned a 100 kW transcritical cooling system for the Indian Navy.

### 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.

**Contact Person:** Dr. Ashish Dutta,

Head, Deptt. of Mechanical Engineering

IIT Kanpur

+91-512-679-7775,7627