



Divecha Centre for Climate Change
Indian Institute of Science
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DCCC Seminar

Title: Machine Learning for Weather Forecasting and Analysis

Speaker: Dr. Srinivasa Ramanujam Kannan,
Associate Professor, IIT Bhubaneswar

Date: 9 September 2025

Time: 3:30 PM

Venue: DCCC Auditorium, 2nd Floor, D314.

Coffee/Tea: 3.00 to 3:30 PM

Abstract:

Machine learning is a field of science that focuses on discovering and modeling complex patterns in data, particularly in systems that are dynamic, nonlinear, and multiscale. The atmosphere, with its constantly evolving weather, provides an ideal testbed for such approaches. Weather systems range from calm and stable conditions to highly chaotic states, encompassing phenomena from smooth laminar flows to fully developed turbulence, and extending across spatial scales from local regions to global circulation. In this talk, I will present a few applications of machine learning in weather studies, highlighting how these methods can be used to analyze, understand, and improve predictions of complex atmospheric processes.

About the speaker:

Dr. S. R. Kannan (Ramanujam) is an Associate Professor in the School of Mechanical Sciences at IIT Bhubaneswar. His research spans interdisciplinary areas, with a focus on renewable energy, atmospheric sciences, and the modeling and analysis of complex weather patterns. He is actively engaged in applying advanced computational and data-driven techniques to address challenges at the intersection of engineering and climate science. He can be reached at sramanujam@iitbbs.ac.in.

// ALL ARE WELCOME //