



Prof. Anupam Dewan
Department of Applied Mechanics

Research Expertise

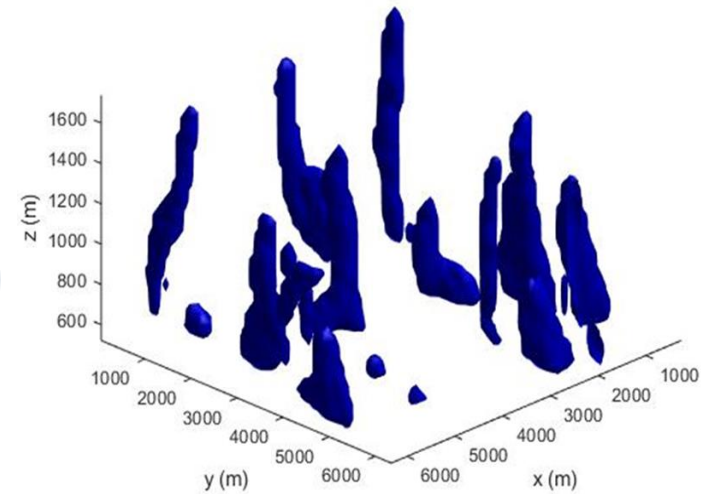
***CFD and Heat Transfer,
Large Eddy Simulation,
Turbulence Modelling***

**A Study of
Convection Using
Cloud Resolving
Large Eddy
Simulation (LES)**

Research Expertise

***Climate Model Validation and
Development, Tropical
Convection,
Climate Change***

Clouds Resolved in LES



Prof. Sandeep Sahany
Center for Atmospheric Sciences



Gaurav Dogra
M. Tech. (Thermal)
Ph.D. Student

Atmospheric convection plays a crucial role in the vertical transport of heat, moisture and momentum. Various kinds of clouds and associated rainfall that we see are essentially the manifestation of atmospheric convection. Most of the moisture in clouds comes from ocean surfaces via turbulent fluxes. Thus, atmospheric convection is a combination of fluid mechanics and heat transfer in the earth's atmosphere. The present study aims to augment the current state of understanding of this phenomenon using a high resolution cloud resolving large eddy simulation model.