



## **Cloud Simulation over Western Ghats with a Non-hydrostatic Meso-scale Model**

Krushna Chandra Gouda and Prashant Goswami  
C-MMACS, BANGALORE, India (kcgouda@cmmacs.ernet.in)

The Western Ghats mountain range along the western coast of India with an average elevation of about 1200 metres plays an important role as a site for hydro-electric power generation. Western India has been facing the water shortage problem due to less rainfall since many years. Artificial rainfall from cloud seeding is a solution for this problem. To implement the cloud seeding technique to enhance the rainfall over the western India, a series of numerical experiment for the cloud simulation has been carried out using the high resolution Japan Meteorological Agency (JMA) nonhydrostatic model (NHM). The amounts of liquid and ice water in clouds, cloud temperature, effect of wind direction and speed are considered in the present study.