

Scientific Research Proposal in National Radar Meteorology Program (NARM):

Last date of application: 31st January 2020

The Ministry of Earth Sciences (MoES), Government of India, announced [a proposal on National Radar Meteorological Program](#) (NARM) from universities, research / academic institutions in the country for funding for focused research in the specific areas listed below under the Project Evaluation and Monitoring Committee (PAMC) of MoES.

- Radar derived real-time rainfall estimates for flood forecasting
- Modelling Quantitative Precipitation Estimation (QPE) errors
- Mesoscale and severe weather analysis using Direct Web Remoting (DWR) Data which will include initiation and dissipation of thunderstorms
- Climatology of Cloud clusters based on radar data.
- Nowcasting methods using DWR data
- Vertical structure of clouds and in turn deriving latent heating profiles during monsoon season
- Convective and stratiform precipitation fraction in different regions
- Analysis of polarimetric radar observations for a better understanding of the microphysics of precipitation. Integration of radar and lightning network data sets for thunderstorm studies
- Assimilation of radar observations in high-resolution numerical models

It is proposed that more DWRs will be added soon for better coverage with better accuracy in tracking weather systems. The data from these radars are now being used to assimilate atmospheric data that goes into the various weather forecast models being run in the country. It is preferable to carry out model development activities using the Weather Research and Forecasting (WRF) model or the regional version of the unique model. MOES will provide DWR data and support using WRF and regional integrated models.

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