

## **PROJECTS & COLLABORATIVE PROGRAMMES**

Multi-institutional, national and international collaborative research programmes have been the core of CSIR-4PI research. CSIR-4PI today has active collaboration with a number of national and international institutions.

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## **CSIR Projects**

**Mission Mode Project: Intelligent Systems (IS) - Intelligent technologies and solutions - PI: Patra G K**

**CSIR Young Scientist Scheme: Assessment and forecasting of extreme weather events over the Indian region using Mesoscale Model - PI: Rakesh V**

## **Grant-in-aid Projects**

**Modelling of marine biogeochemical cycles in the Indian Ocean, MoES – PI: Sharada M K**

**Investigation of mega city effects on the genesis and intensity of extreme rainfall events and their impact, DST - PI: Himesh S, Co-PI: Goswami P**

**Role of background error statistics in mesoscale data assimilation, DST - PI: Rakesh V, Co-PI: Goswami P**

**Extreme weather and climate events in the 21<sup>st</sup> century projections from different climate scenario, DST - PI: Ramesh K V, Co-PI: Goswami P**

**Investigation of relative roles of local and large-scale circulation in the dynamics of cloudburst using simulation with a non-hydrostatic model, DST - PI: Gouda K C**

**Carbon cycle studies of the Indian Ocean using ocean biogeochemical model simulation and observations, DST Women Scientist Scheme A, PI: Chikka Kalyani Devasena, Swathi P S**

**National Carbonaceous Aerosols Programme (NCAP): Working Group III - Carbonaceous aerosols emissions, source apportionment and climate effects, MoEF&CC - PI: Sajani Surendran**

**Geological characterization of the Kashmir valley with the objective of quantifying probabilistic hazard and risk in the high risk areas of the valley using a logically integrated set of GEO-Scientific investigation, MoES - PI: Imtiyaz A Parvez**

**Integrated system dynamical model to design and testing alternative intervention strategies for effective remediation & sustainable water management for two selected river basins of Indian Himalaya, MoEF&CC - PI: Ramesh K V**

**Enhancement of the quality of livelihood opportunities and resilience for the people in the Indian Himalayas, through design of intervention strategies aimed at maximizing resource potential and minimizing risks in urban-rural ecosystem, MoEF&CC - PI: Ramesh K V**