

## **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**

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

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

**CSIR Niche Creating High Science Project: Carbon and nitrogen cycling in the earth system (CNCES) -***PI: Sharada M K*

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

**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: C Kalyani Devasena, Swathi PS*

**National carbonaceous aerosols programme (NCAP): Working Group III - Carbonaceous aerosols emissions, source apportionment and climate effects,** Ministry of Environment, Forest and Climate Change (MoEFCC) GOI - *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,** Department of Earth Science, GOI- *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,** MOEFCC - *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,** MOEFCC - *PI: Ramesh K V.*

**Improving the prediction of the extremes of the interannual variation of the Indian Summer Monsoon Rainfall (ISMR) by CFSv2,** IITM, Pune and MOES - *PI: Rajendran K*

**Hyperspectral Imaging for sharper definitions of Himalayan Ecosystems and its high value plant species under climate uncertainties,** BHU and MOEFCC - *PI: Ramesh K V.*

**Analysis of urban 'heat islands', air pollution dynamics and extreme Heat wave phenomena in India and Russia,** DST - *PI: Gouda K C*

## **Collaborative Project**

**Collaborative Research Project on Climate Change for Patna and its Agglomeration, NEERI, Nagpur - *PI: Gouda K C***

## **In-House Projects**

**Monitoring continuously operating CSIR-4PI GNSS station located in the IISC Campus and real-time operational data hub at CSIR-4PI - *PI: Sridevi Jade***