

COLLABORATIVE PROGRAMMES & PROJECTS

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

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- *CSIR Network Projects*
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- *11th Five Year Plan Projects*
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CSIR Network Projects

Setting up of State-of-the-art HPC Facility for CSIR, *PI: Thangavelu R P and Mudkavi V Y*

Network Partners:

CSIR National Aerospace Laboratories (NAL)

12th Five Year project

Advanced Research in Engineering & Earth Sciences (ARiEES) - *Nodal officer: Sridevi Jade*

Nodal Lab: CSIR-4PI

Participating Labs:

CSIR National Aerospace Laboratories (NAL)

CSIR National Institute of Oceanography (NIO)

CSIR National Geophysical Research Institute (NGRI)

CSIR Central Building Research Institute (CBRI)

CSIR North East Institute of Science and Technology (NEIST)

Indian Aquatic Ecosystems: Impact of Deoxygenation, Eutrophication and Acidification (Indias Ideas) Physical Sciences Cluster: Modelling and Simulation of Subsurface Oxygen Distribution in the North Indian Ocean, *PI: Sharada M K, Co-PI: Swathi P S*

Nodal Lab: CSIR National Institute of Oceanography (NIO)

Participating Lab:

CSIR-4PI

CSIR Centre for Cellular and Molecular Biology (CCMB)

CSIR National Geophysical Research Institute (NGRI)

Probing The Changing Atmosphere and its Impacts in Indo-Gangetic Plains and Himalayan Regions (Aim-IGPHim), *PI : Swathi P S, Co-PI: Indira N K*

Nodal Lab: CSIR National Physical Laboratory (NPL)

Participating Lab:

CSIR-4PI

CSIR Central Road Research Institute (CRR)

CSIR Institute of Himalayan Bioresource Technology (IHBT)

CSIR Institute of Minerals and Materials Technology

(IMMT)

CSIR National Botanical Research Institute (NBRI)

CSIR National Environmental Engineering Research Institute (NEERI)

CSIR North East Institute of Science and Technology (NEIST)

Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart Built Environment (EDMISSIBLE): GPS based Integrated Landslide Modelling for Realistic Hazard Assessment, *PI: Sridevi Jade*

Nodal Lab: CSIR Central Building Research Institute (CBRI)

CSIR Electronics Electronics Engineering Research Institute, (CEERI)

Participating Lab:

CSIR-4PI

CSIR Central Road Research Institute (CRR)

CSIR Central Scientific Instruments Organisation (CSIO)

CSIR National Environmental Engineering Research Institute (NEERI)

CSIR North East Institute of Science and Technology (NEIST)

CSIR Central Glass & Ceramic Research Institute (CGCRI)

CSIR Central Mechanical Engineering Research Institute (CMERI)

Genomics and Informatics Solutions for Integrating Biology (GENESIS), *PI: Thangavelu R P*

Nodal Lab: CSIR IMTECH

Participating Lab:

CSIR Centre for Cellular and Molecular Biology (CCMB)

CSIR Central Drug Research Institute (CDRI)

CSIR-4PI

CSIR Central Leather Research Institute (CLRI)

CSIR Central Institute of Medicinal and Aromatic Plants (CIMAP)

CSIR-Institute of Genomics & Integrative Biology (IGIB)

CSIR Institute of Himalayan Bioresource Technology (IHBT)

CSIR Indian Institute of Chemical Biology (IICB)

CSIR Indian Institute of Chemical Technology (IICT)
CSIR Indian Institute of Toxicology Research (IITR)
CSIR National Chemical Laboratory (NCL)
CSIR National Botanical Research Institute (NBRI)
CSIR Institute for Interdisciplinary Science and Technology (NIIST)
CSIR Head Quarters

A High performance computing (HPC) system for simulation and visualization of deep mining and geosciences problems, Development of suitable design methodology for extraction of coal at greater depths (>300 m) for Indian geomining conditions (Deep Coal), PI: Patra G K

Nodal Lab: CSIR Central Institute of Mining and Fuel Research (CIMFR)

Participating Lab:

CSIR Central Mechanical Engineering Research Institute (CMERI)

CSIR-4PI

CSIR National Geophysical Research Institute (NGRI)

11th Five Year project

Visualization Infrastructure for Scientific Insight by Observation and Navigation (VISION) – PI: Patra G K

Grant-in-aid Projects

Analysis of Indian National GNSS Network Data for Reference Frame Realisation, PWV and TEC Computation – PI: Sridevi Jade

Plate Kinematics Geodynamics and Earthquake Occurrence Processes in the Andaman Nicobar Region Using Real Time Geodetic and Seismological Observations and Earthquake Awareness Centre at Port Blair, MoES – PI: Sridevi Jade

Collaborating Institutions:

CSIR National Geophysical Research Institute, Hyderabad

Future Climate Change Projection for Kerala using High Resolution Climate Model, Department of Environment and Climate Change, Government of Kerala – PI: Rajendran K, Co-PI: Sajani Surendran

Collaborating Institutions

Divecha Centre for Climate Change (DCCC)

Indian Institute of Science (IISc), Bangalore

Modelling of Marine Biogeochemical Cycles in the Indian Ocean, MOES – PI: Sharada M K

Shock Mitigation using Tapered Granular Alignments, ARMREB, DRDO – PI: Krishna Mohan T R

Indo-Norwegian Network Project: Earthquake Hazard and Risk Reduction on the Indian Subcontinent (RRISC), Norwegian Embassy in India – PI: Parvez I A

Diagnosis of Increased Seismic Hazard in Himalayas and Adjacent Territories. (DST-RFBR), – PI: Parvez I A

Integrating Disease Prediction with Weather and Climate Models Seamlessly, British Council, UK-IERI – PI: Goswami P, Co-PI: Gouda K C

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 21st Century Projections from Different Climate Scenario, DST - PI: Ramesh K V, Co-PI: Goswami P

Modelling for Pro-Active Disease Control for Cardamom Systems: A Pilot Study over Idukki, Kerala, ICRI – PI: Goswami P, Co-PI: Ramesh K V

Investigation of Relative Roles of Local and Large-scale Circulation in the Dynamics of Cloudburst using Simulation with a Non-hydrastatic Model, DST - PI: Gouda K C

Mathematical Modeling of some Nano Fluid Flows, National Board of Higher Mathematics, Vellore Institute of Technology – PI: Srinivas S, Co-PI: Ramamohan T R

Collaborative Projects

Climate Change and Variability: Modeling, Analysis and Downscaling in the context of Indian Monsoon, India – PI: Rajendran K, Co-PI: Sajani Surendran

Collaborating Institutions

Divecha Centre for Climate Change (DCCC)
Indian Institute of Science (IISc), Bangalore
Meteorological Research Institute (MRI/JMA)

Aqua-Planet Experiment Project: WCRP/WGNE Project – Co-PI: Rajendran K

Collaborating Institutions:

Meteorological Research Institute (MRI)

Active Tectonics of the Darjeeling-Sikkim Himalayas using Global Positioning System (GPS) based Geodesy – PI: Sridevi Jade, Co-PI: Malay Mukul

Collaborating Institutions:

IIT Mumbai

Operation of Permanent and Campaign Mode GPS Stations for Quantification of Tectonic Deformation Field in Himalayan Terrain – PI: Sridevi Jade and Kireet Kumar

Collaborating Institutions:

GBPHIED, Almora

In-house Projects

Monitoring Continuously Operating CSIR-4PI GPS Station Located in the IISc Campus – PI: Sridevi Jade.

Site-specific Ground Motion Modelling and Micro-zonation Studies in Delhi City– PI: Parvez I A