

COLLABORATIVE PROGRAMMES & PROJECTS

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

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CSIR Network Projects

Integrated Analysis for Impact, Mitigation and Sustainability (IAIMS): Regional Climate Modelling at Decadal Scale – PI: Goswami P

Nodal Lab: CSIR-4PI (erstwhile C-MMACS)

Network Partners:

CSIR Central Institute of Medicinal and Aromatic Plants (CIMAP)

CSIR Indian Institute of Chemical Biology (IICB)

CSIR Indian Institute of Chemical Technology (IICT)

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): Data Intensive Modelling and Crowd Sourcing Approach - Nodal officer: Sridevi Jade,

Nodal Lab: CSIR-4PI (erstwhile C-MMACS)

Participating Labs:

CSIR National Aerospace Laboratories (NAL)

CSIR National Institute of Oceanography (NIO)

CSIR National Geophysical Research Institute (NGRI)

CSIR Central Building Research Institute (CRRI)

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 (erstwhile C-MMACS)

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 (erstwhile C-MMACS)

CSIR Central Road Research Institute (CRRI)

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, Co-PI: Vijayan M S M

Nodal Lab: CSIR CBRI

Participating Lab:

CSIR-4PI (erstwhile C-MMACS)
CSIR Central Road Research Institute (CRR I)
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 Electronics Engineering Research Institute, (CEERI)
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 (erstwhile C-MMACS)
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

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 CIMFR

Participating Lab:

CSIR Central Mechanical Engineering Research Institute (CMERI)
CSIR-4PI (erstwhile C-MMACS)
CSIR National Geophysical Research Institute (NGRI)

11th Five Year project**Visualization Infrastructure for Scientific Insight by Observation and Navigation (VISION)
– PI: Patra G K**

Augmentation of CSIR Multi-tera FLOPS Supercomputing Facility: PI: Anil Kumar V

CSIR Empower Project

Quantitative Estimation of the Prevalence and Nature of IP Spoof based Denial-of-Service Attacks in the Indian part of the Internet through Backscatter Analysis of Network Telescope Data, PI: Anil Kumar V

Grant-in-aid Projects

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

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

Impact of Physical Assimilation of Vertical Profiles of Latent Heating and Moisture on Short-Range Weather Forecasting, ISRO Megha-Tropiques Mission Project – PI: Rajendran K, Co-PI: Srinivasan J

Collaborating Institutions

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

Seismic Hazard and Risk Assessment based on Pattern Recognition: Himalayas and Adjacent Territories, DST-RFBR – PI: Parvez I A

Crustal and Mantle Structure along the East-West Corridor across Dharwarcraton for Constraining Models of the Crustal Evolution, DST – PI: Parvez I A

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

Industrialization of Weather Informatics, Services and Technologies, KSNDMC, PI: P Goswami

Investigation of Mega City Effects on the Genesis and Intensity of Extreme Rainfall Events and their Impact, DST - PI: S Himesh, Co-PI: P Goswami

Role of Background Error Statistics in Meso-scale Data Assimilation, DST - PI: V Rakesh, Co-PI: P Goswami

Extreme Weather and Climate Events in the 21st Century Projections from Different Climate Scenario, DST - PI: K V Ramesh, Co-PI: P Goswami

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

Empirical modelling and Relationship of the Primary Productivity with Other Ocean Parameters in the Indian Ocean - PI: Indira N K

Monitoring Continuously Operating CSIR-4PI (erstwhile C-MMACS) GPS Station Located in the IISc Campus and Real-Time Operational Data Hub at CSIR-4PI (erstwhile C-MMACS), PI: Sridevi Jade.

Site-specific Ground Motion Modelling And Microzonation Studies in Delhi City, PI: Parvez I A