

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 12th Five Year Plan Network Projects*
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CSIR 12th Five Year Plan Network Projects

Advanced Research in Engineering & Earth Sciences (ARiEES): Data Intensive Modelling and Crowd Sourcing Approach - 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 (CRRRI)

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 (CRRRI)

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 CBRI

Participating Lab:

CSIR-4PI

CSIR Central Road Research Institute (CRRRI)

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
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
CSIR National Geophysical Research Institute (NGRI)

Vulnerability assessment and development of adaptation strategies for climate change impact with special references to costs and island ecosystems of India (VACCIN), PI: Rajendran K / Sajani Surendran

Nodal Lab: CSIR-NISCAIR

Participating Lab:

CSIR-National Institute of Science Communication And Information Resources
CSIR-Institute of Genomics & Integrative Biology (IGIB)
CSIR Central Road Research Institute (CRRRI)
CSIR National Environmental Engineering Research Institute (NEERI)
CSIR- Central Salt & Marine Chemicals Research Institute
CSIR-4PI
CSIR National Institute of Oceanography (NIO)
CSIR Institute for Interdisciplinary Science and Technology (NIIST)
CSIR National Geophysical Research Institute (NGRI)
IIT Kharagpur
Kolkata University
Fishery Survey of India

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: S Himesh, 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*

Diagnosis of Increased seismic hazard in Himalayas and adjacent territories, DST, Government of India, DST-Russian Federation of Basic Research - *PI: Imtiyaz.A.Parvez*

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 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*

Collaborative Projects

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 and real-time operational data hub at CSIR-4PI - *PI: Sridevi Jade*

Assessment and forecasting of Extreme Weather Events over the Indian region using Mesoscale model, In-house project under CSIR YSA Scheme- *PI: Rakesh V*

Site-specific ground motion modelling and microzonation studies in Delhi City, *PI: Parvez I A*