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Collaborative Programme & Projects

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7.1 Sponsored and Collaborative Projects

Impact of GCM-generated Dynamical Boundary Fields on Meso-scale Simulations, SAC/DOS – **P Goswami, S Himesh**

High-Resolution Regional Atmospheric Analysis (HIRRAA) through Meso-scale Observation Network for Urban System (MONUS), CSIR, **P Goswami, G K Patra, K V Ramesh**.

Development of Indian Ocean Community Model, Department of Ocean Development (India) – **P S Swathi, C Kalyani Devasena**.

Assimilation of In-situ and Satellite Altimeter Data into an OGCM, Department of Ocean Development (India) – **P S Swathi, C Kalyani Devasena**.

Thermal Structure and Mixed Layer Variations of the Indian Ocean in an OGCM and Intercomparison with Institution and Satellite Observations, Department of Science and Technology (India) - **C Kalyani Devasena, P S Swathi**.

Carbon Source and Sinks in Asia and the Indian Ocean, GOF, British High Commission- **P S Swathi, M K Sharada, N K Indira, K S Yajnik, R P Thangavelu**.

The Impact of Physical Assimilation of Vertical Profiles of Latent Heating and Moistening on Short Range Numerical Weather Prediction, ISRO - **K Rajendran, J Srinivasan**.

Establishment of Continuously Running GPS Station at WBREDA Campus, Durgapur, West Bengal, Department of Science and Technology (India) - **Malay Mukul, S P Gon Chaudhuri, WBREDA**.

Active Tectonics in the Shillong Plateau using Global Positioning System (GPS) based Geodesy, Department of Science and Technology (India) - **Malay Mukul, Sridevi Jade**
A Kinematic Study of Suspected Major Active Shear/Fault Zones in the West Southern Peninsular Shield of India: Implications on Seismogenesis, Department of Science and

Technology (India) - **Sridevi Jade, Anil Earnest, M S M Vijayan, P Dileep Kumar**

Dynamics of Continental Collision Process and Rheology of Lower Crust based on GPS Studies in Indian Subcontinent, Department of Science and Technology (India) - **Sridevi Jade, M S M Vijayan**

GPS Re-measurements to Quantify Deformation in Uttaranchal and Ladakh Himalayas, Department of Science and Technology (India), - **Sridevi Jade, P Dileep Kumar, M B Ananda**

Microzonation Investigations and Study of Building Parameters in the Anjar (Kutch) Area using Microtremor Recordings, Department of Science and Technology (India) – **Imtiaz A Parvez, Jean-Luc Cahtelain**.

Realistic Site-Specific Hazard Assessment for Mega-Cities Utilizing Modelling Techniques, Department of Science and Technology (India) - **Imtiaz A Parvez, Giuliano F Panza**.

Site Effects in Ahmedabad based on Array Observations of Microtremors, Department of Science and Technology (India) - **Imtiaz A Parvez**.

Inertial Effects on Forced Particles in Unsteady Flow at Low Reynolds Numbers, Department of Science and Technology (India) – **T R Ramamohan, P S Swathi**

Finite Element Modeling of Thermomechanical Behavior and Microstructural Evolution in Steel during Hot Deformation Processes, Department of Science and Technology (India) - **Surendra Kumar**

Analysis and Detection of a new Class of Denial-of-Service Attacks on the Internet, Ministry of Information Technology (India) - **V Anil Kumar, G K Patra, R P Thanagvelu**.

7.2 Joint Projects with Laboratories

Carbon Fluxes in India and Central Asia, IIAP, Bangalore - **N K Indira, P S Swathi, V K Gaur**

Variations in Deformation and Kinematics along and across the Himalayan arc through time: Insights from the Darjeeling-Sikkim-Tibet Transect, National Science Foundation (USA) - **Malay Mukul** & G Mitra (University of Rochester, Rochester, USA).

Aqua-planet Experiment Project (APE) of WCRP/WGNE, MRI, Japan – A Kitoh and **K Rajendran**

7.3 In house Project

Long-range High Resolution Forecast of Monsoon Rainfall - **P Goswami, K C Gauda.**

Empirical Modelling and Relationship of the Primary Productivity with other Ocean Parameters in the Indian Ocean - **N K Indira, P S Swathi, M K Sharada.**

Maintenance and Monitoring of Continuously Operating C-MMACS GPS Station Located in the IISc Campus - **Sridevi Jade**

Site-specific Ground Motion Modeling and Microzonation Studies in India Megacities - **Imtiyaz A Parvez**

Network Security in an Inter-networked Environment - **R P Thangavelu, V Anil Kumar, G K Patra.**

7.4 CSIR Network Project

Sub –Task I: Computational Mechanics for Modelling, Analysis and Design of High-performance Structures, Materials and Process Applications, Participating Labs: G MMACS, SERC-Chennai, RRL-Bhopal, RRL-Trivandrum, NML-Jamshedpur- **Nagesh Iyer.**

Sub –Task II: Multi-scale Modelling Platform for Environmental Forecasting and Management, Participating Labs : C-MMACS, NEERI-Nagpur, NIO-Goa, RRL-Bhubaneshpur, CRRI-Roorkee, CBRI-New Delhi- **P Goswami.**