Dr. Arya Paul

Dr. Arya Paul has developed an ocean data assimilation system for the operational configuration of Regional Ocean Modelling System (ROMS) at INCOIS. LETKF-ROMS in INCOIS assimilates in-situ temperature and salinity and satellite track data of sea surface temperature. This assimilation system was completely developed in-house by Dr. Arya Paul and his team of two scientists. Dr. Arya and the team has devised a new innovative approach to arrest the collapse of the ensemble spread (or filter divergence) which is important for a sustained improvement in ocean state analysis. Dr Arya and his team has also developed an innovative scheme to prescribe flow dependent observation error covariance, which ensures that the spatio-temporal variability observed in the representative errors (RE) in observations are fed into the assimilation system. This is the first time an ocean data assimilation system has been developed in India which can be directly used in operational oceanography. With the introduction of this data assimilation system in the operational ocean forecast system, INCOIS has placed itself in an elite class of a few countries which have the capability and infrastructure to make operational ocean predictions based on data assimilated numerical ocean circulation models. INCOIS is now operationally generating Regional Analysis for Indian Ocean (RAIN) using the newly developed LETKF-ROMS configuration.

Other works of Dr Paul the significant basin-wide barotropic sea level variability in the tropical Indian Ocean during December–April forced by a small patch of wind over the Eastern Indian Ocean, associated with Madden–Julian Oscillations (MJO), the development and operational configuration of Search and Rescue Aid Tool (SARAT), the effect of data on ocean re-analysis, etc. He has published several papers in peer reviewed national and international journals including the Nature Communication.

Dr. Arya Paul is awarded the Certificate of Merit for this outstanding contribution in the field of Ocean Science and Technology.

Shri A.A. Gnanaraj

Shri A. A. Gnanaraj is involved in development of Integrated Mining System protocols and associated systems and analysis of deep-water flexible riser system. Development of Remotely operated in-situ deep water soil tester (6000 m). Procurement of deployment system and equipment. Hyperbaric chamber maintenance and involved in pressure testing of sub-sea components/equipment's for all the groups at NIOT & other Govt. organisations. Design and realisation of pressure enclosures for 6000 m depth operation.

Shri A.A. Gnanraj is awarded the Certificate of Merit for his outstanding contributions in the field of Ocean Science and Technology.

Dr. Anil Kumar Vijayan

Dr. Anil K Vijayan has done commendable work of implementing the field campaign of MEDAS, meticulously planned and motivated the Project Scientists for its successful completion. The phytoplankton samples collected are being analysed that generates a huge dataset in the Eastern Arabian Sea for the first time covering all seasons from coast to open ocean. He is a committed scientist with tenacity to participate on cruises and encourage others to work with enthusiasm.

Dr. Anil Kumar Vijayan is awarded the Certificate of Merit for his outstanding contributions in the field of Ocean Science and Technology.

Dr. Ajeet Pandey

Dr. Ajeet Pandey has been involved in various scientific activities like Seismic Hazard Microzonation studies including, Geotechnical and Geophysical investigations, 24 x 7 real time earthquake monitoring in the country, activities related to Indian Seismic and GNSS Network (ISGN) and research work in different aspects of seismology. Seismic Hazard assessment and ground motion simulation is his core area of research. He has published valuable scientific research papers in National and International Journals of repute. Dr. Ajeet Pandey, has made significant contribution in undertaking and coordinating the various field activities and database management for achieving the goal of completion of seismic hazard microzonation of NCT of Delhi.

Dr. Ajeet Pandey is awarded the Certificate of Merit for his outstanding contributions in the field of Geosciences and Technology.

Dr. K. Maya

Dr. K. Maya works at NCESS. She has done extensive studies on environmental impacts of mining and quarrying of minor minerals from the river catchments of Southern Western Ghats. At present she is engaged in the studies on the origin and occurrence of cold and thermal springs in the west coast of India. Through her recent studies in Dhakshina Kannada District of Karnataka State, for the first time, identified the existence of a Subsurface Warm Water Zone (20-40m below ground level) covering an area of over 40 hectares in Irde,