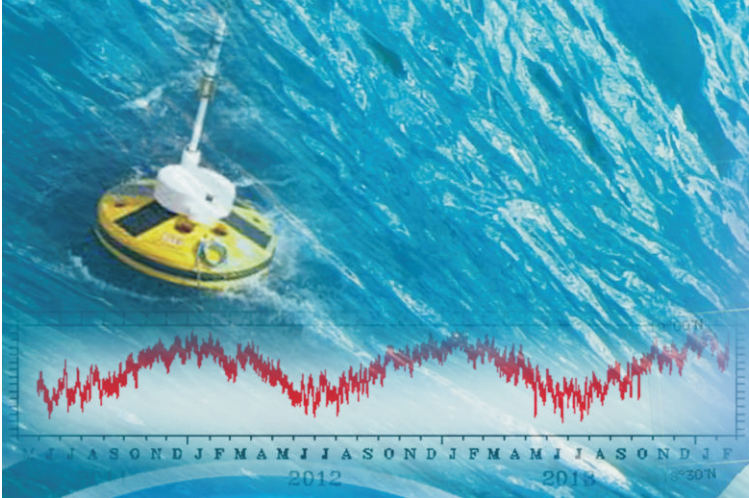
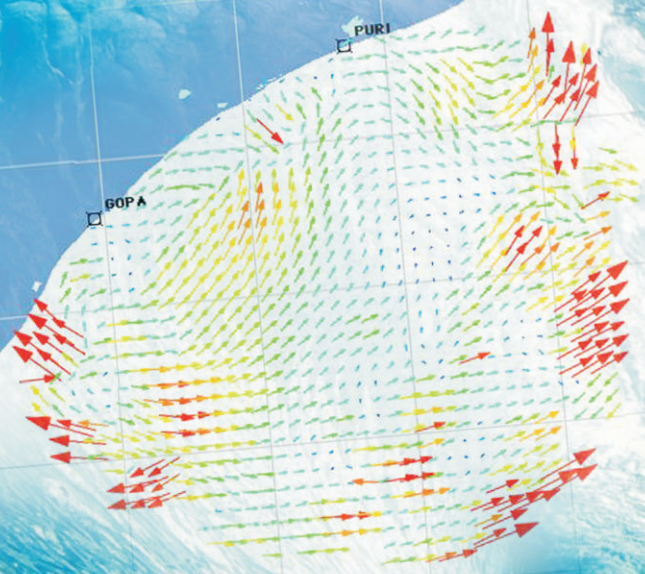
ITCOocean

International Training Course on "Emerging Trends in Ocean Observations and Ocean Data Analysis"

4-15 July, 2016





Jointly Organized
by
International Training Centre for
Operational Oceanography (ITCOocean)
ESSO-INCOIS
Hyderabad, India
and
Partnership for Observation of the
Global Oceans (POGO)
Plymouth, United Kingdom

Overview:

Operational oceanography involves reliable, long term observations of the world's oceans, rapid interpretation and dissemination of data and generation of products and advisories that can be distributed to users in near real time. The recent advances made in observational technologies in the fields of sensors, platforms and real-time communications now provide unprecedented capability to observe the oceans in detail. Scientists worldwide are working towards the establishment of a comprehensive network of observational instruments that will criss-cross the world's oceans. Data from such ocean observation systems are delivered both in real-time and delayed mode to the scientific community. These data are extensively used in operational weather, ocean and climate forecasting. These systems provide critical data for assimilation in ocean analysis and forecast models. The new knowledge acquired from these observing systems has led to improved understanding of different phenomena and processes of the global tropical ocean basins, particularly of the Indian ocean-monsoon coupled system. With evolving technological developments, we have new challenges and opportunities for the ocean community. However, it is necessary to enhance the capacity of some of the countries to make the much required ocean observations and train personnel to use the data from them.

The training programme will address these issues for the capacity building of the countries in the Indian Ocean region, leading to better utilization of the high quality data sets and better services to the people in this region.

Course Objectives:

The lectures will cover the following broad topics:

- An overview of recent advances in ocean observations, data sets and applications
- Fundamentals of time series analysis techniques (Filters in time and space, Fourier analysis, Confidence tests, EOF)
- An overview of ocean models and data sets, quality assessment of operational ocean forecasts
- Hands-on exercises on analysis of data

Faculty Members:

- Dr. Eric D'Asaro, Applied Physics Laboratory and School of Oceanography, University of Washington, USA
- Dr. J. Thomas Farrar, Department of Physical Oceanography, Woods Hole Oceanographic Institution, USA
- Dr. M Ravichandran, Indian National Centre for Ocean Information Services, Hyderabad, India
- Dr. D. Shankar, National Institute of Oceanography, Goa, India
- Dr. V. Venugopal, Centre for Atmospheric and Oceanic Sciences, Indian Institute of Science, Bangalore, India
- Dr. V. Vinu, Indian Institute of Tropical Meteorology, Pune, India
- Dr. Francis P A, Indian National Centre for Ocean Information Services, Hyderabad, India

In addition, scientists from INCOIS, Hyderabad and other Indian institutions will be part of the faculty.

Who can apply?

University students pursuing their research career in Oceanography, staff of operational oceanographic centre, Government departments and decision makers involved with oceanographic research and services. **Priority will be given to participants from Indian Ocean rim countries.** ITCOocean, being part of UNESCO is committed to promote gender equality. Therefore, applications from women are strongly encouraged.

Prerequisites:

Masters or PhD in Meteorology/Oceanography/Atmospheric Science/Physics.
Basic Mathematics (at Graduate/Post-Graduate level) and computer skills will be assumed.

Venue:

The training course will be held at Indian National Centre for Ocean Information Services (INCOIS), Hyderabad (India). INCOIS has a state-of-the-art E-Class room facility for conducting training programmes. In addition, it has facility to link participants, guest faculty from different parts of the world in the class room mode, a well maintained computer laboratory with desk top computers/laptops, satellite ground station to receive satellite data, dedicated internet access to provide real time data. The training course is co-sponsored by the Partnership for Observation of the Global Oceans (POGO). POGO is a partnership of institutions involved in oceanographic observations, scientific research, operational services, education and training. POGO Secretariat is hosted by Plymouth Marine Laboratory, United Kingdom.

Course Fee and Financial support:

There is no course fee charged for the training course. The participants are expected to make their own arrangements for all expenses. However, INCOIS can provide accommodation at their Hostel for selected candidates on payment basis. **Preference in admission will be given to candidates who are supported by their own organizations.**

Important Dates:

Last date for Online Application Submission: **10 May, 2016**
Intimation to Selected candidates: **25 May, 2016**
Course Date: **04-15 July, 2016**

Notes:

- For more information and online submission of application, please visit the course website at http://www.incois.gov.in/portal/ITCOocean/etoo.jsp
- Medium of instruction is English only
- While filling the online application form make sure that your highest degree with Mathematics as one of the subject is entered along with other qualifications
- Interested candidates should upload the following documents:
  - Latest passport photograph
  - Endorsement letter (from research guide, Employer or host organization, in case of asking sponsorship)
  - Copy of first page of the passport (only for foreign participants)
- Both full-and-co-sponsoring are available for a limited number of foreign participants. The selection of participants who will be sponsored will take into consideration :
  - Applicant country's development status
  - Endorsement of the candidate's application by his/her employer and any co-sponsoring
  - Expected impact of the training for applicant's institution
  - Possibility of any co-sponsorship (co-sponsorship is an asset for selection)
  - Highest priority will be given to participants originating from the Indian Ocean rim countries

Contact Address:

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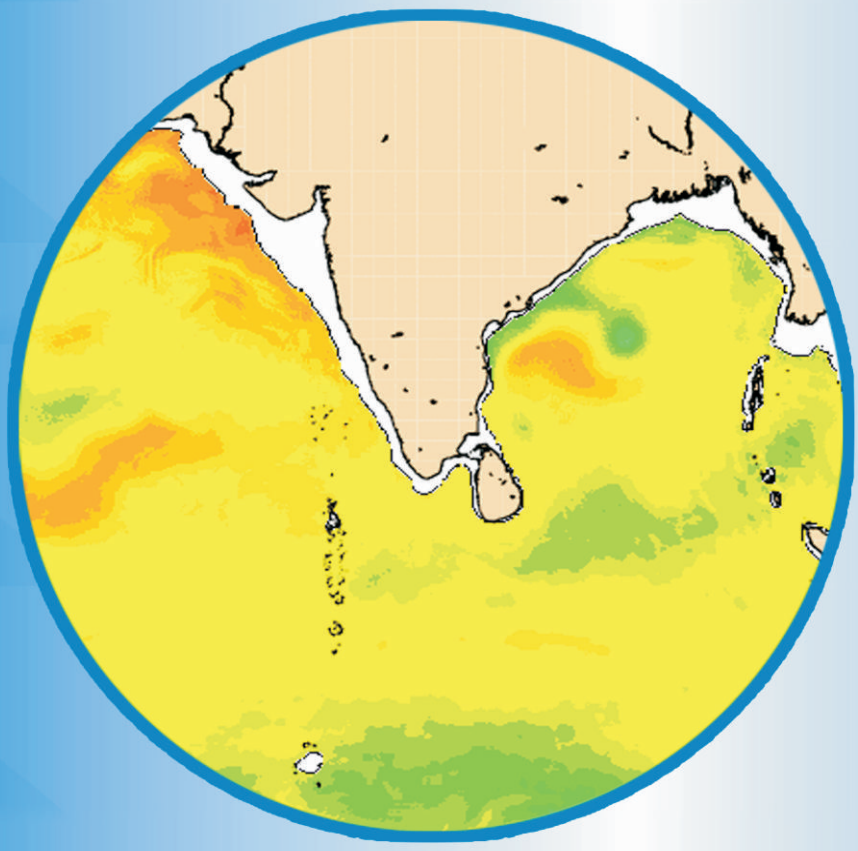

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