



**TIFR Centre for Interdisciplinary Sciences,
Narsingi, Hyderabad 500075**

Seminar

*The System of Coastal Currents Around the Indian
Subcontinent: What is our current understanding?*

Satheesh C. Shenoi

**Indian National Centre for Ocean Information Services,
Hyderabad**

Ancient Indian and Arabic literature has recorded the existence of the annual cycle of monsoon winds over the North Indian Ocean (NIO) and their use by the maritime community for trade. However, the Indian Ocean remained unexplored, scientifically, till the International Indian Ocean Expedition (IIOE) during 1962-1965. Though IIOE gave an overall picture of Indian Ocean, very little was known about the seasonal cycle of ocean currents that reversed their directions; in particular, the dynamics that underlined the connection between the monsoonal winds and the ocean currents. Later, a series of oceanographic cruises undertaken during 1987-1994 mapped the circulation in the seas around India and described the seasonal cycle of coastal currents. The surprising finds lead to the development of new theories to explain the driving mechanisms. The theory based on equatorial Kelvin and Rossby waves and coastal Kelvin waves provide a frame work to explain intricate patterns of circulations in the north Indian Ocean. However, the questions what about the non-seasonal variability of the currents along the Indian coast, what drives them, etc. remained unanswered. This talk reviews the developments in our understanding of currents along the Indian coasts since IIOE, and presents the new observations that provided the evidences on non-seasonal variability of currents and some insights into their dynamics.

Thursday, November 7th 2013

11:30AM (Tea/Coffee at 11:15AM)

Seminar Hall, TCIS