Physical Research Laboratory, Ahmedabad
Special Colloquium 19-02

Speaker: **Dr. Shailesh Nayak**
Director, National Institute of Advanced Studies (NIAS), Bengaluru

Title: **"Environmental Changes and Future Earth: An Indian Perspective"**

Time: **Friday, 08 February 2019, 11.00 AM**

Venue: **K.R. Ramanathan Auditorium, PRL**

Abstract

Environmental changes including climate change being witnessed today have already started to cause a wide range of physical, economic and social impacts. In the past, many civilisations were lost due to such changes. In view of this, we need to acquire critical knowledge about to address challenges posed by such environmental changes such as increased frequency and intensity of extreme weather events. In order to reduce the risks and vulnerabilities as well as to increase our resilience to such events, collective efforts at global and national level are required to ensure prosperous and equitable future.

The environmental changes witnessed in India such as increase in atmosphere as well as ocean temperature, increased frequency of heavy rainfalls, cyclones, floods, etc. are in conformity with the global changes. We need to understand how and why such changes are occurring. Some of the efforts being made in India will be discussed. Next it is necessary to improve our understanding about Earth System Science. The challenge is to integrate the consequences of human activities to the Earth System and vice versa. The pros & cons to understand transformative processes for sustainability to secure our future will be discussed.

The Speaker

Dr. Shailesh Nayak is currently the Director of the National Institute of Advanced Studies, Bengaluru and Chancellor of the TERI School of Advanced Studies. He obtained his PhD degree in Geology from the M.S University of Baroda in 1980. He was 'Distinguished Scientist' in the Ministry of Earth Sciences and President, International Geological Congress during 2015-2017. He was the Secretary, Ministry of Earth Sciences, Government of India, during August 2008-2015, and provided leadership for programs related to earth system sciences. He has been credited with launching many research programs related to monsoon, air-sea interaction, changing water cycle, atmospheric chemistry, coastal vulnerability, climate services, polar science, etc. with US, UK, Germany, Japan, Australia, Norway and South Korea. He had set up HPC system having 1.1 Peta flops capacity for weather and climate research and operations. He had restructured meteorological activities in the country and thus improved weather and hazard related services.

He had set up the state-of-the-art tsunami warning system for the Indian Ocean in 2007 in just two years time, which is providing tsunami advisories to the Indian Ocean rim countries. He pioneered the development of algorithms and methodologies for application of remote sensing to coastal and marine environment, generated baseline database of the Indian coast, and developed services for fishery and ocean state forecast. This data base is extensively used for regulating coastal activities in India.

He is Fellow of the Indian Academy of Sciences, Bengaluru and the National Academy of Sciences, India, Allahabad. He has been awarded Honorary Degree of Doctor of Science by the Andhra University in 2011, Assam University in 2013 and Amity University in 2015. He was conferred the prestigious ISC Vikram Sarabhai Memorial Award 2012, Bhaskara Award for 2009, Fellowship of the International Society of Photogrammetry & Remote Sensing (ISPRS) and Academician of the International Academy of Astronautics (IAA) for his outstanding contributions in remote sensing and GIS. He has published about 150 papers in peer-reviewed journals.

Tea at 10:30 hrs
ALL ARE WELCOME