Institute Seminar on "Technical Higher Education System in India"

Topic: Some Thoughts on the Present and Future of Higher Technical Education in India

Speaker: Prof. Avijit Gangopadhyay

Venue: Room No. 101, Lab Complex (LBC), IIT Bhubaneswar

Date: 6th August 2019 (Tuesday) Time: 5.30 P.M. to 6.30 P.M.

The seminar began with welcome by Dr. C. N. Bhende (PIC Seminar) followed by brief introduction of the speaker.

Prof. Avijit started with the current scenario of the global population and economy in the connection with the development of India. He highlighted the key success of ISRO on the 'Chandrayaan-2'and India Meteorological Department (IMD) on the improved prediction skill in the recent years, which was only possible due to the recent development of the technology and communication systems.

The speaker highlighted short and selected set of comparisons of the different higher education systems being practiced in different countries such as Brazil, China, India and the United States. The survey also included the student, faculty and staff culture in those countries. One common issue, the speaker identified, is the lack of the semi-professionals. He suggested the short-term and long-term changes that can be experimented with in the current higher education setup in India, especially within the IITs. He recommend some courses for the 3rd and 4th year students: a) Academic Administration, b) Poor Economy, c) Technology and Human development. He also recommended a course with major in societal engineering and technology. Part-time, evening and online courses on skill development, knowledge development for the support staff and semi-professionals are also recommended. The proposed evolution in the education system can eventually contribute towards the achievement of the broader goals of the society.

Students and faculty members gathered were highly enthusiastic to interact with the speaker. One of the students asked following the trends of the Education System in US,

Prof. Avijit responded that cultures are different among the countries and we should address the problems by keeping our ancient culture intact.

Biography of the Speaker:

Prof. Avijit Gangopadhyay has been widely travelling since last thirty years and is closely associated with the higher education systems in various countries. He was instrumental in setting up the Center for Oceans, Rivers Atmosphere and Land (CORAL) in IIT Kharagpur, School of Earth Ocean and Climate Sciences in IIT Bhubaneswar and joint Masters degree programme in Engineering between IIT Kharagpur and the University of Massachusetts (UMass) at Dartmouth. He firmly believes that the present systems of high education in different countries could use a number of forward looking changes based on (i) our past and present experiences in individual countries, (ii) learning from each other and (iii) our mutual understanding of where the world is going in a collective sense.

Prof. Gangopadhyay is a professor at the School of Marine Science & Technology at UMass Dartmouth, where he was interim Dean and Associate Dean for seven years. He holds a BTech (1979) in Naval architecture from the Indian Institute of Technology Kharagpur, an MTech in applied mechanics from the Indian Institute of Technology Delhi and a PhD (1990) in ocean engineering from the University of Rhode Island. He was a research associate at Harvard University and a scientist at the Jet Propulsion Laboratory before joining UMass Dartmouth in 1997. He has held multiple visiting, distinguished and honorary professorships at Harvard, the Institute of Oceanography of the University of São Paulo (Brazil), the Indian Institute of Science (Bangalore), IIT Kharagpur, and IIT Bhubaneswar. He spends 6-8 weeks every year teaching and researching at various IITs and in Brazil. He has served as advisor and mentor to more than 40 MS and PhD students and postdoctoral fellows who have gone on to fill significant positions in the global ocean science community.


Two Important Science Contributions
• Observations –
• In the Ocean, real-time – in situ instruments
• Satellite – real-time --looking for depressions
• Internet – Data Distribution in real-time and reanalyzed with QA/QC
• Modeling –
• High resolution coupled models HWRF
• Data assimilation
• 7-day Medium-Range Forecasts of Cyclones