

IFEES Plays Role In Indo-US Collaboration for Engineering Education (IUCEE)

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Leaders of engineering education and engineering businesses from India and the US plan for collaboration

Leaders of engineering education and engineering businesses from US and India, along with several government dignitaries met at an Action Planning Forum for Indo US collaboration in engineering education, hosted by Kris Gopalakrishnan, Managing Director and CEO-Designate of Infosys at their Mysore Campus on June 3 to June 5, 2007. Infosys offered outstanding hospitality at their state-of-the art facilities of their Leadership Institute to the 81 participants who included several directors, deans of engineering, vice chancellors as well as over 25 business representatives. Prof. N. Balakrishnan, Associate Director, Indian Institute of Science and Dr. Frank Huband, Executive Director, American Society for Engineering Education, welcomed the participants on behalf of the organizers. Prof V.S. Arunachalam, Former Scientific Advisor to Defence Minister, Dr. T. Ramasami, Secretary, Department of Science and Technology and Dr. D. Acharya, Chairman of All India Council for Technical Education, gave keynote addresses.

The goal of the Forum was to develop an action plan for improving the quality and global relevance of engineering education in India and in the US. Of particular concern to the participants was the lack of interest in science and engineering in the US, the inadequate preparation of engineering graduates in India, the shortage of students pursuing Ph.D. programs in engineering in India and the need to encourage and support women and underrepresented minorities in engineering careers in both countries. The participants discussed several successful and promising models of collaborations which have potential for scaling up. This was the first of two forums organized by the American Society for Engineering Education (ASEE) and the newly formed Indo US Collaboration for Engineering Education (IUCEE). The preliminary recommendations from the Mysore Forum will be developed further at the second Forum to be held at the National Academy of Engineering in Washington DC on August 29 to 31, 2007.

One of the key outcomes of these action planning forums could be the establishment of an Indo US Engineering Faculty Institute with four thrust areas: curriculum and delivery, quality and accreditation, research and development, and innovation and entrepreneurship. Cross cutting themes for these thrust areas are industry needs and global relevance. This Institute would help improve the preparedness of the large number of faculty in engineering colleges in India and in the US to address the needs of the global economy. Another outcome could be the development of an Indo US Engineering Student Network for facilitating student internships and interactions as well as providing students access to high quality learning materials. Expectations are that the Student Network will be linked to the Global Student Forum currently sponsored by ASEE and International Federation of Engineering Education Societies (IFEES).

The resulting sustainable collaborations are expected to lead to clear mutual benefits to India and to the US. Benefits to India include an increase in the number of qualified engineering faculty, access to better curricular experiences for students, better employability of engineering graduates with skills needed by industry, increase in the research activity and increase in the production of Ph.Ds. in engineering colleges. Benefits to US include opportunities for global experiences for faculty and students, collaborative research, development and entrepreneurship in emerging technologies of global relevance, as well as access for US universities and companies to more and better prepared engineering graduates.

Initial support for the planning was obtained from Infosys, Deshpande Foundation, Indo US Science and Technology Forum as well as the corporations Hewlett Packard, National Instruments, Dassault Systemes, Microsoft, Autodesk, Agilent Technologies and UGS. Faculty, administrators and alumni of Indian Institutes of Technology (IITs) played a major role in initiating the collaboration at the Pan IIT 2006 Conference held in Mumbai in December 2006. The US Embassy as well as the International Federation for Engineering Education Societies (IFEES) and the Indian Society for Technical Education (ISTE) were also important partners.

The US delegation led by Dr. James Melsa, President-Elect of American Society for Engineering Education, visited New Delhi after the Mysore Forum. They met with President Abdul Kalam as well as the US Ambassador David C. Mulford to brief them about the recommendations from the Mysore Forum and to seek their advice. A small team of the participants, led by Barbara Olds, Associate Vice President, Colorado School of Mines visited Punjab Engineering College in Chandigarh (alma mater of Kalpana Chawla, the Indian born astronaut who died in the Space Shuttle Columbia disaster), for the nomination a faculty member, Uma Bathra, as Member-at -Large for Society for Women Engineers.

For further information contact the convenors, Professor Krishna Vedula, Dean Emeritus, University of Massachusetts Lowell at Krishna_Vedula@uml.edu, Professor R. Natarajan, Chairman, Board of IT Education Standards at prof.rnatarajan@gmail.com, Professor N. Balakrishnan, Associate Director, Indian Institute of Science at balki@serc.iisc.ernet.in, and Hans J. Hoyer, Director for International Programs and Strategy of ASEE and Deputy Secretary General of IFEES h.hoyer@asee.org.