

DRAFT

Indo US Engineering Faculty Leadership Institute Summer 2008

May 26 to July 18, 2008
Infosys Global Education Center, Mysore

FACULTY DEVELOPMENT PROGRAMMES

Offered by
Indo US Collaboration for Engineering Education (IUCEE)

US Address
406 Engineering Building, University of Massachusetts, One University Ave, Lowell, MA 01854
India Address
..... IUSSTF, Delhi

Information Brochure

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Registration Details for Faculty of Engineering Colleges

Resource Persons
Distinguished faculty from renowned US universities
in association with expert professors from Indian engineering education system

sponsored by

Deshpande Foundation, USA and Infosys Foundation, India

in partnership with

American Society for Engineering Education (ASEE)
and Indian Society for Technical Education (ISTE).

VENUE: Infosys Mysore Center, Mysore, Karnataka State, India

Address for Correspondence:
Convenor, Academic Programmes, IUCEE
Indo US Engineering Faculty Institute
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1. INTRODUCTION

The Indo-US Collaboration for Engineering Education (IUCEE) is an organization created by leading engineering educators in the US and in India, with the goal of improving 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. The American Society for Engineering Education (ASEE) and the Indian Society for Technical Education are primary partners. The Action Plan, developed at two Forums, one in Mysore in June 2007 and the second in Washington DC in August 2007, recommended the creation of Regional Indo US Engineering Faculty Institutes with four thrust areas: Curriculum Development, Pedagogy and Delivery; Research and Development; Quality and Accreditation and Innovation and Entrepreneurship, with strong Industry partnership.

These Regional Indo-US Faculty Institutes will foster collaborative networks and exchanges through course offerings for engineering faculty. The resulting networks are expected to lead to mutual benefits to India and to the US, including global experiences for faculty and students, collaborative research, development and entrepreneurship in technologies of global relevance, as well as access for US and Indian universities and companies to more and better prepared engineering graduates.

An Indo US Engineering Faculty Leadership Institute is planned for the summer of 2008 in order to prepare engineering faculty who will lead the creation of these Regional Institutes. Scaling up of the program will be achieved by the "Facilitate the Trainer" approach. Experienced faculty from various regions will be selected to attend the Indo US Engineering Faculty Leadership Institute conducted by US and Indian faculty experts. One week workshops will be offered on specific subjects in close consultation with industry. These workshops will focus on effective methods for teaching the specific subjects and on providing links and access to resources for that purpose. The workshops will be designed to ensure the creation of sustainable communities of practice and collaboration among participants. The workshops will include strategies for mentoring of the selected faculty at their home institutions. They will be encouraged and facilitated to be trainers and will be assisted in offering one-week courses to groups of faculty from engineering colleges at workshops in their regions during the following year as part of their Regional Institutes. Assessment of the outcomes from these workshops will guide development of the program.

2. PROGRAMME DETAILS:

The following workshops are planned during summer 2008:

Tentative Schedule for "2008 Indo-US Engineering Faculty Leadership Institute" (*Some dates tentative; Location: Infosys Mysore Center)

	Topic	Lead Presenters, Affiliation	Dates
1	Effective Teaching; Cooperative Learning; Quality and Accreditation; Outcomes Assessment	Rich Felder and Rebecca Brent, Univ of N. Carolina; Ashok Saxena, University of Arkansas	May 26 to 31
2	Learning Factory, Effective Teaching; Building Industry Academia Partnerships	Jorge Velez-Arocho and Rosa Buxeda, Univ of Puerto Rico; Lueny Morell, Hewlett Packard	June 2 to 6
3	Education for Building Knowledge Economies	Bruno Laporte and Anuja Utz, World Bank Institute	June 9 to 13
4	Communication skills for Effective Teaching and Learning	Veena Kumar, Rutgers University	(Parallel
5	Product Life Management using CAD	Xavier Fouger, Dassault Systemes	Workshops)
6	Computer Engineering	Joseph Tront, Virginia Tech University	
7	Wireless Communications	P.R. Kumar, University of Illinois Urbana Champagne	
8	Algorithms, Tutored Video Instruction	Richard Anderson, University of Washington	June 30 to July 4
9	Signal Processing	Sidney Burrus, Rice University	(Parallel
10	VLSI Design	Andrew Mason, Michigan State University	Workshops)
11	Software Engineering	Leon Osterweil and Lori Clarke, Univ of Massachusetts	
12	Programming, Computer Architecture	Jack Davidson, University of Virginia	
13	Engineering Projects in Community Service	William Oakes, Purdue University	July 7 to 11
14	Project Management; Data Base; Security	Vijay Kanabar, Boston University	(Parallel
15	Power Engineering	Mani Venkata, University of Washington	Workshops)
16	Web Technologies	Ellis Horowitz, University of Southern California	July 14 to 18
17	Computer Networks	James Kurose, University of Massachusetts, Amherst	(Parallel
18	Project Based Learning, Sustainable Product Design	Alice Agogino, University of California, Berkeley	Workshops)
19	Hands-on Engineering using Labview	Dhanabal Solaikutty, National Instruments	

Each workshop is for one week (five days), For the content specific workshops (5 to 19), typically the first 3 or 4 days of the week will cover the curriculum, pedagogy and effective teaching of relevant courses and the rest of the time will be devoted to latest trends in research in that topic.

3. FINANCIAL SUPPORT

IUCEE acknowledges the support of their primary sponsors for the Implementation Plan: Jaishree and Desh Deshpande (Founder, Sycamore Networks, USA) and Sudha and Narayana Murthy (Co-Founder, Infosys Technologies). This support will cover the expenses for the resource persons from USA and India, development of course materials, arrangements for participants at the Infosys Mysore Center, as well as administrative expenses.

The regional follow up of the workshops at the Regional Indo US Engineering Faculty Institutes is expected to be supported by regional colleges, state government agencies, central government agencies and businesses.

4. LIMITATIONS ON NUMBER OF PARTICIPANTS AND FEES TO BE CHARGED

For each content specific workshop (# 5 to #19), a maximum of 30 participants will be selected from among faculty from all states in India. For the workshops during the first two weeks, which cover general teaching and learning concepts (#1 and #2), a maximum of 100 participants each will be selected. Workshops # 3 (designed primarily for policy makers) and # 4 will also be limited to 30 participants. Participants will be charged fees of Rs. 2,500 for each one week workshop in order to cover some minimum costs and to ensure seriousness of the participants.

5. QUALIFICATIONS AND EXPERIENCE OF PARTICIPANTS

Only faculty holding Master's degrees will be considered for selection as participants in the above summer workshops. The faculty should have at least one years experience in teaching. **Participants must enroll for one of the effective teaching workshops (1,2 or 4) as well as at least one of the content specific workshops (5 to 19).** The workshop on "Education for Building Knowledge Economies" is primarily designed for senior leaders and policy makers in engineering education.

6. SELECTION AND CERTIFICATION OF TRAINERS FOR REGIONAL INSTITUTES

Since a vital part of the IUCEE Action Plan is to create Regional Indo US Engineering Faculty Institutes, several of participants from each of the above workshops will be selected and certified as Trainers for the Regional Institutes. These Trainers will be coached and certified to offer similar workshops in their regions later. Selection of Trainers will be based on qualifications, experience as well as performance in the summer workshops. Selected and certified Trainers will be provided a Fellowship and opportunities for further professional development including guidance to Ph.D. programs, where appropriate.

7. COMMITMENTS FROM PARTICIPANTS

Participating faculty are expected to prepare for the workshops before hand using materials to be provided. All participating faculty will be expected to complete projects based on the workshop/s attended and assess outcomes in the relevant courses they teach during the following semester. A report on the outcomes will be expected by IUCEE. Participants selected to be Trainers will be expected to offer at least one workshop in their own region (in the following Fall semester or the Spring semester), assess the outcomes of these workshops and submit a report to IUCEE.

8. COMMITMENTS FROM INSTITUTIONS

Institutions to which the faculty participants belong, will be required to commit to encouraging and supporting participating faculty in fulfilling their commitments as described above. In particular, for institutions from which Trainers are selected, the Institutions are expected to provide facilities and support for conducting regional workshops.

9. BENEFITS OF PARTICIPATION

Participating institutions and faculty will benefit by becoming identified as leaders of high quality engineering education. Industry partners of IUCEE and leading US universities and Indian universities will give priority for student recruitment from and collaborations with institutions participating in IUCEE programmes and demonstrating leadership in conducting regional workshops.

10. ADDRESS FOR CORRESPONDENCE AND SELECTION PROCESS

The Academic Review Committee will review the applications, shortlist the participants. They will recommend the names of shortlisted faculty to IUCEE for necessary final decision and to give further information to participants.

8. Organization of IUCEE

Partners

All India Council for Technical Education (AICTE)
Indo US Science and Technology Forum (IUSSTF)
Global Pan IIT
Indian Society for Technical Education (ISTE)
Infosys Campus Connect
Connexions at Rice University
Indo-US Collaboration using EDUSAT
National Academy of Engineering (NAE)
Industry organizations: CII, FICCI, NASSCOM

Department of Science and Technology (DST)
International Federation of Engineering Education Societies (IFEES)
Technical Education Quality Improvement Program (TEQIP),
Accreditation Board for Engineering and Technology (ABET)
MIT Open Course Ware (OCW)
National Program for Technology Enhanced Learning (NPTEL)
National Science Foundation (NSF)
Indian National Academy of Engineering (INAE)
Other industries

Governance and Leadership

Patrons and Honorary Co-Chairs
Desh Deshpande; Jaishree Deshpande;
Narayana Murthy; Sudha Murthy;

Executive Director: Krishna Vedula, University of Massachusetts
Associate Director (India): To be selected
Executive Advisor: Hans Hoyer, Director International Programs ASEE

Executive Committee

Frank Huband, Executive Director, ASEE
Satish Udpa, Dean, Michigan State University
Ashok Saxena, Dean, University of Arkansas
Gretchen Kalonji, Internl Programs, Univ of CA
Lueny Morell, University Relations, HP
James Melsa, President, ASEE (ex officio)
Satish Kulkarni, US Embassy in India
Michael Cheetham, Director, ISTP

R. Natarajan, Former Chairman, AICTE
N. Balakrishnan, Associate Director, Indian Institute of Science
AICTE Chairman (to be appointed)
Sanjay Dhande, Director, IIT Kanpur
M. P. Ravindra, Advisor, Infosys Technologies
N. R. Shetty, President, ISTE (ex officio)
Arabinda Mitra, Executive Director, IUSSTF
P. Narasimha Reddy, Director, Sri Nidhi Institute of Technology

Advisors

Paul Peercy Dean, University of Wisconsin
Barbara Olds, Assoc VP, Colorado School of Mines
Jack Lohmann, Vice Provost, Georgia Inst of Tech
Bruno Laporte, World Bank Institute
Vijay Kumar, Sr. Associate Dean, MIT
S. S. Venkata, University of Washington
Raghu Raghavendra, Assoc Dean, USC
Teri Reed-Rhoads, Assoc Dean, Purdue Univ
Xavier Fouger, Dassault Systemes
Ravi Marawar, National Instruments
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Autodesk
Siemens

APPLICATION FORM

Course Name

Name of Teacher

Date of Birth

Qualifications and Experience

University

Designation

Address of College for Correspondence

Undertaking of Teacher

Undertaking of Institution