GC 2012-5659: ISTE ACTIVITIES FOR PROMOTING INTERNATIONAL COLLABORATION IN ENGINEERING EDUCATION

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ISTE Activities for Promoting International Collaboration in Engineering Education

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INTRODUCTION

- Higher education makes a vital contribution to sustainable development through the generation and dissemination of knowledge.

- The effective management of this domain merits top priority at a time when Universities face critical challenges due to unprecedented expansion in demand.

- Education, at all levels, will continue to grow, because it cultivates the human mind and makes people important and useful in the all-round development of a country.
ABOUT ISTE

- Indian Society for Technical Education is a National, Professional, Non-profit making Society registered under the Societies Registration Act of 1860

- The First Meeting of the Association of Principals of Technical Institutions (APTI) in India was held at Delhi on 28th July 1941

- The Meeting of APTI held at the University of Mysore, Mysore on 27th May 1968 a decision was made to Register Society under the name "Indian Society for Technical Education" (ISTE)
OBJECTIVES

- The Major objectives of the ISTE to help the students in Personality Development, Faculty members in Career Development so as to produce high quality professionals at National & International Level
- Cultivate fraternal spirit amongst the Teachers, Administrators, Industrialists & Professionals
- Bring about effective linkage between technical institutions industry & society
- Improve instructional methods, practices & administrative usages
ORGANIZATIONAL STRUCTURE

- Executive Council at National Level
- State Level Sections (Province)
- Institute Level Sections (Faculty & Students Chapter)
- 82000 Professional Members
- 520 thousand Student Members
- 2100 Institutional Members
- 1036 Faculty Chapters
- 1145 Students Chapters
ACTIVITIES

- Curriculum Development & Updating
- STTPs for Engineering Teachers and Engineers
- Entrepreneurship Awareness Camps
- Publication of ISTE Newsletter, Indian Journal of Technical Education etc
- Organization of Conferences and Seminars at State & National Level
- Continuing Education for Working Professionals
- Other Projects like Learning Materials Project, and Working Professional Learning Project
SOME CURRENT ISTE PRIORITIES

- Accreditation and Quality Assurance
- Skills Development
- Faculty Development
- Leadership Development
- Outcomes-based Engineering Education
- Technology-Enhanced Engineering Education
- Collaboration with Foreign Universities
STUDENT DEVELOPMENT

- Students are the life line of any institution.
- Student Platform for Engineering Education Development (SPEED) is a global organization empowering students to positively impact engineering education.
- SPEED is committed to improving the future of engineering education whilst embracing the considerable engineering challenges being faced in the 21st century.
- Students gain domain knowledge from peer institutions abroad and through networking.
STUDENT DEVELOPMENT

ISTE has conducted the following Student Leadership Programs in India with the help of SPEED:

- 2008 – KIIT University, Bhubaneswar
- 2009 – National Institute of Technology, Surathkal
- 2010 – Bannari Amman Engineering College, Bannari
- 2010 – Mepco Engineering College, Sivakasi
- 2010 – Mahendra Engineering College, Salem
- 2011 – Rayat Engineering College, Punjab
- 2011 – Baba Banda Singh Bahadur College of Engineering, Fategarh Sahib
- 2011 – Kongu Engineering College, Perundurai
STUDENT DEVELOPMENT

- ISTE sponsors three best students from India every year to participate in the ASEE Global Students Forum (GSF).
- Students from India, sponsored by ISTE have participated in ASEE- GSF program in the following countries.
  - Cape Town, South Africa
  - Lisbon, Portugal
  - Singapore
ISTE will explore possibilities to strengthen this activity through corporate sponsorships to mainly attain the following:

- Dissemination of Engineering Education
- Growth and Future of Student Involvement
- Sharing of best practices among students
Faculty development initiatives provide important opportunities for teachers to develop confidence in their approach to teaching in higher education.

Accountability is the buzz word for improving the quality of teaching and learning in higher education and invites increased attention from all stakeholders.

Providing additional opportunities to train engineering faculty for one of their most important roles in higher education i.e., ‘teaching’ is of primary importance.
FACULTY DEVELOPMENT

- ISTE has been conducting ‘Short Term Training Programs’ (STTPs) since 1968 with the support of MHRD, Government of India.

- A large number of engineering faculty members are benefited through ISTE STTPs in India.

- ISTE joined Indo US Collaboration for Engineering Education (IUCCEE) and conducted Faculty Leadership Institutes (FLI), a one week workshops in content, pedagogy, leadership and tools.
  - 23 FLI - Workshops in 2008
  - 23 FLI - Workshops in 2009
  - 37 FLI - Workshops in 2010
ISTE Faculty Development Programs will be designed to inculcate understanding of international and interdisciplinary engineering education by equipping faculty with the pedagogical tools, knowledge, and experiences to incorporate international content into existing courses or develop new courses.
INTERNATIONAL COLLABORATION

- International collaboration serves as a means to discuss common challenges and new approaches to deal with them, and to share examples of good practices with the global engineering education community.

- As engineering becomes more global, collaborations in engineering education research are increasingly important, especially to
  - promote continued innovation in engineering education and
  - ensure the employability and mobility of engineering graduates.
INTERNATIONAL COLLABORATION

- Engineering education research results will be translated for the design of future interventions such as workshops and seminars.
- ISTE will work towards the establishment of an alliance with leading technological universities in the world that would include an interchange of faculty, students and curricula to do research and offer post-graduate degree programs.
INTERNATIONAL COLLABORATION

- ISTE would like to organize a series of workshops and Seminars aimed at improving the understanding of causes and possible solutions to specific issues in engineering education such as
  - Student development
  - Faculty development,
  - Research
  - Curriculum development etc.
INTERNATIONAL COLLABORATION

- ISTE would like to join hands with International organizations and take up a project to
  - study the factors affecting the impact of professional development programs on teachers' knowledge, practice and student outcomes.
- ISTE would like to conduct joint research programs in engineering education.
INTERNATIONAL COLLABORATION

- ISTE would like to act as a facilitator for the faculty and student exchange programs between Institutions from different countries.

- ISTE would facilitate partnerships between Indian and other foreign Institutions in the field of Technical Education, Research and Training.
CONCLUSION

- The increasing awareness of people and other factors like globalization and increased competition have made quality in education all the more important.

- Technical education in India is facing certain problems in its quality, and the general observation is that the quantitative expansion of technical education has resulted into lowering of standards.
CONCLUSION

- India has to gear up and make dedicated efforts to enhance the standard of technical education in the country comparable to institutions of international reputation.

- ISTE will help all the stake holders in improving quality of engineering education in the country.
THANK YOU

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