



ENGINEERING COUNCIL OF INDIA



7th National Convention

Industry - Specific Engineering Education for Better Employability of Engineers - Contours of Reform

January 28, 2012

ITM Universe Campus, Dhanora Tank Road, Village Paldi,
Halol Highway, Taluka Waghodia, Vadodara, Gujarat - 391510

Jointly organized by
Engineering Council of India
&
ITM Universe, Vadodara

Sponsored by
Reliance Industries Limited
Vadodara Manufacturing Division

Supported by
Member Associations of Engineering Council of India

INTRODUCTION

Higher technical education, particularly engineering education has always occupied a place of prominence in our economic development. According to the XIth Plan Working Group of the Planning Commission on Technical Education, the key challenging issues include inter alia: assuring quality of technical education, ensuring its relevance to global, local market and industry needs and improving employability. The McKinsey Global Institute on the emerging global labour market, according to a study that it has conducted, has stated that though India produces a large number of engineering graduates every year, multinationals find that just 25 per cent of them are employable. Our technical education, particularly engineering education, therefore, is not relevant to the present needs of the Indian industry. We need industry-specific engineering education for making engineers employable.

The Engineering Council of India for in-depth discussions took up this issue. It organized 6 national conventions in the country starting with the 1st national convention which was held in August, 2006 at Kolkata. This was followed by the 2nd national convention in May, 2007 at Baroda, 3rd national convention in February, 2008 at Hyderabad, 4th national convention in July 2009 at Vishakhapatnam and the 5th national convention in September, 2009 at New Delhi, which was sponsored by the Planning Commission. A national workshop was also organized in March 2009 at Madurai and the 6th national conference organized at New Delhi in November 2009 were on the same theme. Concerns about the technical education system, particularly engineering education were widely shared by the delegates from both the industry and academia at these conventions. An almost unanimous view emerged from these in-depth deliberations that the engineering education needs a systematic overhaul, so that India can produce world-class engineers having multi-skills, apart from sound knowledge of engineering sciences. We need industry/sector-specific engineering education. Besides, the country is able to educate much larger numbers without diluting academic standards. Indeed, this is essential because the transformation of our economy and society in the 21st century would depend, in significant part, inter alia, on the spread and the quality of technical education, particularly engineering education among our people. It is generally felt that the present regulatory system of higher technical education, particularly engineering education is flawed in some important respects. The barriers to entry are too high. The system of authorizing entry is cumbersome. The system, as a whole, is over-regulated but under-governed. The system of affiliated colleges for undergraduate education, which may have been appropriate 50 years ago, is no longer adequate or appropriate, needs restructuring, and reformed. India is not an attractive destination of higher technical

education, particularly engineering education for international students. It is time for us to make a conscious attempt to create appropriate policy framework for attract foreign students to India for higher technical education, particularly the engineering education. This would enrich our academic milieu and enhance quality. It would also be a significant source of finance.

The supply constraint of higher technical education is an impediment today. It must ease for the better quality higher technical education, particularly engineering education. When students have relatively few choices, institutions have greater power over them. An expansion of higher technical education that provides students with choices and creates competition between institutions is going to be vital in enhancing inter alia accountability. Such competition between institutions within India is, of course, essential. However, the significance of competition from outside India must not be underestimated. For this purpose, we need appropriate policy for the entry of foreign institutions into India and the promotion of Indian institutions abroad. Such policies must ensure that there is an incentive for good institutions and a disincentive for sub-standard institutions to come to India.

OBJECTIVE

Objective of the 7th National Convention is to consider in-depth various aspects of the reform of engineering education and try to get a consensus on the contours of change. Specifically, it will consider whether we need to move out from the present engineering domain-specific engineering education to multidisciplinary engineering education. It will also consider aspects such as, the multidisciplinary engineering curricula and its new possible branches that will meet the needs of the industry. The convention will also look at duration of the course, industry training, after the course mandatory internship with the industry, treatment to the diploma stream in the reform process, and modalities of bringing in the engineer technicians in the process of formal engineering education. Besides, it will also look at creating an effective and efficient interactive mechanism between the industry and academia for keeping engineering education system and process dynamic so that it meets ever-changing demands of the market from time-to time, etc.

PARTICIPATION

The convention would be most beneficial to engineers from industry including central and state public sector enterprises, private enterprises, ports, consultancy organizations, engineers from defense services, senior level engineers / officers of central, state governments and engineers from government organizations involved in policy making and implementation of national development programmes, etc.

TENTATIVE PROGRAMME

Time	Sessions	Subject
0900 - 1000 Hrs	Registration	
1000 - 1100 Hrs	Opening Session	Welcome Address Theme address Vote of Thanks
1100 - 1130 Hrs	Coffee / Tea	
1130 - 1300 Hrs	Technical Session-I	Industry-specific Engineering Education for Better Employability of Engineers - Contours of Change, Views from the Industry and Academia
1300 - 1400 Hrs	Lunch	
1400 - 1530 Hr	Technical Session II	Multidisciplinary Engineering Education -A Possible Way Forward, Views from the Industry and Academia
1530 - 1600 Hrs	Coffee / Tea	Address by the Panelist
1600 - 1700 Hrs	High-level Panel Discussions and Recommendations	

VENUE

ITM Universe Campus, Dhanora Tank Road, Village Paldi, Halol Highway, Taluka Waghodia, Vadodara, Gujarat Vadodara is a thinkers' paradise. The ITM campus is inspiring to the extent of making you feel yourself a thinker par excellence. In January, the climate of vadodra will be very cool and, therefore, woollens will be required. The venue is very well connected to Vadodara, which is in turn very well connected via Rail, Road and Air with the major metros and cities. The arrangements will be made for transferring participants from both the Railway Station and Airport as well as from the different locations of Vadodara City.

REGISTRATION

No Registration fee is required and all those engineers who are interested in the subject are invited to the convention. Engineers/Technologists, who are interested to attend, may please send their nomination

giving their full particulars (Name, Organization, Designation, Address, Phone No, Cell No, Fax No, E-mail address, etc) latest by January 20, 2012 on the following address. Last minute / spot Registration is not permitted:

Deepak Singhal
Officer - Administration & Systems

Engineering Council of India
39, Jawahar Dhatu Bhawan,
Tuglakabad Institutional Area
(Near Bhtra Hospital), M.B. Road,
New Delhi-110062

Phone : 011-29963281, 29963282, 65640356
Cell : 09810708510, 09868339954, 09873762243
Fax : 11-29963283
Email : eci@ecindia.org, ecindia@vsnl.net,
pnshali@gmail.com, director@ecindia.org

ITM UNIVERSE VADODARA

ITM Universe Group was established by Samata Lok Sansthan Trust which has now established ITM University in Gwalior, MP State under section 2(f) of UGC Act and notified in MP gazette. ITM Universe,

Vadodara was established in June 2011 with a mission to develop students in all aspects by imparting quality education and a vision to develop a World Class University in Gujarat. ITM Universe, Vadodara is located around 25 Kms. from Vadodara City on Halol Highway and approximately 2 Kms. from Jarod Town.

Presently, this Institute of Technology and Management Universe is offering B.E. and Management (MBA) Courses recognized by the AICTE and affiliated by Gujarat Technological University. The institute is likely to include Architecture, Applied Art-Craft, MCA, Polytechnic, Nursing institutions during the academic year 2012-13 as a part of Multi-discipline Campus with nearly 50 acres of land. The campus in-houses some of the monumental sculptures and renowned works and painting of artists of national and international repute. Apart from being an eco-friendly campus an area of 20 bighas of sapodillas and mango orchids adds to the beauty of the campus.

ENGINEERING COUNCIL OF INDIA

ECI was established on April 4, 2002, by coming together of a large number of Professional Organizations /Institutions of engineers, to work for the advancement of engineering profession in various disciplines, for enhancing the image of engineers in society, by focusing on quality and accountability of engineers and to enable the recognition of expertise of Indian engineers and their mobility at international level in the emerging WTO/GATS environment. It has emerged as a common voice of its member organizations.

OBJECTIVES

The main objectives of ECI are to work for the advancement of engineering profession in various disciplines and for enhancing the image of engineers in the society. To this end, ECI is focusing on quality and accountability of engineers, professionalization and their mobility for delivering engineering services in other countries, with expertise of Indian engineers developed, recognized and accepted at the international level.

TASKS

- Representing Member Associations in government and non-government bodies, and interacting on common policy matters relating to engineering profession.
- Working for the setting up of a Statutory Council of Engineers and later interfacing with it, providing support and inputs for developing systems and procedures for the registration of engineers, CPD, code of ethics.
- Facilitating authorization of member associations to register engineers; assisting them in developing internal systems for undertaking registration, CPD, enforcing code of ethics; and providing common forum for CPD to support the member associations.
- Assisting member associations in interaction with academic institutions and regulatory bodies in regard to their examinations, award of degrees etc.
- Providing forum for exchange of information and experience among member associations, coordination, common thinking and views on important matters.
- Helping in the analysis of existing education systems/bodies and making suggestions in order to make the education relevant for the engineering profession and employability.
- Setting up a Resource Centre and Database of Engineers, which can provide necessary information required for the development of the profession.

- Interacting with professional associations/bodies in other countries & international bodies.
- Undertaking and supporting research for the development of the engineering profession.

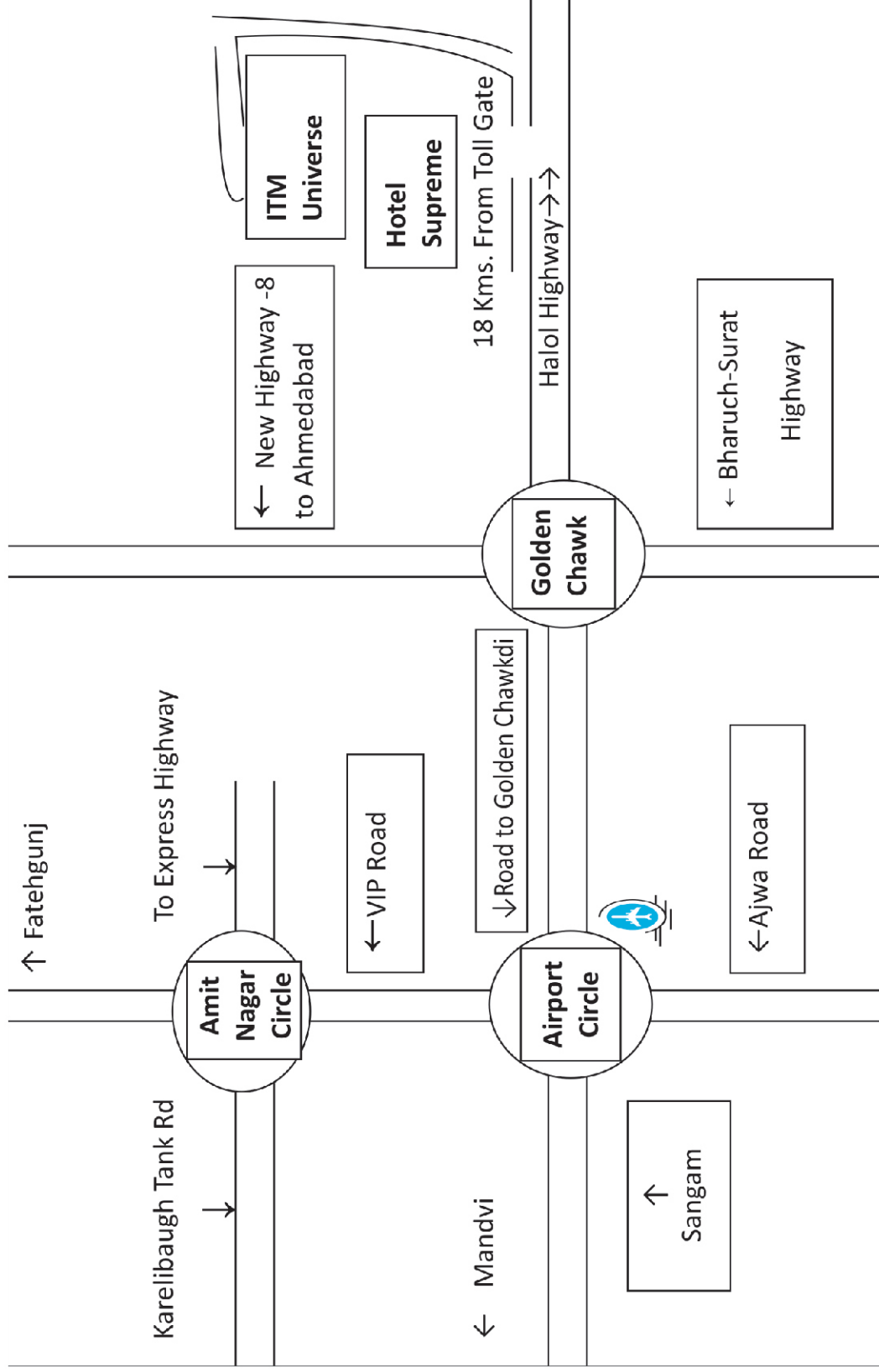
ENGINEERS' BILL

ECI has facilitated formulation of a conscious draft Engineers' Bill for the consideration of the Govt. of India. Which lays down the criteria for the process of registration of Practicing Engineers and provide necessary statutory framework for the same. The draft is being processed by the Ministry of Human Resource Development.

MEMBERS

1. Association of Consulting Civil Engineers (India)
2. Broadcast Engineering Society (India)
3. Computer Society of India
4. Construction Industry Development Council
5. Consultancy Development Centre
6. Consulting Engineers Association of India
7. Indian Association of Structural Engineers
8. Indian Buildings Congress
9. Indian Concrete Institute
10. Indian Geotechnical Society
11. Indian Institute of Chemical Engineers
12. Indian Institution of Bridge Engineers
13. Indian Institution of Industrial Engineering
14. Indian Institution of Plant Engineers
15. Indian National Group of IABSE
16. Indian Society for Non Destructive Testing
17. Indian Society for Technical Education
18. Indian Society for Trenchless Technology
19. Indian Society of Agricultural Engineers
20. Institute of Urban Transport (India)
21. Institution of Mechanical Engineers (India)
22. International Council of Consultants
23. The Aeronautical Society of India
24. The Automobile Society of India
25. The Indian Institute of Metals
26. The Institute of Electrical and Electronics Engineers. Inc.
27. The Institute of Marine Engineers (India)
28. The Institution of Civil Engineers (India)
29. The Institution of Electronics and Telecommunication Engineers
30. The Institution of Surveyors

Roadmap to ITM UNIVERSE, Vadodara





Engineering Council of India

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REGISTRATION FORM

I / We would like to participate in the Programme

Name of Organisation _____

Address _____

Tel. No. _____ Fax No. _____ Email _____

S.No.	Name of Participants	Designation
1.
2.
3.
4.

Please Complete the Registration Form in capital letters (preferable type written), and send it on the following address.

You are requested to send the form to :

Deepak Singhal

Officer-Administration & Systems

Engineering Council of India

3rd Floor, Jawahar Dhatu Bhawan, 39, Tughlakabad Institutional Area
(Near Batra Hospital), M. B. Road, New Delhi-110062

Phone : 011-29963281, 29963282, 65640356 Fax : 011-29963283

Email : eci@ecindia.org, ecindia@vsnl.net **Website : www.ecindia.org**



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