

ABOUT THE CONFERENCE

Nirma University International Conference on Engineering (NUICONE) is a flagship event of the Institute of Technology, Nirma University. This conference follows successful organization of four national conferences and three international conferences in previous years. NUICONE-2013 is being organized in cooperation with two legendary avenues of research publications like IEEE and Science-Direct. In true sense, NUICONE-2013 is a multidisciplinary event encompassing themes related to various disciplines of Engineering & Technology, such as, Computer, Information Technology, Civil, Chemical, Instrumentation & Control, Mechanical and Electrical and Electronics & Communication. This time we have added a track related to recent trends in mathematics and humanities in engineering. The objective of the conference is to bring professional Engineers, academicians and research scholars of matching interests on a common platform to share new ideas, experiences, and knowledge in various fields of Engineering and Technology. The technical program will consist of peer-reviewed paper presentations in parallel technical sessions. In addition, keynote lectures, presentations by industry professionals, panel discussions, tutorials and poster presentations will be conducted during the conference. Such interactions will facilitate better understanding about technological developments all across the globe amongst the peers. This conference will certainly ignite the minds of the researchers for undertaking more interdisciplinary collaborative research for up gradation of technology.

Following are the tracks for the conference:

- Chemical Engineering
- Civil Engineering
- Computer Science & Engineering
- Electrical Engineering
- Electronics & Communication Engineering
- Instrumentation & Control Engineering
- Mechanical Engineering
- Recent trends in Mathematics and Humanities in Engineering

ABOUT THE DEPARTMENT OF MATHEMATICS AND HUMANITIES

Mathematics is the language of engineering. It caters to all disciplines of engineering.. In the undergraduate courses, mostly post calculus topics are covered whereas discrete mathematics and mathematical logic are offered to the stream of computer science. Computer Engineering, Information Technology and Master's Programme.

Department offers Communication Skills and English Language oriented courses in the form of regular, Institute Electives, audit and supplementary courses to the students at various levels of UG and PG programmers of B. Tech and also in MCA .Engineering Economics and Business Management (EEBM) is an important subject offered by the Department of Humanities. The Faculty members are proactive and diligent in the imparting learnings to the students. Constant updating of skills of faculty members through various conferences, workshops, and seminars are encouraged.

ABOUT AHMEDABAD

Ahmedabad, one of the liveliest cities in India and one of the major industrial centers in India, had often been called the 'Manchester of the East'. Ahmedabad is the largest city in Gujarat with a population of about 5 million. The city has developed itself into a leading industrial centre and has become economic capital of Gujarat. Ahmedabad offers something to celebrate all year round that ranges from celebrations of 'Deepawali', 'Navratri' and 'Kite Festival'. The city has many places to visit, like Science City, Akshardham Temple, Gandhi Ashram, Adalaj Vav (step well) etc. The weather of Ahmedabad is very pleasant during the month of November with temperature around 22-25°C.

NIRMA UNIVERSITY



Nirma University, Ahmedabad was established in the year 2003 as a statutory university under the Gujarat State Act at the initiative of the Nirma Education & Research Foundation. In 1994, the founder of Nirma Industries and an internationally famous entrepreneur Dr. Karsanbhai K. Patel crystallized his long cherished dream of providing world class facilities for professional education in Gujarat. He established Nirma Education and Research Foundation (NERF) which in turn established, on a 110 acre campus, six leading institutions within a span of twelve years; Institute of Technology in 1995, Institute of Management in 1996, Institute of Diploma studies in 1997, Institute of Pharmacy in 2003, Institute of Science in 2005 and Institute of Law in 2007. From 2003 all the institutes are constituents of Nirma University. Nirma University consists of Faculty of Engineering and Technology, Faculty of Management, Faculty of Science, Faculty of Pharmacy, Faculty of Law, and Faculty of Doctoral Studies & Research. The graduate, post-graduate and doctoral level programmes offered by these faculties are rated high by accreditation agencies, industries, business magazines and also by the students. Innovation, excellence and quality are the driving forces on the campus and this has translated the vision of these institutions into a reality over a short period of time. Today the campus is vibrant with not only world class curricular activities but also with myriad activities like international conventions, symposia, conferences, student competitions, conclaves, short-term industry relevant programmes, cultural activities, etc.

INSTITUTE OF TECHNOLOGY

The Institute of Technology offers four-year B. Tech. Programmes in Chemical, Civil, Computer, Electrical, Electronics & Communication, Instrumentation & Control, Information Technology and Mechanical Engineering. It also offers MCA and M. Tech. Programmes in various engineering disciplines with specialization as under. About 86 students have registered for Ph.D. in different disciplines.

- Environmental Process Design
- Control and Automation
- Chemical Process and Plant Design
- Computer Science & Engineering
- Networking Technologies
- Information and Network Security
- Power Electronics, Machines & Drives
- Electrical Power Systems
- Computer Aided Structural Analysis & Design
- Energy System
- VLSI Design
- Communication Engineering
- Embedded Systems
- CAD / CAM
- Thermal Engineering
- Design Engineering
- Computer Integrated Manufacturing

It is located in peaceful and sylvan surroundings, about 15 km from Ahmedabad railway station, on Sarkhej Gandhinagar highway. The academic ambience provides full scope for development. Journal of Current Science 2009 has rated the institute amongst top 50 in the country for research performance for last 10 years. The presence of the institute can also be felt by its alumni spread in national and multinational organizations as well as leading Universities throughout the world. Students are encouraged to participate in national and international competitions and have won many prizes/awards. Students also won National Robocon Competition five times and represented India at international level. Institute has received high ranking by various surveys. The placement of graduates has been excellent.



Address for correspondence:
Conference Chair, NUICONE-13,
Institute of Technology, Nirma University,
Sarkhej-Gandhinagar Highway, Ahmedabad- 382 481, Gujarat, India
Ph: +91-2717-241911-15 Fax: +91-2717-241917
Website: <http://www.nuicone.org>
Email: nuicone@nirmauni.ac.in

NUICONE 2013

4th Nirma University International Conference on Engineering

November 28-30, 2013

Track: Recent trends in Mathematics and
Humanities in Engineering



Organized by
Department of Mathematics
and Humanities
Institute of Technology, Nirma University

In Association with



IEEE
Gujarat Section



Institution of
Engineers (India)

PREAMBLE

Mathematics: The endeavor to mathematize almost all real world problems through mathematical modeling at the content and the instructional programme of Mathematics course for scientist, engineers, technologist and other users should not be in isolation from their applications but should be enriched with application orientation. The present conference is motivated from this conviction. The conference aims at providing opportunity for the practitioners, scientists, engineers and academicians to deliberate, present and discuss on issues pertaining to their field. It will focus on Mathematics as a powerful tool in the process of emergence of new theories, models, systems and technologies. The conference will generate the awareness about the potential and the limitations of new techniques in mathematics.

Authors are invited to submit the papers on following topics:

- Graph Theory
- Modeling and Simulation
- Bio-informatics
- Bio-mathematics
- Statistical Computation/Optimization
- Fuzzy logic

Empowering English Classrooms in Engineering Education: Communication skills and under its purview English Language has emerged as the skill that is needed to enhance employability of the students. In class rooms it poses many challenges to the language teacher. The diversity of the students' socio-cultural background, motivation and interest, multiple intelligences and learning styles, differing personalities and behavior patterns, makes the language teaching task a particularly challenging task. Engineering education being so dynamic demands the exploration of new teaching-learning methodology. Need is to make the language teaching more assertive keeping in view the wider sociocultural context in which the instruction takes place.

This conference aims to focus on the emerging trends and methodologies in English language teaching which can empower the language class room and enable the learner to use English adeptly and effectively.

Authors are invited to submit the papers on following topics relevant to teaching of English Language in Engineering classrooms but are not limited to:

- The use of the internet and multimedia in language teaching
- Modern pedagogical approaches and methodologies
- Vocabulary development
- Using literature for language teaching
- Intercultural communication
- Soft skills and personality development
- Curriculum and syllabus design
- Testing and evaluation
- Changing paradigms in teaching communication Skills
- Interdisciplinary approaches in English language programmes
- Challenges in the present-day language classroom

Economics for Engineers: Today industry need not just managers but techno-managers who are capable of understanding the economic scenario and applying the economic efficiency, optimisation principles etc. on project appraisals and project implementations. Keeping in view of

the need of the industry the Institute imparts Engineering Economics and Business Management apart from offering Institute elective subjects such as Entrepreneurship Development, Elements of Marketing Management, and Human Resource Management etc.

The authors are invited to submit research papers on the following broad areas.

- Engineering Economics
- Inclusive Economic Growth

Within the above board areas papers can cover areas like economic efficiency, optimisation principles, economic equivalence, cost benefit analysis, investment evaluation methods – capital budgeting, equipment replacement, production engineering, economies of scope, regional inequality, financial inclusion, governance, poverty and employment studies, econometric models on measuring inclusive economic growth, sustainable development and so on.

CALL FOR PAPERS

- Researchers, Academicians and Professionals interested to present papers at the technical sessions of NUiCONE-2013 are invited to submit a full length paper(s) not exceeding six A4 size pages.
- The format of the paper is available on conference website: <http://www.nuicone.org>.
- The paper must include an abstract of about 250 words and maximum of five keywords related to the topic of the paper.
- Soft copies of the papers in specified format should be uploaded on the conference website
- For the final selection, all the papers will be reviewed and scrutinized by a Technical Committee comprising of subject experts.
- Information about necessary revisions will be communicated to the corresponding author through e-mail. The author(s) will have to strictly incorporate the suggestions and will have to send the revised camera ready copy of the paper in the given time limit.
- Authors of the accepted papers will be informed by e-mail
- Along with the paper, authors are required to submit an undertaking form which implies that, the paper has not been published previously, is not under consideration for publication elsewhere, and if accepted it will not be published elsewhere in the same form
- A poster session may also be organized. Guidelines for posters will be available on conference website. The papers selected for poster presentation will be included only in conference proceeding of NUiCONE-2013.
- For the author presenting more than one paper, it is mandatory to register and present each paper separately.
- The paper accepted for oral presentation from Computer Science & Engineering, Electrical, Electronics & Communication, Instrumentation & Control Engineering and Recent trends in Mathematics & Humanities in engineering tracks will be recommended to IEEE Conference Publication Program (CPP) to include it on the IEEEExplore website provided all of the following conditions are fulfilled:
 1. It strictly complies with IEEE conference paper formatting guidelines.
 2. The paper is presented in the conference by at least one of the duly registered authors.
 3. The duly filled and signed copy-right transfer form is submitted along with the paper.
- Pre-conference tutorial is scheduled on 27/11/2013. Details will be available on the website.
- Due date for receipt of full paper : 14/08/2013
- Intimation of Acceptance : 02/09/2013
- Due date for sending camera ready copy : 16/09/2013

DELEGATE FEE

- Indian Delegate ₹ 5000/-
- Indian Student (non-sponsored) ₹ 2000/-
- Foreign Delegate US\$ 300
- The delegate fee includes day time hospitality during conference days, proceedings, and kit for the registered delegates
- The registration form should be supported by a bonafide certificate for Students (non-sponsored)
- The payment of registration fees is online. The instructions for online payment is mentioned on the conference website.
- All authors should send the duly filled registration form along with bonafied certificate (if applicable) and signed copy right form.
- For foreign delegates, the account details for transferring registration fee is available on conference website.
- Non-author delegates are also welcome to register for the conference

For any further details, please send your email to nuicone@nirmauni.ac.in

ORGANIZING COMMITTEE

Shri Ambubhai M Patel, Vice President, Nirma University

- Chief Patron** : Dr Anup K Singh, Director General, Nirma University
Patron : Dr K Kotecha, Director, IT, NU
Conference Chair : Dr D M Adhyaru
Conference Co-Chairs : Dr Madhuri Bhavsar
Dr Suman Mitra, Chairman, IEEE Gujarat Section

Members:

- Shri K K Patel (COO)
- Shri D P Chhaya (Director-GAA)
- Dr A S Patel (I/C, ER)
- Dr. Sanjay Garg
- Dr R N Patel
- Dr S S Patel
- Dr P H Shah
- Dr J P Sharma
- Dr P N Tekwani

Advisory Committee

- Padmabhusan Dr. Sudheer Gambhir, Emeritus University of Pennsylvania, USA
- Dr. D B Gurung, Kathmandu University, Kathmandu, Nepal
- Prof. Pashupathi Jha, IIT Roorkee.
- Prof. Nagendra Kumar, IIT Roorkee
- Prof. Ranjana Harish, Retd. Head of the Department, Gujarat University
- Dr. Seema Malik, Mohan Lal Sukhadia University, Udaipur
- Dr. T. Ravichandran, IIT Kanpur.
- Professor Ms. R. R. Bhargava, IIT, Roorkee
- Prof. Dr. K.R. Pardasani, Maulana Azad National Institute of Technology, Bhopal
- Prof. Dr. M N Mehta, SVNIT, Surat.
- Dr. B S Bhaduria, Central University Lucknow, Uttar Pradesh
- Prof. B. Chandra, IIT-Delhi
- Dr. Mallikarjun, Institute of Management, Nirma University.
- Dr. Raghuvir Mody, Senior Economist
- Dr. Yogesh Doshit, Institute of Management, Nirma University.
- Shri Uresh I. Mehta, FIE Chairman, Gujarat State Centre, IEI

