

**A report on the Nirma University International Conference on Engineering (NUICONE)**  
**NUICONE 2017**

**Conference Name:** Nirma University International Conference on Engineering (NUICONE 2017)

**Conference Duration:** 23-25 November 2017

**Conference Venue:** Institute of Technology, Nirma University, Ahmedabad, Gujarat, India

We are delighted to present the knowledge sharing journey of the 6<sup>th</sup> international conference on Engineering, organised by Institute of Technology, Nirma University during 23-25 Nov 2017.

**Main Theme of Conference**

The main theme of the conference was Technology Drivers- The growth engine and was also focussed on green technology and innovations to sensitise the researchers, industry professionals and students towards the environment issues.

**Sub-Themes of Conference**

There were nineteen themes to cater the diversified needs of academics and industries:

- ❖ Autonomic Computing: Architectural Challenges and Solutions
- ❖ Networking Technologies: Performance and Security Challenges
- ❖ Next Generation Pattern Analysis
- ❖ Electronic Communications and Signal Processing
- ❖ VLSI Design
- ❖ Innovative Electronic Circuit Design
- ❖ Latest Trends in Electrical Power Systems
- ❖ Control of Power Electronics Converters and Drives
- ❖ Advanced Electrical Machines and Apparatus
- ❖ Control and Automation
- ❖ Chemical Process Development and Design
- ❖ Technologies for Green Environment
- ❖ Advances in Transportation Engineering
- ❖ Emerging Trends in Water Resources and Environmental Engineering
- ❖ Construction Technology and Management
- ❖ Concrete and Structural Engineering
- ❖ Sustainable Manufacturing Processes
- ❖ Design and Analysis of Machine and Mechanism
- ❖ Energy Conservation and Management.

**Details of Papers**

Around 290 research papers were received from various disciplines and only 90 papers were accepted for oral presentation after stringent quality checks. To ensure the quality the papers were checked for plagiarism, double blind review and language correction. These papers are going to be published by the reputed publishers IEEE and Taylor and Francis.

**Papers Submitted: 75**

Track	Reg. Paper
Mech	25
Civil	26
Chem	5
EC	4
IC	5
EE	5
CSE	5
Total	75*

Out of the papers presented in the conference, the papers related to circuit branches (Computer Engineering, Electrical Engineering, Instrumentation Engineering, Electronic Engineering) 19 papers published in IEEE while 56 papers (Civil Engineering, Mechanical Engineering and Chemical Engineering) published in Taylor and Francis.

### **Details of participants**

#### **Total Participation: 589**

Paid Registrations: 86 (Nirma 33, Gujarat 40, India 12, outside India 01)

Industry: 07, Research Organisation: 2, Academics: 77

Complimentary Invited participants from industry and research organisations: 52

Faculty members from the parent institute: 212

Complimentary M.Tech. students: 244

The conference received active participation across the country and abroad from Industry, academia and researchers from reputed organisations like IITs, NITs, IPR, ISRO, Northumbria University UK, University of New Brunswick Canada and University of Victoria Canada. Total participation including invited industry delegates, research organisations, post graduate students and faculty members was 589.

### **Details of Inauguration**

**The Inauguration of the conference was graced by the Chief Guest, Padma Vibhushan Shri Dr. Anil Kakodkar**, President, National Academy of Sciences India; Chairman, Rajiv Gandhi Science & Technology Commission; Member & Former Chairman Atomic Energy Commission. He shared his thoughts on economic growth of India with the help of researchers. He energised the youth to change mind set and attitude towards the research useful to society. He appealed the researchers to address the rural problems through research and to explore future market in rural India. He inspired the researchers not to leave India and to make big impact on economy by way of new start-ups as they do abroad. He also emphasize on conducive ecosystem between Universities and Industry for translation of knowledge into economy.

**Dr. A. Jayaraman**, Vice President, International Committee on Space Research-COSPAR, Paris and Former, Director, National Atmospheric Research Laboratory, ISRO was a guest of honour and keynote speaker. He delivered an insightful talk on atmospheric science and effect of technological development and life style on climate change. He shared the solutions to detrimental effect of climate change. He narrated the audience aware about the contribution of ISRO to cope with climate change.

The function was presided over by **Padma Shri Dr. Karshanbhai Patel**, Chairman Nirma Group of Industries and President Nirma University and motivated the gathering through his august presence.



Dr. Alka Mahajan, Director, IT, NU





**Dr. Anil Kakodkar**, President, National Academy of Sciences India; Chairman, Rajiv Gandhi Science & Technology Commission; Member & Former Chairman Atomic Energy Commission.

### **Panel Discussion**

Apart from the oral presentation of peer reviewed technical research papers in parallel tracks, we have also organised Panel Discussions on **Are We Infrastructure Ready for Smart Cities?** and **Fostering green technological innovations- Role of Industry and Academia**. Renowned industrialist, as the panellist, made the discussion live and thought provoking.

1. Dr Jaimin Vasa, President Gujarat Chemical Association(GCA), Chairman, Foreign Trade Committee, Gujarat Chamber of Commerce & Industry, Chairman and Managing Director, Vasa Pharmachem Pvt. Ltd.
2. Mr. Sunil Mehta, Chairman, CLPA, India
3. Shri Deepak Davda, CEO, The Green Environment Services Co-op. Soc. Ltd., Vatva
4. Mr. R. K. Sharma, Vice President, Quality Department, Howe Engineering Projects (India) Pvt. Ltd.
5. Mr. Rishi Gupta, Associate Professor, University of Victoria, Canada
6. Dr. P. N. Tekwani, Professor & Head of Electrical Engineering Department, ITNU
7. Mr. Jayesh Gandhi, President, Harikrupa Automation Pvt. Ltd., Ahmedabad
8. Mr Nikunj Patel, Vice President, CapGemini, Gandhinagar
9. Mr Roysan Rajan, COO, Altus Solutions, Gandhinagar
10. Madhukant Patel, MD and CTO Reve Automation LLP. Gandhinagar
11. Mr. Keyur Sampat, Joint Director, Revenue. Advisor, GIDB, Sardar Patel Institute of Public Administration, C/O, Regional Training Centre (SPIPA), Ahmedabad

## Expert Talks

Expert talks by Industry Professionals were scheduled explicitly on second day of conference. These special sessions were arranged with talks on current topics of multidisciplinary interest. We are indeed grateful to have prominent speakers for the invited talks in each theme.

Speaker	Designation	Topic
<b>Mr. Sameer Kelkar,</b>	CEO – Grind Master Group	Future Trends in Technology
<b>Dr.-Ing. Suryakant Gupta</b>	Scientific Officer IPR	Harnessing plasma technology for societal benefits and wealth creation
<b>Dr. Alan Richardson</b>	Reader, Department of Mechanical and Construction Engineering, Northumbria University, UK	Fibre use in Concrete – An examination of novel fibre types with regard to enhance performance.
<b>Dr. Virendra Bhavsar</b>	University of New Brunswick, Canada	Convergence of Big Data, Artificial Intelligence, and High Performance Computing
<b>Mr. Navin Sharma</b>	Vice President (Projects) , J K Lakshmi cements	In-house Innovations
<b>Mr. Nikunj ,</b>	Vice President, CapGemini	Internet of Things (IoT)
<b>Dr. Rishi Gupta,</b>	Associate Professor, University of Victoria, Canada.	Non-contact Non-Destructive Evaluation techniques for structural health monitoring
<b>Mr. Samir Shroff,</b>	Director, Pronesis Technologies (India) Ltd.	Disruptive Technologies of VLSI Design & Embedded systems
<b>Shri. Jayram Kursija</b>	Senior Divisional Electric Engineer (Power) Vadodara Division, Western Railways	State-of-the-art technology for mass transport system
<b>Mr. Chirag Shah</b>	<b>Chtd. Engr,</b> Sr. Manager-Piping Engineering JACOBS, Vadodara, India.	Piping Design issues and future scope
<b>Dr. Uttama Lahiri</b>	Assistant Professor, Electrical Engineering, IIT, Gandhinagar	Human-Centric Applications using Signal Processing Techniques
<b>Mr. Ameya Uday Munde</b>	Technical Manager, ARK Info-solutions, Pune	Using LABVIEW NXG
<b>Dr. Sudhirkumar Barai</b>	Professor, Department of Civil Engineering, Indian Institute of Technology, Kharagpur.	Damage detection in structure using particle swarm optimization method
<b>Shri. B. K. Vaishya</b>	Director, HEV R & D, Electrotherm India Pvt. Ltd.	State-of-the-art technology used for electric vehicles

## **Exhibition**

Exhibition on Green Technology and Innovations was one of the attraction of the conference. Institute of Plasma Research, Gandhinagar, BARC Mumbai & RRCAT Indore (research centres under DAE) displayed technologies on Plasmas & applications, Indian LASER and India's first 2 GeV particle Accelerator INDUS-II program. **J K Lakshmi Cements** exhibited in-house innovations for conservation of energy and tapping the resources. **PCRA** (Petroleum Conservation Research Association) brought awareness towards pollution and environment.

## **Sponsorship for Conference**

The conference was supported by many reputed associations of various engineering institutions like IE (India), ISA, IGBC, ASHRAE, CSCE and GUJCOST. We are also thankful to the sponsors for their generous support.

**Mr. S. Sriram**, General Manager - Marketing at Mitsubishi Electric India Private Ltd. was the chief guest of the function and the function was presided over by Shri. K. K. Patel, Vice President, Nirma University.

Indeed, the conference was a great success and fostered an environment to disseminate knowledge and to bridge gap between academia and industry.