

28<sup>th</sup> National Convention of Architectural Engineers, Udaipur

## Economic Architectural Designs: Challenges and Options

The Udaipur Local Centre of the Institution in association with College of Technology and Engineering, Udaipur, organized the 28<sup>th</sup> National Convention of Architectural Engineers and National Seminar on 'Economic Architectural Designs : Challenges and Options' during November 3-4, 2012 at Udaipur. The Chief Guest, Mr R P Gupta, Past President, IEI, inaugurated the Convention. While speaking on the occasion, Mr Gupta stressed on innovative technologies in the area of architectural designs for the building developmental works. He also emphasized on the cost effective technology and its sustainability towards construction works and optimum usage of materials in the age of rapid urbanization. The Guest-of-Honour, Mr N K Saini, Additional Chief Engineer, PWD, Udaipur, Government of Rajasthan, focused on the importance of



Release of Souvenir

architectural development in the societal reforms. The Keynote Speaker, Mr Avinash D Shirode, former Member of Architectural Engineering Division Board emphasized on the adoption of new technologies such as nano technology, fibrous concrete etc to minimize the cost of projects and sighted many examples in development of new technology with particular emphasis on low cost designs especially for rural infrastructure. Prof Jitendra Singh, Chairman, Architectural Engineering Division Board, IEI, presided over the function and spoke on the challenges of architectural designs in present scenario and emphasized on economic aspects of the constructional aspects for various kinds of buildings and infrastructure with inclusion of new environment friendly materials. Four eminent Architectural Engineers namely, Mr P K Maity, former Vice President, IEI; Prof Alok Ranjan, Dean (Administration), Malviya National Institute of Technology, Jaipur (in absentia); Mr B L Mantri, Director, B L Mantri and Associate Pvt Ltd, Udaipur and Mr Arun Kumar Sharma, Director, AVS Engineering Pvt Ltd, Udaipur, were felicitated. The T S Narayana Rao Memorial Lecture was delivered by Mr Nimish Bhai Patel, an Architect from Ahmedabad, on the topic 'The Under Utilized Wealth of Our Traditional Knowledge, Wisdom and Crafts in Our Backyards: The Exploration of a Design Practice'. He highlighted the traditional designs and means to protect heritage

architecture. The State-of-the-Art Lecture on 'New High Court Building at Jodhpur' was delivered by Mr T R Sharma, former Chief Architect, PWD, Government of Rajasthan. A Proceedings-cum-Souvenir was released by the Chief Guest on the occasion. Earlier, Dr Y C Bhatt, Chairman of the Centre, while delivering the welcome address, stressed on eco-friendly architectural designs for urban & the rural sectors. Mr S I Ali, Honorary Secretary of the Centre, proposed the vote of thanks. A large number of papers embracing the theme were presented by the authors from academia and industry in course of the two-day National Seminar. Recommendations that emerged included : *The designer should seek to maximize the 'Economic-functional Aesthetic Balance' by adopting practices like: Selection of design value based on a certain set of shared attitudes in sync with the need of the age; Putting priority on use of local material with appropriate aesthetic sense; Adherence to architectural, urban planning and design research issues which places importance on sustainability; Putting stress on environmental concerns reflecting perspectives of architects and industrial designers; Planning the establishment of new areas/colonies without compromising Global ecology; Emphasis should be placed on development of new materials such as nano technology, fibrous concrete etc to minimize the cost of projects; Utilization of waste material in construction should be encouraged.*

## Computing, Communication and Sensor Network

The Rourkela Local Centre of the Institution in association with Purushottam Institute of Engineering and Technology (PIET) organized a two-day All India Seminar on 'Computing, Communication and Sensor Network' during November 22-23, 2012 at Rourkela under the aegis of Computer Engineering Division. The Chief Guest, Prof S K Sarangi, Director, National Institute of Technology, Rourkela, spoke about how computer has played a major role in peoples' lives. The Chief Patron, Dr K M Purohit, Director, PIET said that two days' deliberation on the central theme would give a new dimension to the further research on communication and sensor network. The Guest-of-Honour, Mr K C Sahu, President, Purushottam Education and Welfare Trust, spoke about the welfare reform in technical education. The Keynote Speaker, Dr Amitabh Mukherjee, Senior Manager, IBM, Kolkata, elaborated on emerging areas of communication and said that research need to focus on new areas on sensor network. Earlier, Mr U Mishra, Chairman of the Centre, welcomed the august gathering and spoke about the use and application of modern sensing technology in every aspect of our lives. Proceedings of the Seminar were released by the Chief Guest. Prof P Patel, Co-

convener of the Seminar, proposed the vote of thanks. Recommendations that emerged included: *Total information exchange movement and the network required to control and share all information within different offices and people. It should be more intelligent and adaptive to fulfill diverse requirements with different options and applications. In financial sector, more secured network needs to be adopted in network. In advanced computing, for low powered sensors, different levels of abstractions of node, network and region level should be implemented to improve the overall service quality. To promote rapid growth of the country and conceive high performance computing, high-speed, low-energy, secured communication and application of sensors replacing old and obsolete technology can improve the confidence of customers across the world. This subject should be incorporated in engineering curriculum of college/universities. There is need to establish wireless sensor network laboratory in all institute/universities in order to generate technically qualified manpower for our industries.*



A view of the dais

## Nanotechnology Applications



A view of the dais

The Rajasthan State Centre of the Institution organized a two-day All India Seminar on 'Nanotechnology Applications' under the aegis of Interdisciplinary Coordination Committee during October 6-7, 2012 at Jaipur. The Chief Guest, Dr I K Bhat, Director, Malviya National Institute of Technology, Jaipur in his address, stated that characterizing nano sized materials is also an emerging field posing lot of challenges to scientists and technologists. Hence, the imaging techniques such as scanning electron microscopy (SEM), transmission electron microscopy (TEM/HRTEM), scanning tunnelling microscopy (STM), atomic force microscopy (AFM), etc. have been developed to observe the sub micron size materials, added Dr Bhat. The Guest-of-Honour, Dr A K Nayak, Scientist, Bhabha Atomic Research Centre, Mumbai in his address, stated that Materials reduced to the nanoscale show different properties compared to macroscale, enabling unique applications. He also spoke on molecular beam epitaxy, which allows scientists to lay down atomically precise layers of atoms and, in the process, build up complex structures in the field of spintronics. The Guest-of-Honour, Dr M K Banerjee, Steel Chair Professor, Malviya National, Institute of Technology, Jaipur in his address, stated that advanced nanotechnology would be based on mechanical engineering principles that would enable programmable, positional assembly to atomic specification. Earlier, Col (Dr) J L Saghal, Chairman of the Centre, welcomed the Chief Guest, Guests-of-Honour, corporate members and members of the august gathering. Dr A K Rajvanshi, Professor, Mechanical Engineering Department, MNIT, Jaipur and Organizing Chairman also spoke on the occasion and presented an overview of the Seminar. Dr G S Dangayach, Honorary Secretary of the Centre, proposed the vote of thanks. Recommendations that emerged included : *National laboratories and universities should initiate research projects for development of newer nano materials. Research should be carried out to find newer applications of nanotubes, nanorods and other fullerenes, which finds potential applications in the fields of medicine, agriculture, space technology, etc. Semiconductor nanoparticles should be used in the development of next generation products including display technology, lighting, solar cells and biological imaging, etc.*

## News in Brief

The following is a brief account of activities organised by various Centres/Overseas Chapter of the Institution

### STATE CENTRES

#### Andhra Pradesh

- Lecture on 'GIS-Transportation Engineering' delivered by Prof S S V Chalam, Department of Civil Engineering, Chaitanya Bharati Institute of Technology, Hyderabad on November 20, 2012.
- Mr Subhash Palekar, Natural Farming Proponent delivered Er Yarlagadda Sreeramulu Ninth Endowment Lecture on November 26, 2012.

#### Assam

- 14<sup>th</sup> H P Barua Memorial Lecture on the theme 'Road Safety – A Silent Disaster', delivered by Prof P K Sikdar, President, Intercontinental Consultants and Technocrats Pvt Ltd, New Delhi, on November 24, 2012.

### LOCAL CENTRES

#### Ghaziabad

- Celebrated National Technology Day on October 3, 2012.

#### Kanpur

- Organised 25<sup>th</sup> Dr Daya Swarup Memorial Lecture, delivered by Dr Kentesh Balani, Professor of Department of Material Science & Engineering, IIT Kanpur, on October 28, 2012.

#### Madurai

- Celebrated World Standards Day on October 14, 2012.

#### Mysore

- Seminar on 'ATOMS in the Service of the Nation', on October 13, 2012.

#### Nagpur

- Organised 16<sup>th</sup> Dr V M Dokras Memorial Oration, on October 27, 2012.

#### Roorkee

- Celebrated Disaster Mitigation Day on October 10, 2012.

### OVERSEAS CHAPTER

#### Qatar

- Seminar on 'Understanding Protection through Simulation', on October 18, 2012.