

**A Report on**  
**A Two day National Conference on**  
**‘DEVELOPMENT OF SMART CITIES FOR BETTER WORLD’**  
**NCDSC-2017**  
**August 18-19, 2017**  
**Organized by: Department of Civil Engg., SKIT, Jaipur**

No matter how much we can do by ourselves on the national level, whether it be research or development, it is never enough. But in a spirit of true cooperation, we must join in an action-oriented effort to attack and solve the problems that beset our livelihood. We, the ‘Department of Civil Engineering’, proudly SKITians in collaboration with ‘The Institution of Engineers’ put an effort in desire of accomplishment of the same.

The conference witnessed intellectual deliberations in plenary sessions and research paper presentations at parallel sessions. Inaugural ceremony was held on 18<sup>th</sup> August in Gyan Mandir auditorium. At the outset, a very warm welcome speech delivered by Shri Surja Ram Meel, *Chairman, SKIT* and Mr. Jaipal Meel, *Director, SKIT*. They appeal the students to act as responsible citizens and develop SKIT campus as a role model in the development of Jaipur smart city mission. The guests were welcomed and acquainted with SKIT by Prof. S.L. Surana, *Director Academics, SKIT*. Prof. D.K. Sharma, *convener* of the conference, apprised the guests about details of the conference. It was followed by the address of Prof. R.A. Gupta, *Honorary Secretary, IEL*.

Er. Anoop Bhartariya, *Chairman, World Trade Park* was Guest of honour of this conference. His vision and accomplishments on ‘Smart City’ mission amazed the audience. He emphasised that the development of a city should be in conjunction with three keys Economical, Efficient and Ethical. In EEE system ‘Education, Engineering & Enforcement’, education should come first, it follows Engineering and in last Enforcement. Mr. Ravi Jain, *IAS, CEO - Jaipur Smart City Limited* and commissioner Jaipur Nagar Nigam, Chief Guest of the conference, acquainted the audience with the strategic components and government initiatives on ‘Jaipur – Smart City’ project. He appealed the audience to join hands in ‘Swachh Bharat Abhiyan’ and other initiatives taken by the chief minister of the state for a better society. The inauguration session was concluded with vote of thanks by Dr. S K Calla, *Director (D&W), SKIT*.



The inaugural ceremony was followed by a scholarly lecture by Prof. S.L. Dhingra, Emeritus Professor, IIT Bombay on “Planning and implementation of Smart, Beautiful, Livable and travel free cities” and Dr. Suresh Jain, Professor, TERI University, New Delhi on “Services, Sustainability and Smart Cities in India”. Prof. Dhingra stated that in a growing city, the different modes of transportation should be properly coordinated. There should be proper feeder system for metro to become it user friendly. Revenue can be created in cities only by going underground due to land scarcity/ high price infrastructure. Dr. Jain said that the main cause of air pollution in big cities was transportation and that could be controlled by making public transport and pool of car more popular. This follows a technical session of paper presentations on various topics chaired by Dr. Suresh Jain.

Model making competition and poster presentation by the students of various years added more color and charm to the conference. Students’ efforts and their innovative ideas on the theme were much appreciated by the guests around the country. The first day concluded with the address by Dr. Ankit Gupta, Assistant Professor, IIT BHU, Dr. B. Uma Shankar, Associate Professor & Head, Civil Engineering Department, IIT Hyderabad on “Sustainable Geotechnics for Development of Smart Cities”. He said that we should opt advanced technologies like use of geosynthetics in infrastructure development. At the end, a presentation was given by Mr. Muni Rawal on “Water Supply and Sanitation”. His presentation revealed the requirement of self-sufficient-system e.g. by adapting rain water harvesting and waste water recycle.

The second day of the conference commenced with an address by Er. Chitranjan Kaushik, *COO*, Ecofirst Services Pvt. Limited, Mumbai and presentations by Er. Anil Singhal, Chief Engineer, Jaipur Smart City Limited and Dr. B L Swami, Professor, MNIT, Jaipur on “Traffic Management in Jaipur City”. Er. Kaushik said that the development should be self sustainable and due consideration should be given to maintenance. Er. Singhal made the audience acquaintance with the development of a dedicated lane for E- rickshaw in wall city Jaipur. The session was followed with presentations on “Smart Materials” by Dr. Pawan Kalla, from MNIT, Jaipur. Also Ar. Kavita Jain threw some light on “Role of Heritage in Smart Cities”. The second day was included with an engrossing panel discussion on “Development of Smart Cities”.

The paper presenters came from different parts of India. After the parallel plenary and technical sessions, chaired by Dr. Pawan Kalla and Dr. Sandeep Shrivastava, from MNIT, Jaipur, the conference was followed by presentations by Dr. S.K. Jain, MD, Ground water & Mineral Investigation Consultancy Centre Pvt. Ltd., Jaipur, Dr. Manoj Gupta, Poornima University, Jaipur and Dr. Shruti Himani, Aayojan School of Architecture, Jaipur. The conference was finally concluded with the Valedictory Ceremony which includes a much stimulus address by Shri Surja Ram Meel, *Chairman*, SKIT. He acknowledged the conference as a great success of Civil Engineering department and congratulated the organizers and the participants of the conference. At the end, a brief two day report of the conference was presented by Dr. Neha Shrivastava, *co-convener* and vote of thanks by Er. Ankit Sharma, *organizing secretary* of the conference.

## **Participation**

A total number of 33 papers were presented in three technical sessions, obtained from various institutions and organizations. Some of them are from IIT-Guwati, IIT-Mandi, NIT-Surat, MNIT-Jaipur, Manipal University-Jaipur and some from industry professionals. Collaboration is done with STM Publication to publish the selected papers in reputed civil engineering journals of relevant areas. Around 500 delegates from various part of the country participated in the conference including academicians, research scholars, students and professionals from industries.

## **Sponsorships**

The conference was organized in association with The Institution of Engineers (I). SKIT is thankful to DST Rajasthan for their financial support for organizing this conference. The conference was able to secure sponsorships from RAYS Power Experts, Geo Planet Solution Pvt. Ltd, Jaipur and AIMIL Ltd., New Delhi.

## **Recommendations emerging from the Conference**

1. There is an urgent need to utilize locally available waste mining stones as stabilizer, as coarse/fine aggregate in bituminous mixes, concrete mixes, cold patching mixes, mortar mixes, making of bricks/hollow blocks/ tiles etc in the development process of smart cities. State and central government must issue guidelines for the use of above mentioned waste materials in the construction activities during development of smart cities or otherwise also.
2. Unified Transport Authority (UTA) should be constituted to make comprehensive plan for next 20 years for the planning and development of public transport modes such as BRT, MRT & others for proposed smart cities to ensure efficient urban mobility.
3. Dedicated bus stops should be constructed aside of main roads where city buses can be stopped to pick/drop passengers without blocking main carriageway of city roads. It may be done by acquiring government lands available on the various routes.
4. To make India clean as one of the objectives of smart city mission, it is needed total elimination of open defecation and sanitary and safe disposal of 100% of human excreta and liquid waste. At the pragmatic level, Sulabh model and low-cost treatment technologies are recommended to achieve ecological sanitation in affordable and efficient manner.
5. Advance low-cost sanitation facilities should be developed and introduced at national level.

6. A proper monitoring system should be set up around the city to check the air pollution level and it should be maintained at-least below the permissible level by enforcement of regulations.
7. Long-term cost-effective sustainable Geotechnics should be promoted for infrastructure development. This includes use of ground improvement techniques, geo-textiles, etc. This will reduce the massive use of natural resources, cut down maintenance cost and lessen bad effect of climate changes on infrastructure.
8. Old buildings/ monuments of Jaipur Heritage City should be secured time-to-time by strengthening of its foundation by retrofitting, underpinning and grouting methods etc.

**(Dr. Neha Shrivastava)**  
**Co-convener-Conference**

**(Dr. D.K. Sharma)**  
**Convener-Conference**