

## Seminar on

### **Smart Cities: Environmental Engineering Perspectives**

Department of Civil Engineering, Dr. B.R. Ambedkar National Institute of Technology, Jalandhar organized a seminar titled “Smart Cities: Environmental Engineering Perspectives” on Sep 5<sup>th</sup>, 2018.

The speaker for the seminar was **Dr. Patric Gurian, Associate Professor, Drexel University, USA.**

Dr. Patrick Gurian is currently a faculty member in the Department of Civil, Architectural, and Environmental Engineering, Drexel University, USA. Dr. Gurian received his Ph.D. in Engineering & Public Policy, and Civil & Environmental Engineering from Carnegie Mellon University. He got his master’s degree in Environmental Engineering from Stanford University and A.B. in Chemistry from Harvard University. Dr. Gurian has almost 150 publications in various journals and conferences of international repute. He has completed 38 sponsored projects from various public and private sector agencies. He has won several accolades: Association of Environmental Engineering and Science Professors Distinguished Service Award in 2017; *Building and Environment* Best Paper Award and award for outstanding Research, Associate Professor, Drexel University College of Engineering in 2015; Outstanding Faculty Mentor Award, Drexel Graduate Student Association in 2012.

Dr. Gurian was welcomed by Dr. A. K. Agnihotri, Professor and head of the department, Civil Engineering department in the presence of Dr. S. P. Singh, Professor and Dean (Planning and Development), Dr. A. P. Singh, Professor and TEQIP Coordinator and Dr A. Mukhopadhyay, Professor (Textile Technology) and Associate Dean (Research and Consultancy). Besides, Dr. H. S. Chore, Dr. A K Choudhary (Associate Professor, Textile Technology), Mr. Davinder Singh, Ms. Shelja Bawa, Dr Rajiv Kumar, Dr Senthil K, Dr Shashikant Sharma, Dr Rupali S and Dr Mahesh Patel were also present.

In his lecture, Dr. Gurian focussed upon the importance of engineering cities to make them more environmentally friendly. He presented a case study of the city of Philadelphia, USA. The study of greenhouse gas emissions reduction opportunities for the city of Philadelphia concluded that an 80% reduction in emissions could feasibly be achieved. Improving energy efficiency of buildings was found to offer some highly cost-effective emissions mitigation opportunities. De-carbonization of the electricity supply offered large emissions reductions at reasonable mitigation costs, provided that 70% non-intermittent sources, such as nuclear power and fossil fuel generation with carbon capture and sequestration are used. Switching to walking and cycling for shorter trips had limited impacts on emissions, while electric vehicles have considerable potential when coupled with de-carbonization of the electricity supply.

The coordinators for the seminar, Dr. Amit Kumar and Dr. Kanish Kapoor are very much thankful to: Dr. Gurian for his time and insights on smart cities; the director sir, Prof. L K Awasthi for approving the funding for the event and inspiring; Dr. A. K. Agnihotri, Professor and head, Civil Engineering Department for his succinct advice and constant words of encouragement in every endeavour (including this one) that we at civil engineering department venture on to; Dr. S P Singh, Professor, Civil Engineering and Dr. A P Singh, Professor, Civil Engineering for their advice and cooperation;

students (Simranjit Singh, Ram Lal, Vinod Kr. Sharma, Bala Kalyan) from Ph.D. and M.Tech. for assisting in organizing the event.





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Dear Dr. Kumar:

It was a real pleasure to visit NIT Jalandhar earlier this month. As you requested I am writing to share some of my impressions. I greatly enjoyed my interactions with the faculty. Having 15 faculty members allows the department to span a range of specialties and support student development in many different aspects of civil engineering. I was impressed by the international collaborations already in place, including interactions with the University of Illinois in my own country of the United States. I would be happy to work together to develop additional interactions with my university.

Student engagement seemed very high as evidenced by the willingness of students to ask question and engage in discussion. In fact I have already received two follow ups from student participants. Having engaged students is the basis for a rewarding education, and I applaud NIT's ability to foster such engagement.

I appreciate the opportunity to visit NIT and look forward to further interactions with your faculty and students.

Sincerely,

Patrick Gurian  
Associate Professor