



## **G H Patel College of Engineering & Technology**

### **Department of Civil Engineering**

# **A REPORT ON**

**Expert Lecture on “Innovations in Environmental Engineering”**

**31<sup>st</sup> March, 2017**

Civil Engineering Department of G H Patel College of Engineering and Technology organized expert lecture on “Innovations in Environmental Engineering” in association with ISTE Student chapter and IGBC Student Chapter for students of 2<sup>nd</sup> and 3<sup>rd</sup> year Civil Engineering. The expert talk was delivered by Dr. Upendra D. Patel, Professor, Civil Engineering Department, The M. S. University of Baroda, Vadodara.

The lecture was started by describing the importance of environmental engineering in everyday life. All the environmental episodes were listed and explained one by one. He then explained the beginning and causes of the Broad Street cholera outbreak in London in 1854. Cholera in Soho district of London was spread due to the water used from a

particular hand pump which was contaminated with cholera virus because of leakage in an adjoining sewer pipe. Dr. Patel also informed us about the 1948 Donora Smog in Donora, PA, USA. The incident took place because of air inversion above the chimneys of industries that were nearby the town. It resulted in deadly smog that spread over the entire town.

He later talked about the fall of the Roman Empire which is believed to have occurred because of the use of lead pipes for transmission of water. Lead is a toxic metal which can cause disorders in nervous system. Similarly, MinamataChisso disaster (1956) in Minamata Bay, Japan, was a result of severe Mercury poisoning. Chisso Corporation dumped a lot of industrial waste water with high mercury. Which was consumed by fishes and the latter were consumed by men. It resulted in a deadly neurological syndrome. The Holy Cross College football team Hepatitis Outbreak (1969) was also a result of virus transmission through water.

Dr. Patel gave us information about the Love Canal disaster. Love Canal is a neighbourhood within Niagara Falls, New York. The neighbourhood is infamously known as the host of a 16-acre landfill that served as the epicentre of a massive environmental pollution disaster. Toxic chemical waste was dumped in a landmass which was later used to develop a residential community and affected the health of hundreds of residents. He also talked about the disastrous nature of Bhopal Gas Tragedy in India which took place due to MIC (Methyl Isocyanate) and caused death of thousands of human beings and animals alike. He made us understand the effect of our deeds on nature and how it gets back to us in one way or another.

Dr. Patel also showed us an informative video of a sewage treatment plant and all the stages of treatment. He acquainted us with the scope of environmental engineering and encouraged us to choose the field as it holds much importance in the upcoming times.

Overall, the lecture was very interesting and beneficial to all the students.