

Report on

**Expert talk on “Analysis of Water Distribution Network using
EPANET 2.0”**

Department of Civil Engineering, GCET organized an expert talk on “**Analysis of Water Distribution Network using EPANET 2.0**” on 5th September, 2022 by Dr. Nirav Shah, Assistant Professor, Faculty of Technology and Engineering, Civil Engineering Department, The M S University of Baroda, Vadodara. With vast experience in software application, Dr. Nirav enlightened 34 participants to the software application.

AIM:

The primary aim of the expert talk is to inform and enlighten the third students regarding utilization EPANET 2.0 software for water distribution network. Through this event it is our goal to expose students to practice that are taking place for managing water distribution network.

About the Talk:

Dr. Nirav Shah started his session by explaining the basic concept of water distribution system. First of all he discussed about Distribution system which is used to describe collectively the facilities used to supply water from its source to the point of usage. He mentioned the purpose of distribution system is to deliver water to consumer with appropriate quality, quantity and pressure. He then discussed the requirements of good water distribution system.

Dr. Nirav discussed in detail the gravity system, pumping system and combined systems of distribution with examples and images. Sir mentioned all the layouts of distribution system in details starting with Dead end system, Radial system, Grid iron system and Ring system. Sir also mentioned about the storage reservoirs.

Dr. Nirav explained that EPANET 2.0 is a software application used throughout the world to model water distribution systems. It can be used for many different types of applications in distribution systems analysis, It is used to design and size new water infrastructure, retrofit existing aging infrastructure, optimize operations of tanks and pumps, reduce storage energy usage, investigate water quality problems and prepare for emergencies. It can be also used to model contamination threats and evaluate resilience to security threats or natural disasters.

Students downloaded the software and sir has already prepared one example of pipe network analysis. The problem contains flow in pipes of a distribution Network. The problem was solved theoretically by Hardy Cross Method and then it was solved in software. Students learnt to draw network, application of pumps in the pipe lines, flow in the pipes etc.





In conclusion the expert talk was very informative and it was clear that students learnt a lot as they were actively asking questions and were curious about the software.

Poster of the expert talk:



Expert Talk
on
**"Analysis of Water Distribution Networks Using
EPANET 2.0 - Hands on Training Programs"**



Dr. Nirav Shah
• Assistant professor
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Civil Engineering Department
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📅 5th September 2022
📍 Civil Computer Lab Gcet
🕒 1.30pm to 3.30pm

G H Patel College of Engineering & Technology
(A Constituent College of CVM University)