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**Report of workshop on : Introduction and working of Water distribution system using software technology and various problems and solutions worked out in the past in Mumbai region.**

**Location:** B Ward" office near JJ hospital, Sandhurst road.

**Date of seminar:** 13/8/2024

**Time:** 11:00 am TO 2:30 pm

**Participants:** Second, third and final year Students of Civil Engineering Department, Saraswati College of Engineering, Kharghar.

**Number of students:** 25

**Resource Persons:** Er. Mhaskar sir, Er. Madhav sir, BMC 'B' ward office.

**POs attained:** PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1 & PSO2.

**Introduction**

A workshop was organized by the IWWA (Indian Water Works Association) Student Chapter on 13th August 2024, at the BMC (Brihanmumbai Municipal Corporation) Planning Department located at Sandhurst Road. The event was conducted for IWWA student members, providing them with a unique opportunity to gain insights into the water management systems and the latest technologies used by the BMC. The workshop commenced with a warm welcome by the officials of the BMC Planning Department Priyadarshani Kakade madam. The students were introduced to various aspects of water management in Mumbai, with a particular focus on the city's dams and the water distribution network. Then the introduction to water supply network and dams in Mumbai was given by Mhaskar sir. The introduction to the software Water CAD and its working was explained by Madhav sir.

**Objectives of the workshop**

- **Understanding Water Distribution Systems:** To provide a comprehensive introduction to water distribution systems, focusing on their components, functionality, and importance in urban areas like Mumbai.
- **Software Tools and Technologies:** To familiarize participants with the software tools and technologies used in designing, analyzing, and managing water distribution systems, including simulations, modeling, and real-time monitoring.
- **Case Studies from Mumbai:** To review specific case studies from the Mumbai region, highlighting the challenges faced in the past, the solutions implemented, and the outcomes achieved.

- **Problem Solving Techniques:** To equip participants with problem solving techniques and strategies for addressing common issues in water distribution, such as leakage detection, pressure management, and network optimization.

### **Session on dams and water distribution system in Mumbai**

The initial session provided students with a brief yet comprehensive understanding of the various dams that supply water to Mumbai. The discussion covered the history, capacity, and significance of these dams in meeting the city's water requirements. The students learned about the critical role these dams play in ensuring a steady and reliable supply of water to the city's residents.

Following the discussion on dams, the workshop shifted focus to Mumbai's extensive water distribution network. The students were informed about the challenges faced in maintaining city like Mumbai. The BMC officials highlighted the importance of an efficient distribution system to prevent water losses and ensure equitable distribution across different zones.

### **Session on Water CAD**

A key highlight of the workshop was the introduction to Water CAD, a software tool currently being utilized by the BMC for designing and resolving issues related to the city's water distribution network. The students were given a demonstration of the software, showcasing its capabilities in simulating various scenarios, optimizing the network, and addressing problems such as leaks, pressure drops, and demand fluctuations.

The practical session on Water CAD provided the students with valuable practical experience, allowing them to understand how theoretical knowledge is applied in real-world situations. The officials also discussed the future prospects of integrating more advanced technologies into the water management systems.

### **Conclusion**

The workshop concluded with an interactive Q&A session, where students had the opportunity to ask questions and clarify their doubts. The BMC officials encouraged the students to consider careers in water management and emphasized the importance of continual learning and adaptation in this field. Above all, the workshop was highly informative and provided the students with a deeper understanding of water management practices in Mumbai. It also equipped them with knowledge of cutting edge tools like WaterCAD, which are essential for addressing the challenges of urban water distribution.



**Photographs:**



Priyadarshani Kakade madam giving a brief introduction about the BMC ward office.



Mhaskar sir explaining about the Water distribution system in Mumbai.



Madhav sir explaining about the Water CAAD software.

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