

# MEBS6000

## Utility Services

Revision Class

# Topics done in the past lectures

- Cold and Flush Water Supply
- Design of Cold and Flush Water Systems
- Hot Water Systems
- Gaseous Systems
- Steam Systems
- Above and Below Ground Drainage
- Sewage Treatment

# Cold and Flush Water Supply

- What are the requirements for water to be potable (drinkable)?
- How our drinking water is being treated?
- Are there any water quality management incentives by the government?
- What are incentives for water conservation?

# Hot Water Supply

- What is the demand of hot water?
- What is the analysis to determine the proper heater and storage tank sizing?
- What are the other methods of hot water generation other than gas or electric heaters? What are their operating principles? Pros & cons?
- What are the system arrangements of a typical centralised hot water system (direct or indirect)?
- What are the primary and secondary circuits in hot water systems? Why there is a secondary return?

# Design of Cold and Flush Water Systems

- What is the concept of probable demand?  
What is the relationship between Loading Unit and flow rate?
- What are the different system arrangements for water supply systems, e.g. gravity supply, top-floor boosting supply, etc.?

# Steam Systems

- Why steam is adopted instead of hot water?  
What are the advantages?
- What are the functions of steam traps, which is unique in steam systems?
- How steam pipes are sized?
- What is meant by 'flash steam'?

# Drainage

- What are the functions of water seal in traps and how the seal is lost?
- How the Discharge Unit (DU) is determined?
- What are functions of grease traps and petrol interceptors?

# Sewage Treatment

- What are the methods of sewage disposal?
- What are the processes of sewage treatment?
- How the contents of sewage are removed during the processes?