

Annexure: 1 MODULE WISE COURSE CONTENT AND OUTCOME

TABLE : MODULE WISE COURSE CONTENT AND OUTCOME				
S I · N o	Module Name	Module Content	Module Learning Outcome	Duration (Hrs)
1	Introducti on to Water Networks	Basics of water distribution systems, components, and challenges.	Understand the principles of water distribution.	10
2	EPANET Basics	Overview of EPANET software, interface, and functionalities.	Navigate and use EPANET for basic modeling tasks.	15
3	Advanced EPANET Applications	Simulating pressure, flow, and water quality in networks.	Solve complex Water distribution problems.	15
4	Project Workshop	Integration of all skills into a final project.	Apply all concepts in a real-world scenario.	5

ANNEXURE: 2 Industry Use Cases/Final Projects

1. Identify and explain water distribution issues.
2. Design a simple water network for a residential area.
3. Optimize water pressure and flow in a city network.

TABLE: LIST OF INDUSTRY USE CASES (PROJECTS THAT COMPREHENSIVELY COVER ALL THE LEARNING OUTCOMES)	
S.NO	Final Projects
1	Model and optimize a water distribution network for a small town using EPANET.
2	Analyze water pressure and quality in an urban distribution system.
3	Propose a solution for reducing water leakage in a municipal network.

ANNEXURE :3 Assessment Rubrics

TABLE: COURSE ASSESSMENT RUBRICS (TOTAL MARKS: 70)				
ASSESSMENT CRITERIA	FAIR (50%-64%)	GOOD (65%-79%)	EXCELLENT (80%-100%)	WEIGHTAGE (MARKS)
Practical Skills Proficiency	Basic skills with limited accuracy	Competent with minor errors	Outstanding with perfect execution	20
Technical Knowledge	Minimal understanding	Sufficient knowledge application	Exceptional understanding and application	10
Project Execution	Basic project with minimal effort	Comprehensive with minor gaps	Innovative and flawless execution	30
Communication and Reporting	Basic clarity	Clear and adequate presentation	Professional and precise presentation	10