

# GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Semester: 2

## Water Resources Management

Subject Name Design of Canal Network and Regulation Work

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Sr.No	Course content
1	Introduction to Canal net work Planning.
2	Design of stable channels in alluvial soils, unlined and lined canals,
3	Design of canal regulation works and cross drainage works and outlet structures.
4	Detail design of canals and distribution system.
5	Khosla's theory for design of structures on permeable foundations,
6	Application of Khosla's theory for design of hydraulic structures like barrage, weir, cross regulator, head regulator, canal falls and others

### List of Tutorials:

1. Design of barrage
2. Design of Fall
3. Design of canal network & regulation work
4. Tutorial on stable channels.
5. Tutorial on Lined and unlined canals
6. Tutorial on regulation and CD works and outlet structures
7. Tutorial on detailed design of canals and distribution system
8. Tutorial on khosla's theory and design of structures on permeable foundation
9. Tutorial on weir, cross regulator work, head regulator.

### Reference Books:

1. Design text books in Civil Engineering -Serge Leliavsky.
2. C.B.I. Publication No.12 of Government of India
3. Irrigation Engineering – Bharatsingh
4. Hydraulics of sediment transport - W.H.Graf
5. Relevant Indian standards
6. Irrigation Water Resources - Dr.P.N.Modi
7. Irrigation – Dr. B. C. Punamia
8. Irrigation and Hydraulic Structures – S. K. Garg
9. Theory and Design of Hydraulic Structures – Varshney & Gupta