

**SIX WEEKS SHORT TERM PROGRAMME IN WATER RESOURCES/HYDRO
POWER DEVELOPMENT
FOR ENGINEERING DEGREE AND DIPLOMA PASSED OUT STUDENTS**

Particulars	Weeks	Contact Hours
Water Resources: Global and National International Scenario, National and Interstate issues Distribution, types of development, Environmental Impact of Projects, Hydrology and Hydrometry	I	
Water Resources Projects: Types, uses, planning design criteria, economics, Modes of partnership.	II	
Hydropower Project: Power Senario, Potential, Present Pace of Development Types of Projects: Large and multipurpose projects, small projects, stand alone projects, Economics and Environmental Impact of different type of projects.	III	
Power: Generation, Transmission, Distribution in Rural Areas, Private sector participation.	IV	
Project management: a. Types of Projects, issues and dimensions in water management projects b. Project identification conceptualization, implementation, monitoring, review and control c. Preparation of Pre-feasibility Report, Detailed Project Report, d. Raising of Resources, Deployment of Resources, investment decisions. e. Technical feasibility, commercial, financial and economic viability. f. Power Purchase agreements, contract agreements, obligations. g. Use of project management soft wares	V	
Forest: Conservation, Soil Conservation, catchment treatment, land acquisition, forest laws. Land slides and earthquake hazards and risks. Public awareness and participation, Resettlement and Rehabilitation issues, Laws rules and regulations related to water resources and projects (national and state) Rain water harvesting and water recharge.	VI	

FOR ENGINEERING DIPLOMA LEVEL CORE SUBJECT

For the branches in Civil, Electrical, Mechanical, Industrial, Agriculture, Environmental, Production, Electric

AT INDUSTRIAL TRAINING INSTITUTE LEVEL

Center of Excellence are under making in the state. These shall include following Trades which shall have direct employment in water resources projects

Electrical Trade

1. Cabling
2. Control/switchboard/ instrument
3. Transformer
4. Generator
5. Pumps compressors valves and gates
6. Metering

Mechanical Trade

1. Hydraulic turbines
2. Piping
3. Welding/ fabrication
4. Machining
5. Erection

Suggested Readings: