

**CHHOTUBHAI GOPALBHAI PATEL INSTITUTE OF TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING**



A Report on Educational Visit at
Ukai dam and Ukai Hydro Powerplant at Ukai on 14/12/2018

For
Diploma 4th Semester

Organized by
CIVIL ENGINEERING DEPARTMENT



छोटुभाई गोपालभाई पटेल प्रौद्योगिकी संस्थान, वारडोली
Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli

**CHHOTUBHAI GOPALBHAI PATEL INSTITUTE OF
TECHNOLOGY, UKA TARSADIA UNIVERSITY**

Schedule of Visit:

Time		Location
9:45	11:30	CGPIT campus to Songadh
11:30	12:30	Lunch at kells hotel, Songadh
12:30	12:45	Group photo
12:45	2:45	Visit of hydro power plant and ukai dam
2:45	4:15	Ukai to CGPIT campus

Total no. of students: 35 (Diploma 4th Semester)

Faculty Organizer: Ms. Khyati Mistry

Faculty Co-ordinator: Prof. Maulik Kakadiya, Prof. Bijal Chaudhri

The department has arranged an educational visit to ukai dam and ukai hydro power plant for 4th semester diploma students of civil engineering department. The visit was organized with the prior permission and guidance of Hon. Director Dr. R. V. Patil and and Head of Civil Engineering Department Dr. Manoj Gundaliya.

Details of visit:

The Ukai Dam, constructed across the Tapti River about 29 k.m. up steam of kakrapar weir. It is the second largest reservoir in Gujarat after the Sardar Sarovar. The project is largest multi-project under taken by state government. The various utility of project is as under:

- Irrigation purpose
- Power generation
- Flood protection
- Fisheries development
- Bed cultivations

Dam Hydrology:

1. Catchment area: 62225 sq. k.m.
2. Dam length: 4926.79 m
3. Dam height: 68.58 m from river bed
4. Dead storage: 270 FRL
5. Gross storage: 345 FRL

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Details of Ukai Hydro Powerplant:

Ukai Hydro Powerplant. Ltd. established on 1972 under the name of our honourable PM Morarji Desai. They are capable to supply overall surat district the power of electricity. It's Construction began in the year 1964.It's construction cost was Rs.1389.6 Million. It has 22 spillways and that too radial. The spillway capacity is of 46,269m³/s. An hydraulic head of 57 meters and has installed capacity of 300 MW dividing the generation with 4 turbines each of 75 MW.

Power Section (Hydro):

Size of penstock	4 nos. 7.01 m Dia.
Installation of 4 units of 75 MW each	300 M.W.
Generation at 35 load factor.	193 M.W
Annual energy (Units)	670 X 108 K WH

Canal Bed Power House:

Size of penstock	3.96 m X 2.05 m
Installation of 2 units of 2.5 MW each	5 M.W.
Type of hoist	Hydraulic hoist
Discharge through each unit	550 cusecs

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Group Photo

