Chhotubhai Gopalbhai Patel Institute of Technology, Civil Engineering Department,
Field Visit Report (Kadana Dam)

Name of Dam: Kadana Dam

Date of Visit: 11/09/2017, Monday

Total No. of Student: 115

Total No. of Faculty: 05

Faculty Coordinator: Prof. Nikahat Samnani

Other Faculty: - Prof. Jasmin Gadhiya, Prof.Mehul Patel, Prof. Aditya Bhatt, Prof.Nikahat Samnani, Prof. Khyati Mistry

The Civil Department of CGPIT has arranged an industrial visit to Kadana Dam site for B.Tech 4th Year students of Civil department. The visit was organized with the prior permission and guidance of Hon. Director Dr. N.C. Shah and Head of Civil Engineering Department, Mr. K.N. Gandhi.

Details of Visit:

Kadana Dam is an earthen and masonry dam on the Mahi River in Mahisagar district of Gujarat, India. The dam was constructed between 1979 and 1989. The dam supports a pumped-storage hydroelectric power-station. The first two generators were commissioned in 1990, the second two in 1998. The first two generators commissioned, Stage I, are reversible Kaplan turbines that allow the power station to generate electricity during peak hours then pump it back into the reservoir during low demand hours such as night.

At the end of dam visit, there was a technical interaction to strengthen the knowledge regarding Kadana Dam with Assistant engineer Rinkal mam.

Lunch and Breakfast were arranged at Rest House. The arrangement of Mr.Mohanlal Maharaj is so nice all students enjoyed the food.

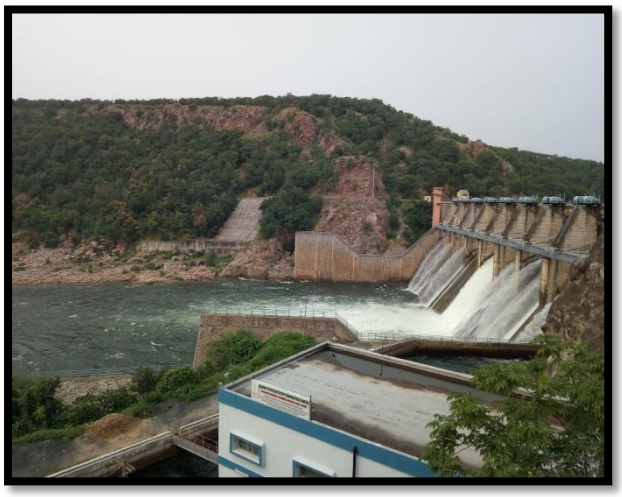
The visit was very fruitful as it improved our knowledge of irrigation and dam. We had very good support and cooperation from all concern instructors available on the site who explained each and every section very interestingly and deeply.

Education tour start from L.P. Savani circle at 4:30 Am and from bardoli at 4:30 am on date 11/09/2017 and return to surat at 11:00 pm on date 12/09/2017.

Table 1. General Information

Location	Village: Kadana, Tal: SantrampurDist: Panchmahals
Purpose	Irrigation, Hydro-Power & Flood Protection
River	Mahi
Area of catchment	25520 km^2
Mean annual runoff in the catchment	7696 Mm3
Mean annual rainfall	760 mm
Year of commencement of construction work	1969
Year of completion	1979
Type of dam	Masonry with embankment main section
Height	66 m (217 ft)
Length	575 m (1,886 ft)
Active capacity of reservoir	1,203,000,000 m3 (975,000 acre·ft)
Catchment area	25,520 km2 (9,850 sq mi)
Turbines	Stage I: 2 x 60 MW Stage II: 2 x 60 MW Kaplan type
Installed capacity	240 MW
Spillway	
Type Of spillway	Ogee
Length	406 m Main Spillway + 133 m Add. Spillway.
Energy dissipater	Roller Bucket
Maximum discharge	49497 m3/s
Type, Nos. and size of gate	Radial, 27, (15.5m x 14m) (21 Main spillway, 6 Add. Spillway)

AT KADANA DAM SITE



Side View of Dam

Spillway of Dam

Reservoir of Dam