

A Report on Technical Visit at “Hydro Power Station”, Ukai

Mechanical Engineering Department of SNPIT&RC, Umrakh had organized a technical visit at “Hydro Power Station” Ukai, Taluka-Songadh, Dist.-Tapi on 10th September, 2018 for the students of 5th semester under the subject of Fluid Power Engineering (2151903). Total 97 students had visited the site under the guidance of Prof. Anil Patel, Prof. Rinkesh Patel, Prof. Hiren Tamboli & Mr. Jignesh Soni, who have explained about different structures like Head, Penstock gate, Kaplan Turbine & Generator at the site.



The Ukai Dam, constructed across the Tapti River, is the second largest reservoir in Gujarat after the Sardar Sarovar. It is also known as Vallabh Sagar. Constructed in 1972, the dam is meant for irrigation, power generation and flood control. Having a catchment area of about 62,255 km² and a water spread of about 52,000 hectares, its capacity is almost same as that of the Bhakra Nangal Dam. The site is located 94 km from Surat.



The storage capacity of Ukai dam is almost 46% of the total capacity of all the other existing dams in Gujarat if put together. Thus it can be concluded that the rest of the dams have as little as 0.1% average storage capacity. During the last 40 years, the actual irrigation potential is attained through all the major and medium water resources projects in the state, which comprises only 14 million hectares. There are four hydro turbine units, each of 75 MW with a total installed capacity of 300 MW. All the above units were made by BHEL. Commissioning dates of units 1 to 4 are: 8 July 1974, 13 December 1974, 22 April 1975 and 4 March 1976.

