APPROACH DETAILS

Ministry/Organization Name: **Ministry Of Power**

Problem code: **PK365**

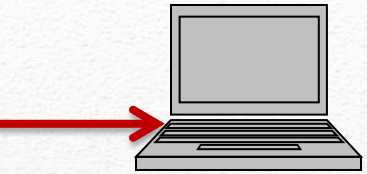
Problem Statement: **Remotely Operated Vehicle (ROV) for inspection of Head Race Tunnels in Hydro-electric plant.**

Team Name: Tech Tribe

Team Leader: VIHANG PATHAK **College Code:**

PROTOTYPE DETAILS

REMOTELY OPERATED VEHICLE



COMPUTER

ETHERNET CABLE

12V LIPO BATTERY

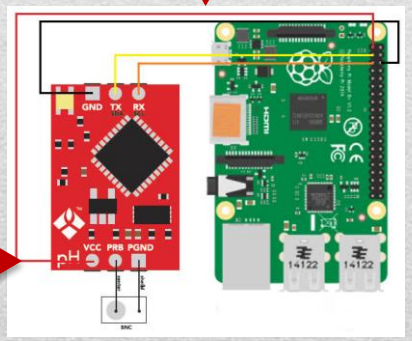
WIFI CAMERA

ETHERNET CABLE

RASPBERRY PI

ROUTER

FIBER OPTIC CABLE



PH SENSOR

CASE DESCRIPTION

Overview:

Head-race tunnel monitoring is a critical task, emptying the tunnel is not feasible.

Solution-ROV

Proposed Idea:

ROV capable of diving deep down the tunnel and monitor it via wireless camera.

Connected through a fibre optic cable and a router

Methodology:

ROV controlled via Raspberry pi

Motion achieved → Vertical Motion: Ballast tanks ,thrusters

Horizontal motion: Propellers

Pi interfaced with pH sensor : Acidity detection

G-Pro : To monitor Tunnel cracks