

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
“JNANA SANGAMA”, BELGAUM-590 018**



**A Project Report on  
“Harnessing Tidal Energy to Generate Electricity for Sustainable Mankind”**

**Submitted In The Partial Fulfillment of the Requirements of Award of Degree of  
Bachelor of Engineering  
In  
Mechanical Engineering**

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# ABSTRACT

How does one visualize tide? Is it the way sea shore stroked by huge source of water or the way boat gets floats in a pleasant breeze? What if tide could be visualized using design, technology and light? This project gives the design and display of Vertical Axis Tidal Turbine that can be used to visualize the tide. The main focus is to design the turbine which will be operating below the floating platform and its analysis using ANSYS WORK-BENCH package. The system we have conceptualized is to have a tidal mill (exactly on the lines of wind mill) which is inverted and is connected to a platform which can float on the surface of water. When the tides / waves create pressure on the blades, a mechanism of turbines and generator start rotating, producing electricity. A series of software installation monitor the ambient pressure required to produce a constant power. The team aims to develop the mechanical components which are of low cost, low maintenance, made from light weight materials and has high efficiency in generating electricity. The team also aims at generating low cost and high quality electricity so that everyone in the country is benefited.