

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM



**A
PROJECT REPORT
ON**

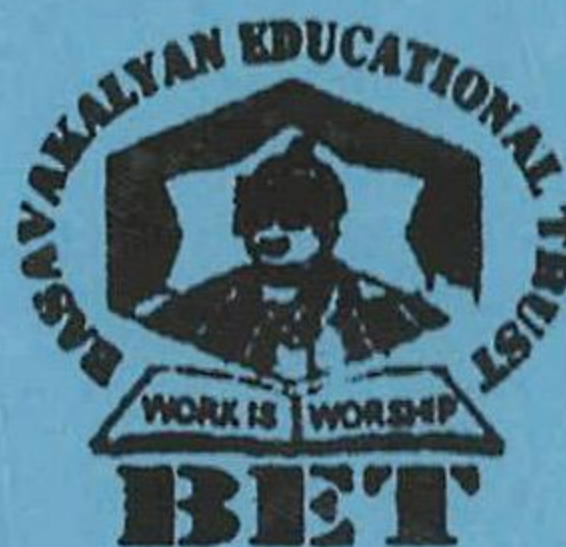
**“PORTABLE POWER STATION BY USING
SOLAR & WIND POWER”**

**Submitted in Partial Fulfilment of the Requirement for the Award of Degree
BACHELOR OF ENGINEERING
IN
MECHANICAL ENGINEERING**

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1. INTRODUCTION

WIND ENERGY:

Wind power is generated by moving air. As the sun heats the land, the air above also warms and rises. Cold air then replaces the rising air. This creates the winds that we feel most days of the year. The diagram below shows how this 'system' works.

Air tends to warm at a faster rate over land because the land retains its heat. Over the sea the air warms more slowly as heat by the sun is slowly cooled by the cold water. If you visit the seaside or coastal area you will probably find that the weather is more breezy or windy than inland. This is because the warm air rises over the land and cold air over the sea replaces it.

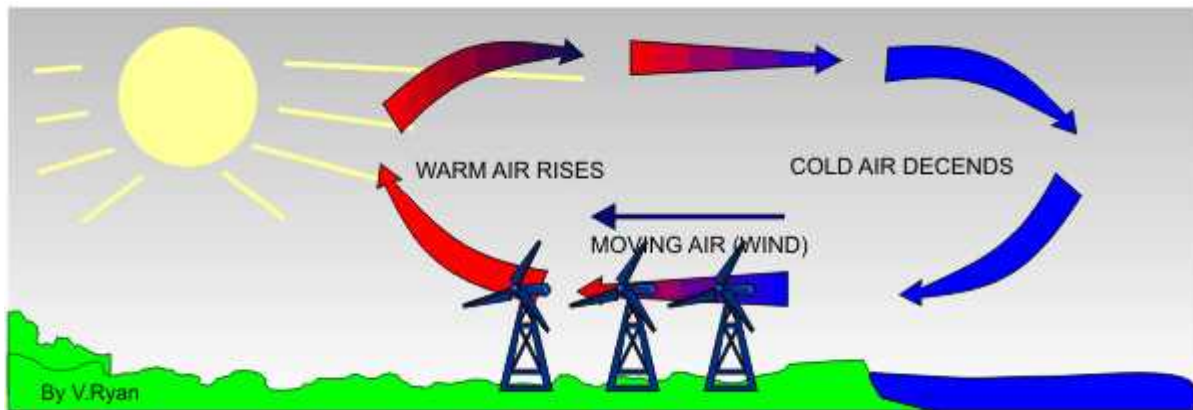


Figure 1.0: How wind turbine works