WIND GENERATOR
BATTERY CHARGER

Thesis presented in partial fulfillment for the award of the Bachelor of Electrical Engineering (Honours) of INSTITUT TEKNOLOGI MARA

MAHANIM BT MAHAD
School of Electrical Engineering
INSTITUT TEKNOLOGI MARA
40450 Shah Alam
Selangor Darul Ehsan
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ABSTRACT

More than 5000 years ago, people have harnessed the wind, such as to sail the ships, built turbines etc. Later, people used wind power for pumping water and generating electricity. Wind is a viable alternative energy source especially in the middle of the sea. In this project, the equipment is for marine use. The main advantages of the design equipment are portability and cost effectiveness. The circuit is simple to design and suitable for our local wind condition.

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1.0 INTRODUCTION / HISTORY

Throughout history people have harnessed the wind. More than 5000 years ago, the Egyptians used the wind to sail ships on the Nile. Later, people built the first turbines to grind grain. These machines looked like paddle wheels and were used in Persia as early as 200 BC.

By the 14th century, the Dutch had taken the lead in improving the design of windmills. They invented propeller type blades and used wind power to drain the marshes and lakes of the Rhone River delta. In America, early European settlers used windmills to grind wheat and corn, to pump water, and to cut wood at sawmills.

By the early twentieth century, small windmills were used for pumping water and electric power generation in Europe, the United States, Africa, and elsewhere. In addition to thousands of small wind electric generators, a few larger systems were built in North America and Europe.

Blowing wind spins the blades on a wind turbine - just like a large toy pinwheel. The spinning blades turn a generator that makes electricity. The wind turbine is like a ' reverse fan '. When we use a fan in our house, the electricity turns the motor which turns the blades.