

**DEPARTMENT OF ELECTRICAL ENGINEERING
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FINAL REPORT OF DIPLOMA PROJECT

**VARIABLE POWER SUPPLY
(WIND POWER SYSTEM)**

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ABSTRACT

As we know, the population of human has increased greatly nowadays. The increasing of population means that the demand for energy is greater year by year. But, most of energy that we use nowadays is not renewable energy and it will decrease and may be finished in a short time. So, from now we must have the alternative energy that will support the demand of human. Wind is a form of solar energy. Winds are caused by the uneven heating of the atmosphere by the sun, the irregularities of the earth's surface, and rotation of the earth. Wind flow patterns are modified by the earth's terrain, bodies of water, and vegetation. Humans use this wind flow, or motion energy, for many purposes: sailing, flying a kite, and even generating electricity.

The term wind energy or wind power describes the process by which the wind is used to generate mechanical power or electricity. Wind turbines convert the kinetic energy in the wind into mechanical power. This mechanical power can be used for specific tasks (such as grinding grain or pumping water) or a generator can convert this mechanical power into electricity.

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

Project 2(KEU 380) is one of the subject that we must take in part six in order to get the diploma in electrical engineering. In this project we have six members which divided into three sub group which in each sub-group has two members. Each sub-group has their own task. The title of our project that was given to us is the electricity that produced by the wind (alternative energy).

Sub-group one for introduction/source, second sub-group for converter/inverter and third sub-group for the output. At the end of this semester each sub-group will combine their task (report) and send them to our supervisor. On the last semester, we have done our research on building the platform for the project. This semester, our task is to build the project in order to pass the KEU 380.