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STUDENT PROJECT PROPOSAL

(SPP-37th SEREIS: 2013-2014)



Dr.AMBEDKAR INSTITUTE OF TECHNOLOGY

Near JnanaBharathi Campus, BDA Outer Ring Road, Mallathahalli, Bangalore-560056

Dr. JYOTI P KOUJALAGI

SPP co-ordinator, Dr.Ambedkar Institute of Technology

PROJECT TITLE:

A NEW GENERATION ECO-FRIENDLY POWER HOUSE

Project ref. no.: 37S1055

Department of Electrical and Electronics Engineering

Under Innovative project

GUIDANCE BY:

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1. INTRODUCTION

1.1 WHY SAVE ENERGY?

Energy is defined as the capacity or the ability to do the work. Energy can neither be created nor destroyed but only transformed from one form to another form. In such transformation process the total energy remains the same and the transfer of energy from one system to another result in a loss to compensate for any gain. This is called the principle of energy conservation. Energy is one of the most fundamental parts of our universe. The combination of matter and energy make up the universe. Matter is the substance and energy is the mover of the substance. Energy is one of the basic essential requirements of human life. In fact, it is the backbone of present day civilization. Life cannot exist without energy. Energy gives personal comfort and mobility to people. We buy energy, sell energy, eat energy, waste energy, talk a little about conserving energy and fight over energy. Without energy, nothing would ever change, nothing would ever happen. Energy is a scalar quantity. Its unit of measurement is joules, but it is measured in kilo watt-hours. The total energy contained in an object is identified by its mass and energy. Technology is a critical link between the supply of energy services and access, affordability and environmental compatibility.

The energy system is designed to meet demands for a variety of services such as cooking, illumination, comfortable indoor climate, refrigerated storage, transportation, information and consumer goods. People are interested not in energy, but in energy services.

1.2 WORLD ENERGY SCENARIO

Energy undergirds civilization and has powered the sweeping economic changes that have transformed the world over the last two and a half centuries. The development of the modern world has been a story of evolving new uses for energy and constantly growing energy demand. New forms of energy and new technology to harness that energy have been developed over time, shifting the energy balance and expanding the menu of energy sources.

Energy markets are evolving constantly. Economic factor determines various energy supply and demand outcomes. Energy systems have become increasingly instrumented and