VISVESVARAYA TECHNOLOGICAL UNIVERSTY, BELGAUM

A PROJECT REPORT
ON

"ENERGY HARVESTING FROM SOUND USING THE PRINCIPLE OF PIEZOELECTRICITY"

(SPONSORED BY K.S.C.S.T, BANGALORE)

Submitted in partial fulfillment of the requirements for the award of the Degree of
BACHELORS OF ENGINEERING

IN

ELECTRICAL & ELECTRONICS ENGINEERING

Submitted by

Nikita Arora	**USN: 2BU10EE019**
Apeksha Lokare	**USN: 2BU10EE006**
Pooja Patil	**USN: 2BU10EE021**
Poonam Mali	**USN: 2BU10EE022**

Under the Guidance of
Prof. Soumya Asangimath

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
Shri Siddharameshwar Education trust's
S.G BALEKUNDRI INSTITUTE OF TECHNOLOGY
Shivbasav Nagar, Belgaum-590010

2013-2014

ABSTRACT

Energy crisis is the talk of the world today. There have been many inventions and discoveries but the future of those innovations has been jeopardized due to the non-availability of resources. There are many energy resources which have not been explored yet. One such viable option which has been underused is the sound energy. Sound is a freely and vastly available renewable source of energy. As sound is mechanical wave comprising of vibrations, sound energy can be converted into electrical energy by making use of the piezoelectric materials.

In this 21st century electric power has very deeply indulged in our society. The world population is rising and also due to the drastic progress of mankind day by day the electricity consumption is increasing rapidly. On the other hand the production of electric power is limited. To bridge the gap between demand and supply, researchers all over the globe are working towards a common goal of finding new and innovative methods for electricity production.

In this century the most common thing encountered everywhere is noise pollution. This waste form of sound energy can be efficiently utilized for electricity production by making use of the piezoelectricity principles. Piezo-materials convert mechanical strain into electrical energy. This property of piezoelectric material would be able to sustainably convert the sound energy to electrical energy.