A Roar for Energy: The Piezoelectric Effect

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Scantiness of energy resources is a muddle faced by many nations in this ever-developing world. As a result, this issue penetrates into the rural, under-developed zones and people there undergo further agony. The project is an effort to overcome this problem starting with the basic need for energy (i.e. Light) by making applicable, the use of “Piezoelectric effect”. For that cause a Piezoelectric Transducer is used which operates under the mechanism of this effect, in which the subjection of variation in pressure to the transducer causes it to give off the potential difference across its terminals (induced vibrations could be in any form i.e. wind, sound, mechanical turbulence etc.) This potential difference obtained (in small but recurrent values) is being amplified by the use of transistors, the amplified signals obtained from the transducer upon reaching the desired value are passed on to an external load in the form of a secondary cell, supplying enough energy to charge the cell. The cell can then be used to power up torches or for other like purposes. Upon taking a step forth into one of the future technologies, subtle changes can be made required for avoiding possible energy losses by increasing transducer’s input (by making new designs of transducers) so that they give most proficient outputs and by the use of such piezoelectric materials that are recyclable (i.e. Dry bones, silica or silk) so that energy is conserved in our environment by an eco- friendly method that is resourceful for us.

Awards Won: