



## BUSHR ENERGY

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**ABSTRACT**— Here in this it's given that the mechanical energy to electrical energy by human's footsteps. As we know that energy can be converted from one form to another and humans are wasting some of huge energies in different forms, best is the footsteps pressurized energy. This energy can be converted to electrical by the help of dynamo or the piezoelectric crystal. Due to this crystal as the ability to convert mechanical energy to electric energy as every vibration occurs on it will give electric output and this can be used to charge any devices as per energy consumption it may happen that many things together will give high energy so its discussion on power harvesting or generating.

**Keywords**— Energy generation, Power Harvesting, Green Energy, Using unused Energy, Using piezoelectric materials, Vibration as an energy.

### I. INTRODUCTION:

It's true that in future demand for every single person for the electricity will much more as now days it's gone large amount because of different operation happening in day to day life of human. Lot of power is wasted in many operation and produced from different way but from that one way is human bio-energy, its used in less amount and more is wasted it can be utilized in high amount and made possible that it can make future bright by at every step electricity production. As day to day foot step of every human is 3000 to 5000 average for only working human. So when we walk a vibration is released from our walk and also we have some weight and mass so the mass gives pressure to rotate dynamo and vibration gives energy to piezoelectric crystal to make electrical energy. And as given dynamo and crystal together will generate good amount of energy that can be worked to charge laptop and mobile devices and also if it putted together at working place than it will work as an energy generator and gives huge amount of energy.

This technology is based on a principle called the piezoelectric effect, in which certain materials have the ability to build up an electrical charge from having pressure and strain applied to them. Piezoelectricity refers to the ability of some materials to generate an electric potential in response to applied pressure.[1,7] Harvesting of energy which means energy is already available, but is going to waste if not utilized. Embedded piezoelectric material can provide the magic of converting pressure exerted by the moving people into electric current.



Figure. 1 Special flooring of tiles using piezoelectric material

### II. RELATED WORK:

A piezo tile capable of generating 40V has been devised. Comparison between various piezo electric material shows that PZT is superior in characteristics. Also, by comparison it was found that series- parallel combination connection is more suitable. it was considered necessary to specify some of the finer details of Piezoelectric Crystals and how work it's done by the Future Source of Electricity, International Journal of Scientific Engineering and Technology Mumbai India. [2] The weight applied on the tile and corresponding voltage generated is studied and they are found to have linear relation.

It is especially suited for implementation in crowded areas. This can be used in street lighting without use of long power lines. It can also be used as charging ports, lighting of pavement side buildings.

### **III. CLASSIFICATION:**

#### **3.1. Roads and Highways.**

Roads and highways are most working place where traffic remains busy so as more the crowds more will be energy and it may happens that due to high vibration more energy is produced and there is more load of humans on roads and due to that more vibration with heavy loads the energy will be more produced and most common thing is that high and continues energy with good transformer will generate good energy. And its 24 hr. working place and if the 1 km or more place is putted with this device it can create a lot energy that an 800 or more house can be operated on it. [4]

#### **3.2. Power Generating from Footpaths.**

“Footpath” as name suggest the path where just foot are used and that the place where peoples walks safely so at that place to when someone continuously walks for the day than it will create a lot energy that his own laptop mobile and home inverter will be charged. There are some working areas where footpaths remains busy morning 9 tonight 9 such near banks and malls, at that place this device creates huge energy and its good enough to solve major electricity solution for whole worlds and every person’s life becomes easy. [3]

#### **3.3. Power Generating Railway Tracks.**

Railway an huge compartment with the weight of more than 10 tons with long of 80 to 100 meter and the high vibration and if this is used to harvest or make energy than for whole country an whole railway tracks are complete huge generator and this is the way but one time investment system and with its help no limit will be there for energy it’s just said to be an unstoppable creation because railway tracks are always working with trains at every 15 minute a new train arrives on same track. With the help of these mechanism the energy will be huge amount and as we know Indian railway is world’s second largest railways in world and by this devices it will become world’s first and huge energy production in the world.

#### **3.4. Power Generating Airport.**

Airport is said to be some kind of busy area where people are there walking standing sometimes running, and it’s mostly works on international airports such as of Mumbai and Delhi. As we know runaway where all flight land and take-off is the part where vibration are more and also most important is that airports works as an footpath to produce energy with these it will produce energy that can run while airport easily so no extra energy should be needed. To run it and that amount of energy will be saved for government and the public to the world. [5]

#### **3.5. Schools, Colleges, Shopping Malls, Gyms and Dancing Bar.**

Schools, Colleges, shopping mall and Dancing bars, are 12 hour busy place with lot of public and these can be used to run full town just think of it that an all the school of the city and all the shopping malls and colleges and dancing bar than thousands of people will be there that will create a lot energy that a city can work easily. Specially dancing bar because every people will dance there such as jumping and jumping will transfer more energy than walking so it will create also huge energy and although dancing bar remains 24 hour open and these is the best way to create huge amount of energy. So it’s too works for creating energy.

### **IV. ANALYSIS:**

Device, this device is the one which can be used by both dynamo and piezoelectric crystal to so dynamo used as to convert mechanical pressurized energy to the electrical with the help of rotational energy and crystal will give on vibration energy. Dynamo generate the energy as per rotation with high speed and is fixed such as 12 v or 6 v, but the crystal is the thing that will create energy on the base of just frequency of vibration and it will vary from step by step. So crystal can produce from 0.7 v to 20 v of energy and uniting devices will gives huge energy as calculation says it will give by uniting devices same volts and watts of energy that we used in day to day life.

## **V. CONCLUSION & FUTURE WORK:**

The Statement Gives by the one great scientist Albert Einstein is true that “Energy can neither be created nor be destroyed it can be transferred from one form to another”. This is the method to generate electricity from dynamo or piezoelectric crystal is started some of the well-developed countries such as Japan, Israel, Netherlands. And due to its eco-friendly so no tension for global affection or global warming and also it’s an inexpensive way of generating lot energy. And it may happen in future that this method will help to create a lot of energy with eco-friendly.

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