ABSTRACT

Day by day, the population of the country is increasing and the requirement of the power is also increasing in many ways. So, reforming this energy back to usable form is the major solution for future needs. In this Footstep power generation project,power is generated by human's footsteps, so as to charge the battery by storing the power generated with the help of piezo sensors. The power stored in the battery, usedto charge the mobile phones using RFID card. This system is powered by Atmega 328 microcontroller, it consists of Arduino IDE, RFID Sensor, USB Cable and LCD. When power is on in the system, the system enters into the registration mode. Three users can registered. Once all the users entered in the system, then the system asks to swipe the cardand connect the charger. Initially all the user is given 5 minutes of charging time as default. When card is swiped and the user is authorized, the system turns on for charging the Mobile phone within a given time period. Moreover, the installation of FSPG(Foot Step Power generator) systems not only contributes to reducing carbon footprints but also encourages public engagement with renewable energy technologies and promotes physical activity through the act of walking. In essence, FSPG represents a pivotal step towards the realization of smarter, greener cities, fostering a symbiotic relationship between human movement and sustainable energy generation, thus paving the way for a more sustainable and energy-efficient future.