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Advanced Footstep Power Generation using RFID for Charging

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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, used to 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 register. Once all the users entered in the system, then the system asks to swipe the card and 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.*

Keywords: Arduino IDE

REFERENCES

[1] Ghosh, S. Sen, A. Saha, S. Basak, "Electrical Power Generation using foot step for urban area energy Applications", 2013 International Conference on Advances in Computing, Communications and Informatics (ICACCI), 22-25 Aug 2013.
[2] M. Ajmal, W. Sarwar, M. Anum, "Footstep Power Generation using Piezoelectric Sensor", thesis of University of Engineering and Technology Taxila, June 2018.
[3] OECD, "RFID Radio Frequency Identification", OECD Ministerial Meeting on the Future of the Internet Economy, Seoul, Korea, 17-18 June 2008.
[4] M. Bhuptani, S. Moradpur, "RFID Field Guide- Developing Radio Frequency Identification Systems", pp-7-9, 16-225, 160, 231, 2005.
[5] Shi-Cho Cha Kaun-Ju Huang Hsiang-Meng Chang, "An Efficient and Flexible Way to Protect Privacy in RFID Environment with Licences", IEEE International Conference RFID, April 16-17, 2008.
[6] S. Nainan, R. Parekh, T. Shah, "RFID Technology based Attendance Management System", IJCSI International Journal of Computer Science Issues, Vol. 10, Issue 1, No 1, January 2013