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**ABSTRACT**

Solar powered home automation is Arduino Based Home Automation control powered by solar using sun tracking system. Arduino based automation allows objects to be sensed and controlled remotely across existing network infrastructure, creating opportunities for more direct integration of the physical world into wireless controlled systems. While the cost of living is going up, there is a growing focus to involve technology to lower those prices. With this in mind the Home automation project allows the user to build and maintain a house that is smart enough to keep energy levels down while providing more automated appliances. A smart home will take advantage of its environment and allow seamless control whether the user is away from switch board. It results improved efficiency, accuracy and economic benefit in addition to reduced human intervention. The main objective of this project is to build a smart home device which can be used to control the home appliances via mobile application. It gives plenty of advantages for literate physically disabled and old aged people to become independent in using the appliance utilities, without taking help from others.This system proposes design and implementation using solar power with tracking system. The position of PV panel is controlled and monitored by using LDR sensors. Solar Power has been interfaced with microcontroller and other house hold appliances.

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**LIST OF ABBREVIATIONS**

|  |  |
| --- | --- |
| **Sr. No.** | **Abbreviation** |
| PV | Photovoltaic |
| DSM | Demand Side Management |
| SG | Smart Grid |
| PSU | Public Sector Undertaking |
| ICT | Intellegent Communication Technology |

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