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Designation of Smart-Energy Save Light Systems Via Mobile-Based Applications and Devices

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Abstract:

Lights are command sources in our lives at all times and in all places. Alternative sources are vital to increase satisfaction on customer requirements as demand trends. Saving energy is another factor to consider when choosing a lighting system. As a result, this study explains the implementation of a smart lamp with a controlled light system based on Arduino and the use of a mobile application to save energy. A smart bulb is the best approach to save and conserve light by using a remote system to monitor and manage the intensity. This study developed a design for an energy-saving smart light system that works with mobile apps and devices. It is a little prototype that runs on an Arduino board and is entirely automated. The identification of the LDR sensor, PIR sensor, and circuit configuration is the first step in the design. Following that, the Arduino program, mobile application, and gadgets are integrated with hardware and software. Finally, the testing procedure is carried out, and the data is gathered and analyzed. With the scenario as a setup, the complete system has been empirically proven. By monitoring and adjusting light in such a way that it is always an exact match to the real requirement, it is possible to conserve energy and money while also improving human comfort and efficiency.