

科技成果

简易智能家居系统：从想法到实现的创新之旅

班迪·苏卡诺，拉维·库马尔*

(马六甲公教国民型华文小学 马来西亚 马六甲市)

摘 要：本论文介绍了一种简易智能家居系统的设计与实现过程。该系统基于物联网技术，结合传感器和控制器，实现了智能家居的自动化控制功能。通过对系统架构和各模块的详细设计，实现了用户对家居设备的远程监控和控制。在系统实现过程中，采用了多种技术手段对设备进行联网和数据交互。通过对传感器数据的采集和处理，实现了对家居环境的实时监测和智能控制。同时，系统还具备了定时任务和场景模式的功能，为用户提供了个性化的家居体验。在系统测试阶段，验证了系统的稳定性和可靠性，满足了用户对智能家居的基本需求。通过本论文的研究，可为智能家居系统的设计和实现提供一定的参考和借鉴价值。

关键词：智能家居系统；创新之旅；物联网技术；舒适度；便利性

Simple Smart Home System: An Innovative Journey from Idea to Implementation

Abstract: This paper introduces the design and implementation process of a simple intelligent home system. The system is based on the Internet of Things technology, combined with sensors and controllers, to realize the automatic control function of smart home. Through the detailed design of the system architecture and each module, the remote monitoring and control of the home equipment are realized. In the process of system implementation, a variety of technical means are used to make the device network and data interaction. Through the collection and processing of the sensor data, the real-time monitoring and intelligent control of the home environment are realized. At the same time, the system also has the function of timing task and scene mode, providing users with personalized home experience. In the system test stage, the stability and reliability of the system are verified, meeting the basic needs of users for smart home. The research of this paper can provide some reference and reference value for the design and realization of intelligent home system.