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Automated Domesticity: Exploring the Realm of Home Automation Systems

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Abstract: *This research paper presents the development and implementation of a comprehensive smart home automation system comprising a smart switchboard, smart smoke, flame, and gas detector, and a smart door lock system. Leveraging innovative technologies such as voice control, sensor networks, and Bluetooth Low Energy connectivity, the system offers users enhanced convenience, safety, and energy efficiency within residential environments. The smart switchboard enables intuitive voice-controlled operation alongside traditional manual control options, while the smart smoke, flame, and gas detector provide real-time monitoring and alerting capabilities. Additionally, the smart door lock system ensures secure access control through voice password authentication and manual lock and key options. Through this integration, our research demonstrates the transformative potential of smart home automation in revolutionizing household management and enhancing quality of life.*

Keywords: Smart Home Automation, Voice Control, Sensor Networks, Bluetooth Low Energy, Convenience, Safety, Energy Efficiency, Smart Switchboard, Smart Smoke Detector, Flame Detector, Gas Detector, Smart Door Lock System

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