

Build a smart home monitoring and control program.

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Abstract: This study focuses on building an automation system for monitoring and controlling the living environment in a smart home. The practical context demands the development of high-tech solutions to enhance quality of life and energy efficiency. The objective is to design and deploy a system based on the principles of automation, the Internet of Things (IoT), and artificial intelligence (AI). The research methodology combines theory with experimentation to ensure the feasibility of the solution. The expected results provide users with full remote control of the smart home system while contributing to sustainable development.

Keywords: IoT system, Artificial Intelligence (AI), Smart Home, Automation, Renewable Energy