

DESIGNING SMART HOME APPLICATION WITH LIGHTS USING ANDROID-BASED INTERNET OF THINGS CONCEPT

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ABSTRACT

Internet of Things (IoT) provides flexibility to organize objects through the internet network. The Smart Home application is one of the IoT-based ecosystems widely used today. This application allows homeowners to monitor and control objects in the house, such as lights. Some house residents often forget to check the status of the lights in the house and only remember when they are away from home. The habit can lead to wasted energy and higher electricity bills. This study discusses the making of applications for home lighting settings. The application is made to run on the Android operating system platform and has various features such as: scanning the QR code of the lamp, adjusting the color of the lamp, turning off or turning on the lamp remotely, and adjusting the brightness level of the lamp. The function of this application provides benefits for homeowners, including monitoring the status of lights in real-time, avoiding wasted energy, and saving electricity bills. This application also provides homeowners complete control to set the lights' status anytime and anywhere as long as they are connected to the internet.

Keywords: *Smart Home, Controlling house lights, Internet of Things, Android*