

# DESIGNING SMART SWITCH APPLICATION SYSTEM FOR AGED USING MIT APP INVERTOR BASED ON ARDUINO

**Mirza Mohamad Ramadan**

*Electrical Engineering Study Program, Faculty of Information Technology and Electro  
Universitas Teknologi Yogyakarta  
Jl. Ringroad Utara Jombor Sleman Yogyakarta  
E-mail : [mirzamohamadr@gmail.com](mailto:mirzamohamadr@gmail.com)*

## ABSTRAK

*Elderly is a condition of increasing individual age characterized by decreased organ function that occurs due to the aging process. The increased life expectancy (UHH) has a complex impact on the well-being and health of the elderly. The development of science and technology can not be separated from smartphones. Utilization of an android smartphone as a communication tool and a smart phone has experienced a lot of development at this time, such as an electronic device and home security control system that is integrated with microcontroller components and utilizes Bluetooth facilities available on an android smartphone. The use of smartphones in everyday life can be applied to the elderly who often leave their families working outside the home. Elderly often have difficulty using electronic devices at home independently and have to go through help from others. The design of the smart switch application is very appropriate for the elderly when they are alone in their homes. The method used is to do hardware design, electronic design, simulation, system implementation, and application testing. The results obtained in this study are smart switch applications with the name of LansiParam and prototypes of elderly homes. LansiParam has several features such as door locks, emergency alarms, fans, and room lights.*

**Kata kunci :** *Elderly, Smartphone, Microcontroller, Bluetooth, LansiParam*