

## ABSTRACT

*The integration between smartphone and household appliances had created a smart home system. System can control and monitor every status of household electronic appliances automatically. System can also provide newest information status and help residence for using energy efficiently during household electronic appliances used in home.*

*In this research, the author has designed a system a system that integrated with the smartphone Android with the System on Chip Raspberry Pi as a web server through Wi-Fi network. This system can control, monitor, and provide electric power using information on integrated electronic appliances It is expected that this system can anticipate the using of excess electricity energy with the information provided in the system.*

*In this research produced that Raspberry Pi as web server can takes about 0,66533 seconds to process each request from the Android application, and there is a difference communication delay between application and server that were significant due to differences in the performance of each function on the server in the control function takes about 8,445367 seconds, automation function takes about 3,084167 seconds, power limitation function takes about 2,4431 seconds, and power monitor function takes about 1,8989 seconds. The system is fit for use as a smart home power management system.*

*Keywords : Android, Mobile-Device, Power Management System, Smart Home System, web server.*