

ABSTRACT

The Wok-Fi System with an Independent Power Source is an improvement of existing Wi-Fi extenders available on the market and existing wajan bolic (also known as Wok-Fi in English) do-it-yourself tutorials available on the Internet by using currently available wireless networking technologies, by using a 4G broadband/Wi-Fi modem with Wi-Fi extender feature, and a solar panel to ensure the system remains powered on at all times.

The goal of creation of this Final Project is to create and analyze currently existing Wok-Fi systems and to develop improvements on existing Wok-Fi systems.

The hardware developed in the creation of this Final Project uses Wi-Fi technology to capture existing Wi-Fi signals to be broadcasted to other Wi-Fi devices located farther away from target access point. The system is also equipped with a DC-based solar panel connected to a powerbank battery, to ensure the battery power from the 4G Wi-Fi modem is always on.

The outcome of this Final Project is a Wok-Fi System with an Independent Power Source based on renewable resources, latest technologies, and an always-on system.

Keywords: Wi-Fi, Signal, Solar Panels