This project involves data acquisition and visualisation from a simplified dynamic simulation model of an isolated power system using Python Plotly Dashboard. The power system is modelled in discrete time on an ESP32 microcontroller using Arduino C based on the output frequency. An Electronic Load Controller (ELC) is designed to regulate the output frequency for the system using a discrete proportional integral derivative (PID) algorithm also hosted on the ESP32. Data from the model is then transmitted via WiFi to a host computer (Raspberry Pi 4) using Message Queue Telemetry Transport (MQTT) protocol. An interactive dashboard using Plotly Dash is then used to visualise and record the data on the Raspberry Pi computer.