









Raveendran Ramasamy Politeknik Mersing (PMJ)

Objective:

Independent Power Producing Reducing Carbon Footprints Integration with Smart IOT Agriculture Students' Learning Center

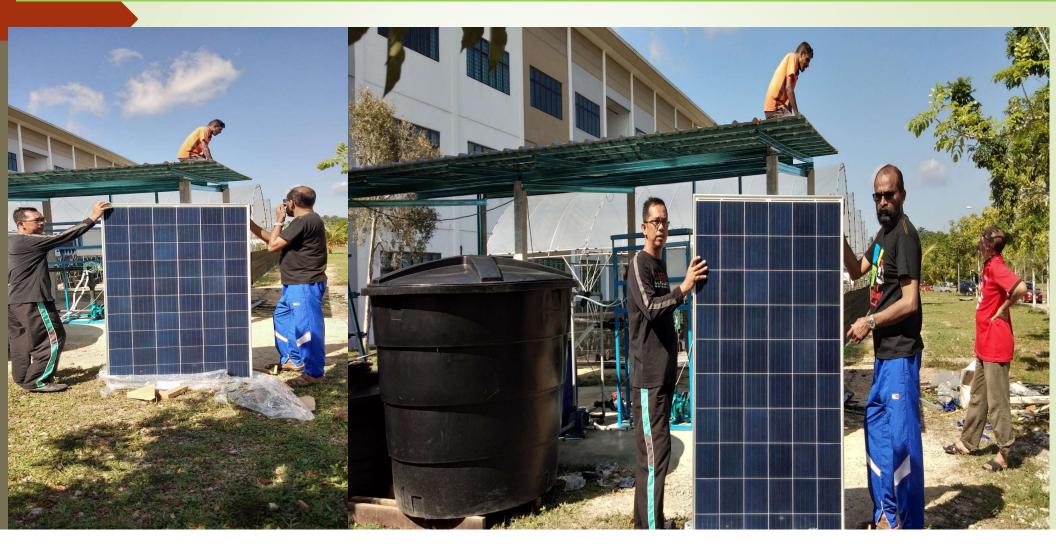
Smart IOT Agriculture
IOT Control System
3 different pumps
Wall fan
Lights
CCTV – recording and monitoring

Solar House

- 4 PVs
- Wall Fan
- Lights
- kWh meter
- Inverter and 4 Battery Packs
- Power Sockets
- DB Box











Solar House For Agro Technology- For Irrigation



Solar House For Agro Technology – For Auto Pesticiding



Solar House For Agro Technology – Rain Harvesting





Solar Panel = 4 Unit (250 Watt) Inverter = 5000 Watt Batery packs = 4 Unit (4 X 12 = 48 Volt/ 150Ah)

Solar Power Usage Index

Total Output = 1000 Watt @ 1Kilowatt Main irrigation Pump = 1.5 Hp Fertilizer Mixer = 2.0 Hp Sprinkler Pump = 1.5 Hp Pesticide Pump= 1.5 Hp LED Lights = 5 Unit (18 Watt) CCTV = 4 Units

Power Usage

- Total Pump Usage = 0.334 Kw per day
- Total LED consumptions = 0.18 Kw per day
- CCTV Systems = 4.32 Kw per day
- Total Consumption per month = 4.834Kw x 30 days
 - = 145.02 Kw
- Total Energy bill saved = 145.02 x 0.218
 - = RM31.61 per month

*Great potential to expand the usage

Sustainable Development Goals



END