



Introduction :

This project is focusing on enhancement of shrimp farm management through an embedment of multiple wireless communication technologies. The technologies of RFID, WSN, mobile application platform and IoT system will be embedded into one platform as an efficient solution for aquaculture quality monitoring (AQM). The proposed wireless system known as "Smart Aquaculture Monitoring with Internet of Things System (SAM-IoT)" is designed to collect data of pH level, dissolve oxygen (DO) and water temperature at shrimp ponds. The proposed active RFID tag will transmit the captured data to its reader which is also designed as an internet gateway. A low power consumption AVR microcontroller will be embed to both of proposed RFID tag and its reader for efficient power management. Fast rectification work regarding water quality of shrimp pond could be deployed through this feature. Therefore, the valuable captured data from this proposed SAM-IoT system can be accessed at anywhere on anytime as long as the internet bandwidth is available.

Project Members :

Leader : Widad Ismail, USM, Malaysia Members:

- USM, Malaysia Harsa Amylia Mat Sakim, Dzati Athiar Ramli, Nur Syazreen Ahmad, Chong Yung Wey
- 2) Kyoto Uni., Japan Naoki Shinohara
- 3) UTM, Malaysia Sevia Mahdaliza Idrus Sutan Nameh, Farid Zubir
- 4) RMUTSV, Thailand Wasana Boonsong
- 5) UNISSULA, Indonesia Suryani Alifah
- 6) MAMPU, Malaysia Kamarul Hafiz Kamaludin
- 7) UTP, Malaysia Toni Anwar, Savita K Sugathan

