

## ABSTRACT

The study comes with the improvement of the previous studies by Aricayos et al. (ECE March 2012) and Bunag et al. (ECE February 2009). Both used PIC microcontrollers to create the system. The researchers in the present study aim to improve Fertigation System, identify compatible sensors for Arduino Platform, develop a program that runs Arduino and Android Application, and determine the functionality of the system by testing and evaluation. The process of the study started first by determining the crop growth, electronic components, and equipment to be used. Next was determining the programming language and compatible sensors then developing a program that could run both the Arduino and Android Application. The functionality of the system was determined by means of tests and evaluation. After finishing, the proponents, in term of technology, showed convenience and improvement to the work on crops done. Monitoring can be anywhere for as long as an internet connection is present.