**Abstract**

To grow a plant in the most efficient way will require the appropriate environment for the plant, including the humidity, light, and temperature. Also, these requirements will be differed for each type of plants, so it is essential for the growers to consider how they should select an area for planting. However, not all people will be able to set an appropriate area of planting due to many issues such as a limited space, or even having less time to take care of the plants. The purpose of this project focused on how to support those people who willing to grow their own plants in the efficient way and in a limited condition. By applying the concepts of Internet of Things (IoT) and the use of sensors leads to the Geek Harvest application in a smartphone, which will provide knowledge as well as act as an observer to monitor the overall conditions of the plants.