An estimated amount of 97% of water on earth is salt water which is found in oceans and seas, leaving the remaining 3% to account for freshwater of which more 2/3 of it is in the form of glaciers and ice caps. It’s then safe to say 0.5% of water on earth is found in the atmosphere or surface level of the earth, with the rest of it underground

Water plays a crucial part in farming without it most farming processes wouldn’t be possible or difficult to perform. Over the years as a result of Global Warming, climate change has reduced the availability of this resource

It is in this light that the agricultural industry has been implored to find efficiently make us of this resource. This has been done by making use of various irrigation methods such as drip irrigation which help reduce water wasting away. This was an evolution from the flood irrigation and the furrow irrigation.

Though limiting water wastage to some extent, the current methods prove to be not so efficient with the water conversation. Technology has helped make strides further towards a much more efficient form of irrigation, through the emergence of various technologies like the internet of things which have adapted to agriculture. An adaptation that proves useful is one that can bring about efficient irrigation done using the smart irrigation systems. Intelligent watering systems make use of actuators and sensors to maintain adequate moisture levels in the land.

To solve the problem surrounding inefficient irrigation and dealing with climate change issues. A system to bring about efficient irrigation was proposed, a system to make use of sensors and actuators to continuously monitor humidity and air temperature as well as soil moisture levels. Data fed to the system will be collected and be collected and then advise the user to either manually irrigate or automatically irrigate based on current data.

The system will be accessible remotely throusgh the use of a mobile app. It’ll make use of multiple sensors and weather application to make sure crops get the required amount of irrigation at the right amounts. Water will also be used efficiently as the adequate amount of water be used thus increasing efficiency.

This report gives a detailed description of the development of the proposed system. This including a volume of literature on the prior technologies that paved the way and inspired the development of the system. An insight to the analysis of the viability of it and the process of building and putting the system to use.