

SMART ASSISTANCE SYSTEM FOR HIGH YIELD OF SEASONAL CROPS

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ABSTRACT

In this project we are describing a wide scope of animal varieties which can be shown as an spread yields amid neglected periods to be given different biological community administrations. The Plant foundation are the key stage, particularly while sowing happens in the summer with which the soil temperatures are high and low water accessibility. The point of that investigation which was to be decided the reaction of germination to the temperature and the water potential for which it differs into spread harvest species. In light of these qualities, we created differentiating utilitarian bunches that gather species with a similar germination capacity, which might be helpful to adjust species decision to climatic sowing conditions.

Keywords: *cell wall of storage polysaccharides; flood due to tolerance; seed germination in the water.*

INTRODUCTION

Mostly human beings rely on mixed seasonal farming wherein the germination circumstance of seeds relies upon diverse parameters which include soil and atmospheric situation. Because of variations in atmospheric situations, the soil circumstance periodically adjustments thus indicating losses due to mistaken yield or loss in increase of harvested seeds. There are methodologies in testing of soil, one is through physical and every other is via chemical approach. Earlier, to test the physical conditions of soil, people had to approach the soil testing laboratory and the lab could take few days to supply the general consequences of the soil situation. To overcome those issues, this paintings is to check the conditions of soil with goals:

1. Measuring of soil temperature and soil moisture degree.
2. Measuring the impact of atmospheric humidity and temperature on soil.
3. Measuring of soil pH stage.

By measuring and monitoring the above parameters, which depicts the bodily situations of soil, for this reason being privy to which seed is ideal for harvesting to get excessive yield and coffee loss in growth of plants.

RELATED WORK

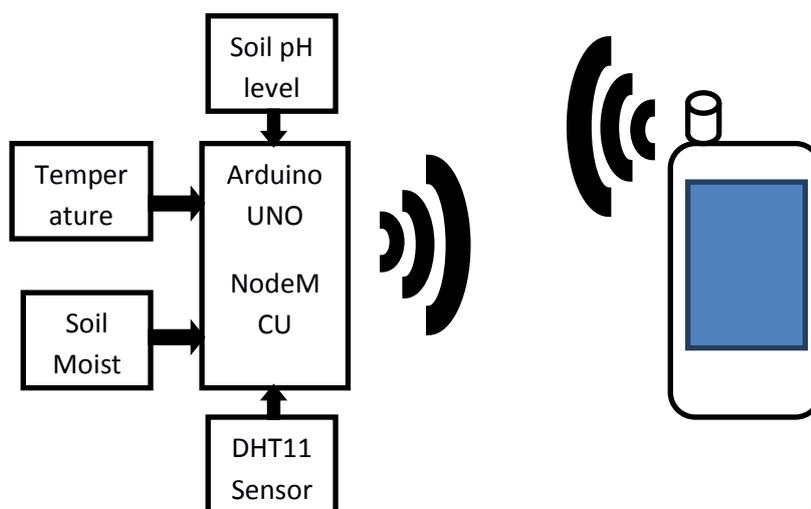
- 1) The project that we are describing a wide scope of animal varieties which can be shown as an spread yields amid neglected periods to be given different biological community administrations. The Plant foundation are the key stages, particularly while sowing happens in the summer with which it differs in high soil temperatures and low water accessibility. This point of investigation was to decided in the

reaction of germination to the temperature and water potential which is differing in the spread harvest species. Where the light of these qualities we created for differentiating the utilitarian bunches that which it gather species with a similar germination of capacity, which might helps to adjust species in taking decision to climatic sowing of conditions. The Germination of 36 distinct species from six organic families was estimated into the research center at an eight temperatures degrees extending from 4.5 to 43°C degrees at four water possibilities. Thus, last germination rates, germination rate, cardinal temperatures, base temperature and also the base water potential were determined for every species. Where the ideal temperatures are shifted from 21.3 to 37.2°C degrees, at the greatest temperatures which the species could be develop shifted from 27.7 to 43.0°C degrees and base water possibilities can be changed from - 0.1 to to 2.6 meter/Pascal. Therefore Most of the spread yields were adjusted to summer sowing which with a moderately high in mean ideal temperature for an germination.

PROPOSED WORK

This work is proposed to layout a system that is used to test the physical situations of soil using sensor community, temperature, soil moisture, atmospheric humidity and its pH degree. Arduino board is used for interfacing to diverse hardware components. The modern layout is a microcontroller utility, so that you can continuously monitor the soil and atmospheric situations on call for. For doing so an Arduino board is interfaced, which includes the Atmel AVR microcontroller to different hardware components through the analog and digital ports present on the Arduino board. And the output of each sensor might be seen through the SERIAL MONITOR window in Arduino IDE.

BLOCK DIAGRAM



CONCLUSION

The work titled “Monitoring seed germination conditions” is a model to explain the statistics acquisition of present soil situations in addition to gift atmospheric condition, the usage of the Arduino board and Arduino IDE. The monitoring of situations of soil as well as atmospheric situations is rather efficient in regions which tremendously depend upon agricultural fields to get excessive yield and negligible loss in boom of crops. The device can be used everywhere and to any kind of soil endeavoring the real time functionality and choicest output. The device has many benefits like it is a low-price device, flexible, easy to alternate the program code, easy to hold to other locations and different green aspects.

REFERENCES

- [1] Forkel, M., K. Thonicke, C. Beer, et al. 2012. Extreme fire events are related to previous-year surface moisture conditions in permafrost-underlain larch forests of Siberia. Environmental Research Letters 7: 044021.
- [2] K.Lakshmi*, S.Gayathri. 2017. Journal of Scientific and Innovative Research. 6(2): 80-83.