Patent Search

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Abstract:

ABSTRACT IOT BASED GREENHOUSE HYDROPONICS SYSTEM FOR SPEED GERMINATION OF ECHINACEA PURPUREA SEED Aspects of present disclosure relate to an IoT greenhouse hydroponic system (100) for medicinal Echinacea purpurea seed speed germination. The IoT based greenhouse hydroponic system (100) comprises of at flexible solar panel (101); an A.C. inverter (102) with atleast one battery (103); a plurality of sensors (104); a temperature blower (105); a digital temperature controller microcontroller (107) for real-time monitoring and IoT control of the greenhouse. The current invention is focused on state-of-the-art IoT-based greenhouse farming a such as monitoring, controlling predicting, tracking, and sensing. Advantageously, the system is properly designed to provide control as well as to maintain solar radia temperature, humidity, and carbon dioxide levels inside the hydroponic greenhouse. (Figure 1 is the reference figure.)

Complete Specification

Description:IOT BASED GREENHOUSE HYDROPONICS SYSTEM FOR SPEED GERMINATION OF ECHINACEA PURPUREA SEED

FIELD OF INVENTION

[0001] The present disclosure relates to hydroponic systems, and particularly relates to an Internet of Things (IoT) based greenhouse hydroponic system for medi Echinacea purpurea seed speed germination.

BACKGROUND

[0002] Background description includes information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[0003] Hydroponics is the technique of growing plants using a water-based nutrient solution rather than soil, and can include an aggregate substrate, or growing such as vermiculite, coconut coir, or perlite. Hydroponic production systems are used by small farmers, hobbyists, and commercial enterprises.

[0004] Echinacea purpurea (Asteraceae) is a perennial medicinal herb with important immunostimulatory and anti-inflammatory properties. The normal environn conditionings of Echinacea Purpurea take more than 25 to 30 days for breeding and maintain the ideal soil temperature is about 68°F, and the soil should be relativ moist. Hydroponics uses less water than traditional soil-based systems. Hydroponic growing allows for faster growth and higher yields than traditional soil-based gr systems. Hydroponics can be utilized for growing Echinacea purpurea.

[0005] Therefore, the present disclosure provides an IoT based greenhouse hydroponic system for medicinal Echinacea purpurea seed speed germination that pr

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