

**Abstract**

Acacia plant is a pulp and paper producing plant that is often used as a paper making material. The cultivation of acacia plants used today still uses manual methods that can slow down the breeding process of the acacia plants themselves. With the Tube Nursery system the implementation of acacia breeding can be accelerated. Tube Nursery itself is an acacia nursery tube made to help the production of plant seeds, especially acacia plants. The creation of this Tube Nursery system uses an Arduino data controller and processor which arduino will control the Servo Motor to charge the ground into the polybag. In order to give the amount of soil between polybags equal, this system uses a Load Cell as a weight sensor that will calculate the weight of each polybag that has been filled the ground automatically. The speed of filling the soil and seedlings into the polybag uses the Fuzzy Logic method that will accelerate the production of polybags containing acacia plant seeds and soil compared to manual means. From the results of the test tool obtained that filling the soil and seedlings into polybags/pot takes about 5 seconds per polybag/pot. So that the creation of arduino-based Tube Nursery system using fuzzy logic method is expected to help the process of breeding acacia plants.

**Keywords:** *Tube Nursery, Arduino, Load Cell, Motor Servo, Fuzzy Logic*

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