

AUTOMATIC SERICULTURE MONITORING USING IMAGE PROCESSING

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ABSTRACT:

Sericulture is the science that manages creation of silk by rising of silkworm. Creating silk is a protracted, complex process. Silkworm is perhaps the most significant domesticated insects, which produces silk string in type of cover by consuming leaves during larval period. The occasional differences in the natural parts extensively influence yield of silkworm harvest, for example, case weight, shell weight, and cocoon shell proportion. Sericulture industry consolidates the quality of both agriculture and industry. If the leaf is influenced by infection, image securing is finished by OPENCV which is discovered utilizing pixel concealing and division. Tainted leaf is moved into the garbage plate and solid leaf is gathered in the natural plate. On the off chance that the container is full, the IR sensor senses the phase of plate and turned off the engine. This will help the rancher in sericulture.

Keywords: Raspberry pi 3+, camera, Servo motor (TowerPro SG-90), IR sensor, Relay module.

I. INTRODUCTION

Horticulture is the foundation of India. These days, ranchers are dealing with numerous financial issues. Thus, there is an answer for our ranchers to emerge from their monetary emergency. Sericulture is perhaps the most ideal approach to bring in more cash and it can give independent work and profitable returns. India positions second worldwide in the silk creation market, as indicated by the focal silk board report. On the contrary hand, just 15% of overall silk creation is contributed by India when contrasted with China, which produces 85% of silk. Silkworms are brought up in request to deliver silk in sericulture. Silkworms are sustained for the readiness of silk in sericulture. Silk creation is very tedious, requires a ton of devotion and furthermore a troublesome cycle. Silkworm is viewed as quite possibly the most significant house-trained animals that gather dynamic cover formed silk-fiber by ingesting mulberry leaves during the underlying larval stage. The key factor which can be distinguished for an enormous distinction is the absence of automation in the sericulture division. The occasional changes likewise influence the casing and shell load proportion as casing consistency. In this manner, the silk quality is influenced in the silkworm raising house because of the natural change. To expand the quality and creation of silk string, this paper proposes the utilization of computerization in sericulture. Exploration shows that the components have a significant task to carry out inside the silk rearing.

II. EXISTING SYSTEM

In existing system, the silkworms are burning-through parcels of unfortunate leaves in inappropriate way and measure of leaves isn't checked. Also, the silkworms are filled in ill-advised climate. Consequently, it prompts the lesser efficiency of the covers. Accordingly, creating second-quality silk and little length silks.

III. PROPOSED METHOD

We should take care of the silkworms required measure of food. The nature of the leaves is checked prior to taking care of the silkworms. The measures of leaves are checked by Raspberry Pi utilizing picture handling.