

Videogrammetry application for stereo vision Bio-Production Harvester.

Abstract

This study discusses the application of Videogrammetry technique and to define its capability for applying into bio-production arm in real cocoa plant environment. The testing was performed under laboratory control environment and dummy target point also was established to collect the actual data. The result was divided into two-application categories. It is to determine the system capability to generate 3-axis coordinate (3D) target point from robot base and the accuracy of the robot arm to grab the target using mouse click method. The developed Graphical User Interface (GUI) successfully generates 3D of the targeted fruits and sends the electrical signal through interface card for moving the robot arm and grabbing the selected target automatically.

Keyword: Videogrammetry technique; Stereo vision; Crop harvester; Camera vision; RGB; Hue; Simulation.