

Robotic and Automation in Agriculture

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The research involves development of intelligent Bio production Robot to be used in agricultural practices. The robot designed is based on the principles of robotic technology with artificial intelligence, electronic sensing, remote data acquisition system, inter-robot communication and Automated guided vehicle (AGV).



The concept of automated guided vehicle is applied to the tractor. The tractor supplies the hydraulic power requirement for the robot arm and also acts as a travelling device for the robot. The movement of the robot and the tractor is controlled through wireless radio modem, remote data acquisition and computer system. A camera connected to computer system acts as the vision system for the robot to handle the real time image transfer. The “robot eye” of the agriculture robot predicts the actual distance of the object target. Stereo pair of *videogrammetry* technique and triangulation takes the distance measurement of object target. By “clicking” the image displayed on user interface, the “eye of robot” using D-EYE digital camera to coordinate measurement displays the scene covered on developed user interface created using Visual Basic V6.

Reader Enquiry

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