

ABSTRACT

Title : *"Build a Watering Monitoring Application Plants Automatically Use IoT Technology in Orange Fruit Plants "*
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Industry 4.0 replaces industry 3.0 which is characterized by cyber physical and manufacturing collaboration. The term industry 4.0 comes from a project initiated by the German government to promote computerization of manufacturing. Industry 4.0 was marked by an increase in digitalization of manufacturing driven by four factors: increased volume, analytical capabilities and artificial intelligence, the relationship of interaction between humans and machines, digital transfers to the physical world. the basic principle of industry 4.0 is the incorporation of machines, workflows, and systems, by implementing intelligent networks along the chain and production processes to control each other independently. A tool that is easily recognized by the internet and connected to the internet at any time known as the Internet of Things (IoT). Briefly IoT is arguably where objects around can communicate with each other through internet networks. Orange plants are annual fruit plants originating from Asia. Citrus plants in Indonesia are inherited from the Dutch who brought sweet oranges and tangerines from America and Italy. Based on the results of interviews between farmers and authors, information was obtained about the constraints of the agricultural process, in terms of irrigation.

Therefore, based on the description above, the research will be carried out with the title "Designing Application for Automatic Plant Watering Monitoring Using IoT Technology in Orange Fruit Plants".

Keywords: *IoT, Orange, Fruit, Industrin 4.0, Interview*