

ABSTRACT

Developments have occurred in all sectors, including the industrial sector that has taken the industrial era 4.0, where the entire manufacturing system is interconnected due to the integration of information communication technology (ICT), internet of things (IoT), and cyber-physical systems. On this occasion, Telkom University welcomed this development through a bottling plant machine that utilizes Human Machine Interface (HMI) components to control and monitor it. Unfortunately, to be able to operate it, operators or users must use buttons embedded in the bottling plant which tend to experience a decrease in performance. Not only that, the existing bottling plant is also not yet able to store and record databases. This research contains the design of a human-machine interface (HMI) at a drinking water filling workstation using the waterfall method which is considered effective to be able to solve these obstacles with the development of a structured and sequential system. This research is expected to improve the efficiency and safety of the production process by providing an easy-to-use interface for workstation operators. On that basis, the result of this study is the design of a human-machine interface on the filling station using the waterfall method.

Keywords: Industry 4.0, Human-Machine Interface (HMI), waterfall method.