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Project Report

Production Process Automation System

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Declaration

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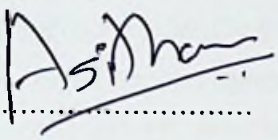

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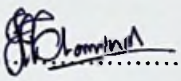

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Abstract

The word Automation is not an innovative product for this rapidly changing society. It is one of the extracted solutions from Information Technology which saves time, money and increases the productivity, accuracy and the quality as well. This project applies these information technology solutions to automating manual workflows occurring in organizations by improving productivity in these work processes. Production Process Automation System is one of the industrial automation products. This project report demonstrates how to analyze, design and implement a software solution for workflow automation. The analysis involves identifying the information system requirements of the organization and design involves the design of a system to meet these requirements. All over the businesses in world focus to make more profit within their enterprise.

Development was done by following the three tier architecture and it implemented on a domain based network infrastructure. System was designed to handles minimum 50 concurrent users at the same time. In order to eliminate the issues with concurrent access, MS SQL Server 2008 is used as the backend and all the test data stores in a centralized database. In addition to the calibration system, it has integrated with some other systems which makes smother the production. Throughout the project, it conducts as iterations, where the system introduced to the customer in several versions. Each iteration had a delivery and continued the development with the customer feedback. Therefore it would say, the development has deviated from the waterfall model to iterative model.

Over the years in Flintec, shows how the manual process has effected to the quality and efficiency of the manufacturing process. It was identified there are number of gaps needed to be filled to achieve a quality product efficiently. User depended process can always being modified according to the personnel attitudes and capabilities as well as the process can be different according to the person who does it. So there was a requirement to introduce a common, high accurate and efficiency system to the manufacturing process in order to manipulate the existing issues.

After the compilation of the automation system, it has been increased up to 40% of production and 50% of human heads reduction. This is really helpful to make profit in the organization with cost effective and reduce operational cost. As well as there is a huge drop in customer returns and bad comments on the product when compare with the last few years.