BSc (Hons) Information Systems with Business Management

Final Project Report

Predictive Machine Maintenance and Management System

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Abstract

Today, with industries very much focused on the bottom line, the cost of downtime has a big impact on profitability. The continuous machine failures not only affect the productivity but also the product quality. World-class companies already have taken necessary actions against this issue. Rather than "Fail and Fix" - reactive maintenance, companies have moved to "Predict and Prevent" maintenance.

Maintenance is an essential factor in apparel industry and should be given priority in order to continue the operations smoothly.

This project addresses an existing problem in a well-known apparel organization in Sri Lanka related to increase in machine down time, using predictive maintenance techniques. It was identified that problems such as inefficient maintenance management processes, lack of knowledge of employees, issues in the routine maintenance processes and poor reporting has impacted the increase in downtime of this company.

Therefore, a business solution along with a IS solution is developed through this project in order to address the above stated dilemma. These were designed researching and analyzing a large number of literature as well as a wider range of industrial survey. Both the business solution and the IT solution were evaluated and highly rated in terms of the coverage and the usability.