Strategic Maintenance Development focusing on use of Condition Based Maintenance in Manufacturing Industry

In order to stay competitive, manufacturing companies need to continuously increase the effectiveness and efficiency of their production processes. Further, by introducing lean manufacturing the concern about equipment availability is increased and so, the demand for effective maintenance. The concept of maintenance has evolved over the last few decades from a corrective attitude (maintenance intervention after a failure), to a predictive attitude (maintenance intervention fixed to prevent the fault). Strategies and concepts such as Condition Based Maintenance (CBM) have thus evolved to support this ideal situation. CBM is a set of maintenance actions based on real-time or near real-time assessment of equipment condition, which is obtained from embedded sensors and/or external tests and measurements taken by portable equipment and/or subjective condition monitoring. CBM is becoming recognized as the most efficient strategy for carrying out maintenance in a wide variety of industries.

Objectives
• Study how to implement and develop an effective and efficient CBM-strategy in manufacturing industry

Current status
• Analyzing the overall maintenance management to illustrate how to formulate a maintenance strategy
• Cost effectiveness analysis of implementing CBM in manufacturing industry
• An introductory review of applied CBM-practices in manufacturing industry
• Proposing a CBM-implementation process in manufacturing industry

Planned activities
• Presenting licentiate thesis, September 2015
• Follow a pilot project to implement and develop CBM at Volvo
• Study effective use of CBM in manufacturing industry

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