

UNIVERSITI TEKNOLOGI MARA

**FAILURE MODE AND EFFECTS
ANALYSIS IN MANUFACTURING
OF MILLING PROCESS**

MOHD ASLAM BIN MOHD AZAHA

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ABSTRACT

The Failure Mode and Effect Analysis (FMEA) is a technique for detecting and preventing product and process problems before they occur. FMEA are used to reduce defects, increase safety and increase customer satisfaction. FMEA are commonly utilised during the product design or process development stages, they can also be used to improve the advantages of existing goods and processes. Failure Mode and Effect Analysis is technique for ensuring that potential problems are detected and addressed throughout the product and process development cycle. It is necessary to assess the process before adopting and operating the machine. This research investigates the failure mode and effect analysis of the End Milling process. A variety of end milling processes are done on numerous work pieces and likely failure and flaws in the work piece and tool investigated. The FMEA approach is used categorize them with risk priority numbers assigned to each and occurrence, severity and detection ratings are multiplied. Finally, using RPN for the most dangerous failure selected and the reasons and effects, as well as preventive measures, are listed. This work is intended to serve as failure prevention guide for those who do end milling operations in order to obtain successful result in process of milling

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