Mechanical & Industrial Engineering
UNIVERSITY OF TORONTO

Thesis Projects (MIE498 H/Y) 2018–2019

Title/Topic: Application of SPC and DE in Automotive Industry

Description:

The objective of this thesis is to study to what extent the SPC tools and DE have been applied in the automotive industry for the statistical process control and for the process and quality improvement.

In the first phase of the thesis development, a thorough literature review will be done focusing mainly on the case studies dealing with the SPC implementation and application of DE in the automotive industry.

Two interesting case studies will be selected for a detailed study and analysis. Quality data will be analyzed using SPC and DE, focusing on achieving process stability and improving process capability. Minitab software will be used for data analysis.

The project is suitable for one or several Industrial Engineering or Mechanical Manufacturing students (UG thesis group project) who performed well in MIE364S.

Note: *In addition to the listed topic, topics in the areas of process/quality control and improvement, maintenance, reliability, production and inventory control, including theoretical problems in the stochastic OR area or engineering statistics for students considering graduate studies are possible. Interested students should contact Prof. Makis.*

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