

## **Process simulation modelling and improvement on energy consumptions efficiency**

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### **ABSTRACT**

As the cost of energy rises, the need for analysis of energy consumption in the manufacturing industry is demanding. Predicting energy consumption is an increasingly important topic for companies aspiring to control their manufacturing system. As the energy consumption of machines is not constant over the production time due to the dynamic state of the process and the machines, discrete event simulation (DES) using Technomatix simulation is one of the strategies to understand the behaviour of the system. This work deals with process simulation modelling at one of the industries in Malaysia on energy consumption efficiency. It was shown that using the simulation modelling, the bottleneck stations were identified and the critical stations with high energy consumptions were observed for further actions.

### **KEYWORDS**

Energy consumption; Simulation modelling; Process simulation; Energy improvement

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