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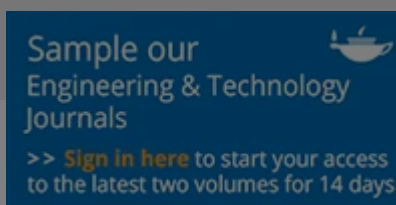
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# Economic production order quantity and quality

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## Abstract

The purpose of this study is to integrate a conventional production-inventory management approach and a process-quality design approach so as to promote quality and reduce cost. The study is conducted using a simulation-based approach. The results show that the proposed system is conducive to reducing the total cost for production and inventory. The loss of quality is also reduced. The failure rate is generated by the process in the system is also reduced. The tolerance of the system is also improved. The results show that the proposed system is conducive to reducing the total cost for production and inventory. The loss of quality is also reduced. The failure rate is generated by the process in the system is also reduced. The tolerance of the system is also improved.

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simultaneously to minimise the average total cost for a cycle time. An example is presented to demonstrate the proposed approach.

Keywords: initial setting process tolerance production order quantity quality cost deterioration process optimisation

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