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Original Articles

Economic production order quantity and quality

Angus Jeang

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Abstra

The purp y manage mote quality and redu ingle system is con s of prod ed as a total cost for t for producti g from the loss of p st and a failure c rrying costs generate determining the proc quality loss in the system. The decision variables include the initial setting (process mean), process

tolerance, and production order quantity. These variables need to be determined 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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An optimal production run for an imperfect production process with allowable shortages and time-varying fraction defective rate
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