

## An Advanced Match-Up Scheduling Under Single Machine Breakdown

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**Abstract :** When a machine breakdown forces a Modified Flow Shop (MFS) out of the prescribed state, the proposed strategy reschedules part of the initial schedule to match up with the preschedule at some point. The objective is to create a new schedule that is consistent with the other production planning decisions like material flow, tooling and purchasing by utilizing the time critical decision making concept. We propose a new rescheduling strategy and a match-up point determination procedure through a feedback mechanism to increase both the schedule quality and stability. The proposed approach is compared with alternative reactive scheduling methods under different experimental settings.

**Keywords :** advanced critical task methods modified flow shop (MFS), Manufacturing, experiment, determination

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