The Hong Kong Polytechnic University
Department of Applied Mathematics

Seminar
On

Stochastic Scheduling Subject to Preemptive-repeat Breakdowns with Incomplete Information

by

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Abstract

We address a stochastic scheduling problem subject to preemptive-repeat machine breakdowns with incomplete information on the probability distributions of random processing times and machine up/downtimes. We first investigate the probabilistic characteristics of the model in such settings, and then apply the results to derive the optimal static and dynamic policies for a large class of performance measures. Under proper conditions, the optimal dynamic policies can be determined by one-step reward rates. Finally, we show that two important preemptive-repeat models in the previous literature are in fact two extreme cases of our model.

Date   : **20 September, 2007 (Thursday)**

Time   : **4:30 – 5:30 p.m.**

Venue : **Departmental Conference Room HJ610**
           The Hong Kong Polytechnic University

* * * ALL ARE WELCOME * * *