Contents

Section I: Factory Design

Dilemmas in factory design: paradox and paradigm
*J. MacGregor Smith* .................................................. 3

Section II: Unreliable Production Lines

Lean buffering in serial production lines with non-exponential machines
*Emre Enginarlar, Jingshan Li* and *Semyon M. Meerkov* ......................... 29

Analysis of flow lines with Cox-2-distributed processing times and limited buffer capacity
*Stefan Helber* ................................................................ 55

Performance evaluation of production lines with finite buffer capacity producing two different products
*M. Colledani, A. Matta* and *T. Tolio* ........................................ 77

Automated flow lines with shared buffer
*A. Matta, M. Runchina* and *T. Tolio* ........................................ 99

Integrated quality and quantity modeling of a production line
*Jongyoon Kim* and *Stanley B. Gershwin* ..................................... 121

Stochastic cyclic flow lines with blocking: Markovian models
*Young-Doo Lee* and *Tae-Eog Lee* ........................................ 149

Section III: Queueing Network Models of Manufacturing Systems

Performance analysis of multi-server tandem queues with finite buffers and blocking
*Marcel van Vuuren, Ivo J. B. F. Adan* and *Simone A. E. Resing-Sassen* .... 169

An analytical method for the performance evaluation of echelon kanban control systems
*Stelios Koukoumialos* and *George Liberopoulos* ......................... 193
Closed loop two-echelon repairable item systems
L. Spanjers, J.C.W. van Ommeren and W.H.M. Zijm ........................... 223

A heuristic to control integrated multi-product multi-machine
production-inventory systems with job shop routings and stochastic arrival,
set-up and processing times
P.L.M. van Nyen, J.W.M. Bertrand, H.P.G. van Ooijen and N.J. Vandaele ... 253

Performance analysis of parallel identical machines
with a generalized shortest queue arrival mechanism
G. J. Van Houtum, I. J. B. E. Adan, J. Wessels and W. H. M. Zijm ............... 289

A review and comparison
of hybrid and pull-type production control strategies
John Geraghty and Cathal Heavey ............................................. 307

Section IV: Stochastic Production Planning and Assembly

Planning order releases for an assembly system
with random operation times
Sven Axsäter ................................................................. 333

A multiperiod stochastic production planning
and sourcing problem with service level constraints
İşıl Yıldırım, Barış Tan and Fikri Karaasmen .................................... 345
Stochastic Modeling of Manufacturing Systems
Advances in Design, Performance Evaluation, and Control Issues
Liberopoulos, G.; Papadopoulos, C.T.; Tan, B.; Smith, J.M.; Gershwin, S.B. (Eds.)
2006, X, 363 p., Hardcover
ISBN: 978-3-540-26579-5