

# Production Management: Methods and Studies

*Edited by*

Benjamin LEV

*Professor and Chairman  
Department of Management  
School of Business Administration  
Temple University  
Philadelphia, PA  
USA*

TECHNISCHE HOCHSCHULE DARMSTADT	
Fachbereich 1	
<u>Gesamtbibliothek</u>	
<u>Betriebswirtschaftslehre</u>	
Inventar-Nr. :	38.066
Abstell-Nr. :	A.14/1151
Sachgebiete :	1.6.9.1.1



1986

NORTH-HOLLAND  
AMSTERDAM • NEW YORK • OXFORD • TOKYO

## TABLE OF CONTENTS

Introduction		
Benjamin Lev		vii
List of Contributors		xiii
INVENTORY		
1. "A Practical Consideration In Determining Economic Packaging Frequency of Jointly Replenished Items"		
S.K. Goyal		3
2. "A Short-Term Fuel Purchasing and Inventory Model For Electric Utilities"		
Ira H. Shavel, C. Hoff Stauffer, Jr. and Gary W. Vicinus		15
3. "Determining An Optimal Inventory Ordering Policy With Two Different Sized Packages"		
Shaul P. Ladany and Marvin Hersh		31
4. "Some New Planning Horizon Results In Inventory Management"		
Jean B. Lasserre, C. Bes and Francois Roubellat		39
FLEXIBLE MANUFACTURING AND SCHEDULING		
5. "International Manufacturing Strategies and Computer Integrated Manufacturing (CIM): A Review of the Emerging Interactive Effects"		
Daniel L. Orne and Leo E. Hanifin		61
6. "Consequences of Programmable Automation for French and American Automobile Factories: An International Case Study"		
Donald Gerwin and Jean-Claude Tarondeau		85
7. "Optimal Design of a Flexible Batch Processing System Using Mixed Binary Nonlinear Programming"		
M. Zafer Yakin		99
8. "Scheduling Models for Combining and Splitting Lots"		
Behnam Pourbabai		113
COMPUTER APPLICATIONS AND SIMULATION		
9. "Automatic Data Capture in the Electronics Assembly Industry"		
John Gibbons and Jim Browne		125

10. "Heuristic Scheduling for a Regional Travel Problem"		
Benjamin Lev and Eugene Kwatny		139
11. "Optimization of the Waferboard Production Process"		
T.I.J. Grabowski, T.E. Daniel and C.T.L. Janssen		151
12. "An MRP/Job Shop Stochastic Simulation Model"		
Paul G. Marlin		163
 THEORETICAL DEVELOPMENTS - ALGORITHMS		
13. "Expert Systems In Production Management"		
Daniel E. O'Leary		175
14. "The Optimal Acquisition of New Technology and Its Impact on Dynamic Pricing Policies"		
Cheryl Gaimon		187
15. "Integrative Approach For Production Scheduling and Capacity Determination"		
L. Joseph Thomas and Elliott N. Weiss		207
16. "Evaluating Scrap Allowance Decision Rules"		
David W. Pentico		231
List of Referees		247