

TABLE OF CONTENTS

Foreword	v
Opening Remarks	vii
International Program Committee	ix
Section A: Conceptual Data Models	
A Conceptual Model for Product-Types and Bills-of-Material: Application of a Set-Theoretic Approach E.O. de Brock, F. Remmen, and J.C. Wortmann	3
Towards the Automated Design of Database Systems: Application to Production Management A.L.D. Murr, J.M.V. de Castilho, C.S. dos Santos, and C. Walter	31
Deductive Conceptual Modelling of Systems Using Prolog D. Costal, J.A. Pastor, and M.R. Sancho	41
An Entity-Relationship Model for Computer-Aided Production Management A. El Youssefi, M. Rhorab, S. Taghboulit, and R. Soenen	59
Geometry of Production Management Databases P. Falster	77
Section B: Distributed Databases	
Conceptual Integration of Distributed PMS Databases H.J. Pels	91
On Distribution of Domain Knowledge in a Hierarchical Production Management System J.E. Hynynen	109
Section C: Knowledge Databases and CIM	
The Intelligent Database Design Environment (IDDE) for the Design and Implementation of CIM Information Systems Ming Wang and G.W. Smith	123
From Database Systems to Information Management Systems – A Requirement for Computer Integrated Manufacturing and Assembly D.M. Weber and C.L. Moodie	141

A Hybrid Data Model for Integrated Manufacturing Environments L. Mohan and R.L. Kashyap	167
Database Structures for CIM C. Helfrich	187
Section D: Production Planning and Control	
Integrated System of MRP II Matrix-Based Hierarchical Planning: Its Computerized Implantation F.C. Lario Esteban and E. Vicens Salort	203
A Database for the Control of Stocks When Using GT and Single Cycle Ordering J.L. Burbidge	237
Hypertext – A New Data Base Approach for Production Management Systems E. Eloranta, A.-P. Hameri, and H. Pennanen	253
Computer Assisted Planning and Scheduling: Artemisa J. Bautista and F. Angas	263
Graphical System in CIM Interactive Tools for User Interface Design C. Tahon, J. Wang, and R. Soenen	271
Section E: Databases for Simulation	
A Database to Support the Design of Automated Production Systems T. O'Donnell, K. Tierney, and J. Browne	285
Using Abstraction Mechanisms in FMS Simulation P. van der Weerd and H. Stienen	311
A Data-Base for Computer Simulators of Production Systems E. Radosinski and L. Szczurowski	325
ISATIS: An Editor-Simulator of Manufacturing Systems Using Timed Coloured Petri Nets B. Descotes-Genon, F. Hemon, and R. Mercier des Rochettes	333
Section F: Closing Forum	
Round Table: Data Bases and P.M.S. – The Future G. Doumeingts (Chairman)	351