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Titolo	Information Management in Computer Integrated Manufacturing [[electronic resource]] : A Comprehensive Guide to State-of-the-Art CIM Solutions / / edited by Heimo H. Adelsberger, Jiri Lazansky, Vladimir Marik
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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 973
Disciplina	670/.285
Soggetti	Manufactures Database management Computer-aided engineering Artificial intelligence Information technology Business—Data processing Engineering economics Engineering economy Manufacturing, Machines, Tools, Processes Database Management Computer-Aided Engineering (CAD, CAE) and Design Artificial Intelligence IT in Business Engineering Economics, Organization, Logistics, Marketing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Introductory overview -- Shortcomings and extensions of relational DBMS -- Evaluation of object-oriented database systems -- Active object-oriented database systems for CIM applications -- Databridge between RDBMS and OODBMS -- Database requirements of CIM applications -- Planning and scheduling -- Operational research models and methods in CIM -- Production planning and control

systems — State of the art and new directions -- Simulation — A tool for developing advanced production strategies -- Dynamic modeling of CIM systems -- Fuzzy modeling and control -- Foundations of computer communications -- Information Management and Information Systems Planning -- Overview of function modelling — IDEFO -- Data modeling with IDEF1X -- Automatic programming in CIM based on intelligent tools -- Model based decision support systems -- Man — Machine interface for CIM -- Designing for evolutionary systems -- Active subsystems for CIM environments -- CAD systems: trends and developments -- Concurrent engineering -- Groupwork in the shop-floor-area needs decentral CIM-structures and components -- Does CIM need AI? -- Multi-agent-systems — A natural trend in CIM -- Production scheduling and genetic algorithms -- Implementation of systems with declarative constraints -- Qualitative reasoning and CIM -- Comparison and analysis of selected CIM-laboratory concepts and their importance for the improvement of staff training -- The use of the active database SIMON for a short term production planning system in the automotive industry.

Sommario/riassunto

This book presents a modern and attractive approach to computer integrated manufacturing (CIM) by stressing the crucial role of information management aspects. The 31 contributions contained constitute the final report on the EC Project TEMPUS No. 2609 aimed at establishing a new curriculum and regular education in the new field of information management in CIM at European universities. Much attention was paid to the style of writing and coverage of the important issues. Thus the book is particularly suited as a text for students and young scientists approaching CIM from different directions; at the same time, it is a comprehensive guide for industrial engineers in machine engineering, computer science, control engineering, artificial intelligence, production management, etc.