Computer Aided Production Management By P B Mahapatra

Previous work has involved a number of linked projects which have focused on using computers to contribute to the decision support needs of a wide range of production managers in smaller manufacturing companies (SMEs). The approach adopted a structured interviewing process to identify a small number of core production management applications. The cores link together, to form a decision support system which provides many of the functions required by smaller companies. The concept has been realised in a system named Emm Lane Manufacturing Software (ELMS), which is based on a relational database and a fourth generation language. Because smaller manufacturing enterprises encounter difficulties in planning and scheduling their work effectively, an enhancement to the basic system is proposed. The approach is based on a linked set of plans with decreasing timescale and feedback loops. It is suggested that the number of planning layers could reflect the actual structure of the production environment. As the system is allocating resources at each level of planning, albeit at an aggregate level at the higher levels, more detailed information than would be contained in the traditional bill of materials is required. It is suggested that a bill of production (BoP) will be necessary to facilitate this process. A prototype module has been developed, using object-oriented techniques, to demonstrate the proposed scheduling framework and has been validated with data from a collaborating company.

This book is based on the presentations at the Third Workshop on Games in Production Management, The Effects of Games on Developing Production Management, held in Espoo, Finland, June 27-29, 1997. The workshop was organized by the Special Interest Group on Games of IFIP Working Group 5.7, which is coordinated by Professor Jens Riis. The Special Interest Group aims to enhance learning in production management in academia and in industry, through the development, application and research of simulation games. Currently, the Special Interest Group is developing a catalogue of games in production management, which will be available on the Internet. The two previous workshops of the Special Interest Group were held in Aalborg and in Sf/Inderborg, and a workshop and exhibition of simulation games was arranged in connection with the APMS '96 Conference in Kyoto in November 1996. In these workshops, various simulation games have been presented, experimented, and discussed, and experiences exchanged. As a result, a network of researchers and teachers interested in games has been created. The third workshop with participants from ten countries further expanded and strengthened the network, and created ideas for potential joint research projects in simulation for learning in production management. The workshop was sponsored by the IFIP Working Group 5.7 on Computer Aided Production Management Systems, Helsinki University of Technology, the Finnish Graduate School of Industrial Management, and the City of Espoo, which we gratefully acknowledge.

A Resource Scheduling Framework for Small Manufacturing Enterprises

Wembley, London, 30th April 1985

Cost A4-V.2 the Social Shaping of Computer-Aided Production Management and Computer

An Investigation Resulting in Development Methodology

Analysis and Design of the Scheduling Function in a Computer Aided Production Management System, Using Object-oriented Techniques

Computer Aided Production Management (CAPM) Systems in Make to Order/engineer to Order Heavy Engineering Companies

The aim of the research is to develop a model of the implementation and integration of computer aided production management (CAPM) systems in manufacturing, by drawing on the practical experience of senior managers of both production and MIS. The research design used both qualitative and quantitative data analysis techniques to examine CAPM in Taiwan and the UK. Two phases of fieldwork were undertaken. In the first phase, a series of case studies on the use of CAPM in Taiwanese manufacturing companies were developed. In the second phase, a postal questionnaire was sent to directors/managers in both Taiwan and the UK. Within case and cross-case analysis used qualitative and quantitative methods to examine the implementation and integration of CAPM in Taiwanese manufacturing companies. interviews were conducted with 54 senior production and MIS managers in 20 Taiwanese manufacturing companies, and 8 government and commercial software consultants. Fourteen case studies of CAPM in Taiwanese manufacturing companies were described. Evidence from the above case studies shows that the most important elements of CAPM implementation and integration include the nature of the production system, CAPM software subsystems and CAPM-related software subsystems, barriers and facilitators to CAPM, benefits from CAPM, and the level of CAPM of integration. The findings from each of these elements were compared to the findings of other researchers in order to develop a hypothesised model of CAPM implementation and integration. The hypothesised model of CAPM implementation and integration was used as the basis of the design of a questionnaire to test and examine the model. The questionnaire was used in a postal survey of Taiwanese.

Learning has become a constant state of mind for most professionals in today's organizations. However, to become a true learning enterprise, organizations cannot stop at instilling this yearning for knowledge into their collaborators. They must also capture and formalize the common know-how of the organization, as well as provide time and infrastructure to allow learning moments to happen. The aim of the Gaming Workgroup within IFIP 5.7 on Integrated Production Management Systems and the European Group of University Teachers for Industrial Management EHTB is to develop tools and formalisms to support experimental learning in these organizations. It has been proven that modelling the know-how, using visual environments such as multimedia and graphic simulations, is a first step. This in turn allows for the development of games, i.e. challenging settings that foster group interaction and problem solving. Games in Operations Management provides an excellent overview of the different game formats that have been developed and tested in past years, and includes games in a manufacturing environment, games in a services environment, and games for teaching organizational values. The book comprises the selected, revised proceedings of the 4th International Workshop on Games in Production Management: Experimental Learning in Industrial Management, which was sponsored by the International Federation for Information Processing (IFIP) and held in November, 1998, in Ghent, Belgium. The book will be of particular interest to organizational trainers, providing a good overview of state-of-the-art game and training formats as well as hints and advice on how to organize interactive training sessions. It will also be of interest to researchers in industrial engineering, industrial management, and operations management.

The Implications for Corporate and Public Policy

A Unified Approach to Manufacturing Technology, Production Management and Industrial Economics

A Practical Guide for Managers

A Model Based Approach to the Design and Implementation of Computer Aided Production Management Systems

Computerizing Production Management Systems

Perspectives and future challenges

Production planning, Computer applications, Production management, Management, Computer software, Computer hardware, Management techniques

This volume includes 41 revised papers selected from 125 papers presented at the th 6 IFIP Technical Committee 5/Working Group 5.7 International Conference on Advances in Production Management Systems - APMS'96 -held at Kyoto, Japan, 4-6 November 1996. The task of selecting papers was accomplished by the IPC members voting. The selected papers were reviewed by IPC members who attended the conference. Based on the comments of reviewers, each paper was revised and rewritten in the format of this book. Therefore, the quality of each paper was raised very much. The papers selected in this volume were classified into invited articles and six themes taking into account the perspectives and future challenges in production management systems. Invited articles provide the overview of the present and future trend in the manufacturing world. Six themes were Next Generation Manufacturing Systems and Production Management, Benchmarking, Integration in Manufacturing and Decentralized Production Management, Strategic Aspects, Production Planning, and Production Scheduling. Each theme covers important area of present and future production management reflecting the recent trend in manufacturing toward globalization, agility in variety production, human centered manufacturing, environment consciousness, and so on. We hope that this volume will emerge a lot of new ideas to reach the goal of IFIP WG5.7 "Computer Aided Production Management" and to bridge the gap between research and industrial practice in production management systems.

Computer Aided Production Management in Trinidad and Tobago

Computer Aided Design, Manufacture and Production Management in the Soviet Union

Computer-aided Production Management

Guide to Production Control. Computer Aided Production Control

Proceedings from a COST A4 Workshop in Gilleleje, Denmark, 14 to 16 April 1994

A Study of Computer Aided Production Management in UK Batch Manufacturing

This second edition of the classic textbook has been written to provide a completely up-to-date text for students of mechanical, industrial, manufacturing and production engineering, and is an indispensable reference for professional industrial engineers and managers. In his outstanding book, Professor Katsundo Hitomi integrates three key themes into the text: * manufacturing technology * production management * industrial economics Manufacturing technology is concerned with the flow of materials from the acquisition of raw materials, through conversion in the workshop to the shipping of finished goods to the customer. Production management deals with the flow of information, by which the flow of materials is managed efficiently, through planning and control techniques. Industrial economics focuses on the flow of production costs, aiming to minimise these to facilitate competitive pricing. Professor Hitomi argues that the fundamental purpose of manufacturing is to create tangible goods, and it has a tradition dating back to the prehistoric toolmakers. The fundamental importance of manufacturing is that it facilitates basic existence, it creates wealth, and it contributes to human happiness - manufacturing matters. Nowadays we regard manufacturing as operating in these other contexts, beyond the technological. It is in this unique synthesis that Professor Hitomi's study constitutes a new discipline: manufacturing systems engineering - a system that will promote manufacturing excellence. Key Features: * The classic textbook in manufacturing engineering * Fully revised edition providing a modern introduction to manufacturing technology, production managment and industrial economics * Includes review questions and problems for the student reader

Computer-Aided Production ManagementSpringer Science & Business Media

Conference on Computer Aided Production Management

Games in Operations Management

The Social Shaping of Computer-aided Production Management and Computer-integrated Manufacture

The Development of an Implementation Methodology for Computer Aided Production Management in Small, Make-to-order Manufacturing Businesses

A Study of the State of the Art in Computer-aided Production Management in UK Industry

An Introduction to CAPM (Computer Aided Production Management)

The purpose of this book is to discuss the state of the art and future trends in the field of computerized production management systems. It is composed of a number of independent papers, each presented in a chapter. Some of the widely recognized experts in the field around the world have been asked to contribute. lowe each of them my sincere gratitude for their kind cooperation. I am also grateful to Peter Falster and Jim Browne for their kind support in helping me to review topics to be covered and to select the authors. This book is a result of the professional work done in the International Federation of Information Processing Technical Committee IFIP TC5 "Com puter Applications in Technology" and especially in the Working Group WG5. 7 "Computer-Aided Production Management". This group was established in 1978 with the aim of promoting and encouraging the advancement of the field of computer systems for the production management of manufacturing, off shore, construction, electronic and similar and related industries. The scope of the work includes, but is not limited to, the following topics: 1) design and implementation of new production planning and control systems taking into account new technology and management philosophy; 2) CAPM in a CIM environment including interfaces to CAD and CAM; 3) project management and cost engineering; 4) knowledge engineering in CAPM; 5) CAPM for Flexible Manufacturing Systems (FMS) and Flexible Assembly Systems (F AS); 6) methods and concepts in CAPM; 7) economic and social implications of CAPM.

Innovation in all aspects of mechanical engineering and management Computer Aided Production Engineering is a compilation of papers presented at the 17th International CAPE Conference in 2001. Featuring the work of leading innovators from academia and industry, this book explores the forefront of mechanical engineering technology and practices to provide insight for today and direction for tomorrow. Broad in scope yet rich in detail, these papers cover topics ranging from supply chain management, nontraditional processes, and quality control, to machining processes, concurrent design and engineering, rapid prototyping, virtual reality applications, and much more.

Session 4A : PEP 86 : 3rd International manufacturing conference : Papers

Computer Aided Production Engineering

An Empirical Analysis of the Critical Factors in the Development of CAPM in Taiwan and the UK.

Advances in Production Management Systems

The Success and Failure of Computer-aided Production Management

Computer aided production management

Computer-aided production management (CAPM) systems embrace virtually every aspect of a manufacturing business, from purchasing and inventory control to sales invoicing and long-term capacity planning. Allied with techniques such as just-in-time and total quality management, such systems are now recognized to be the key to competitive management. This study provides an explanation of the methods by which computer-aided production management systems can be successfully selected and implemented. The author gives a blueprint that management can follow from the initial feasibility study, through training and installation phases.

The control of manufacturing operations is of crucial importance in industry. The correct regulation of manufacturing activities makes the difference between meeting and missing customer requirements. Nowadays computerised solutions are available as an aid to production management. However, many companies proceed to use sophisticated computer tools without first understanding the basic operating principles. This book is written for students of manufacturing systems as well as people in industry who need a concise explanation of the concepts of Computer Aided Production Management (CAPM) or who may be looking for new ideas.

IFIP TC5 / WG5.7 Third Workshop on Games in Production Management: The effects of games on developing production management 27-29 June 1997, Espoo, Finland

The Implementation and Integration of Computer Aided Production Management (CAPM)

Computer Aided Production Management for Small/medium Sized Enterprises

An Introduction to Computer Aided Production Management

Computer Aided Production Management in Large Organisations: Theory and Application

Computer Aided Production Management