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Human Aspects in Production Management

Proceedings of the IFIP WG 5.7 Working Conference on Human Aspects in Production Management - Volume 1

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Preface of the Editors

The Working Group 5.7 of the International Federation of Information Processing (IFIP WG 5.7) held its annual Working Conference in Karlsruhe (Germany), between 5th – 9th October 2003. This Working Group was founded in 1978 as a part of the Technical Committee 5 "Computer Application in Technology" (IFIP TC 5), thus forming a member of a worldwide community of practitioners and scientists under the auspices of UNESCO. At the moment, IFIP WG 5.7 has 75 members from 25 countries around the world.

Formally dedicated to "Computer-aided Production Management", IFIP WG 5.7 has been focusing on "Integration in Production Management" for several years now. Considering the scope of interest during the first two decades of the group's existence, integration, as in the first part of the group's name, certainly still encompasses the application of computer tools. Today, as a result of the economic development around the world, it also comprises the integration of production processes within an enterprise as well as the networks of enterprises.

The second part of the group's name addresses the field of application, namely production management. Research activities and solutions in industry have traditionally been dominated by topics like facility and machinery equipment management, material supply and warehousing concepts and tools, configuration of production programmes, strategies for order processing and computer tools to support the design and control of production systems, only to mention a few aspects.

Beyond these more technical, organisational and information technology related aspects there is certainly another one which has to be considered more closely than ever before, namely that of human resources. Is not group technology also related to group work? Do partners in a global network only operate according to predefined

process schemes with no personal contact? Are the mental process models of the programmers of ERP-systems the same as those of the users? What is the impact of human behaviour and what consequences are to be expected if organisational and individual objectives are separated? And finally, how do necessary technological changes affect the workforce and the individual needs and wishes of the employees.

As a consequence, production management should consider human aspects in more details for a better understanding of their double role within production management: Humans are not only regarded as managed resources, as they are looked upon from a traditional perspective. They are also managing resources, not only on the executive level of an enterprise, but in many cases also on the shop floor level, as demonstrated by many examples of continuous improvement teams in the industry.

Hence, to address these important human-related aspects in the manufacturing, this Working Conference was devoted to the "Human Aspects in Production Management". This volume contains the enlarged abstracts of the presented papers. They reveal numerous problems within this topic, often leading to more questions than answers or solutions. Thus, this conference pointed out a broad field for further research work as well as the need for solutions in industry.

The theme of this Working Conference was initially proposed by the local organiser, the ifab-Institute of Human and Industrial Engineering of the University of Karlsruhe. The organisers appreciate that this topic, which is in fact very much related to the ifab-Institute, was accepted for the first time in the IFIP WG 5.7 series of Working Conferences, but they sincerely hope that conferences with similar and associated themes will appear in the future.

As usual, this Working Conference was also open to other current topics in the field of productivity management. The enlarged abstracts these papers are presented in volume 6 of this series.

Prof. Dr.-Ing. Dipl.-Wirtsch.-Ing. Gert Zülch Dr.-Ing. Sascha Stowasser Dr. Harinder S. Jagdev

Contents

D4		Page
Part Plen:	A: ary Presentations	9
A 1	Human Aspects in the Digital Factory Gert Zülch	10
A2	The Significance of Digital Manufacturing within the New Planning Process Eberhard Haller Emmerich Schiller	18
A3	Principles for Service Engineering Alastair Nicholson	24
A 4	The Development and Application of Human Modelling Systems to Promote Product Design J. Mark Porter	30
A5	Human Aspects in Manufacturing Process Management Stefan Linner Manuel Geyer	37
Part Hum	B: nan Resources Planning	45
B1.1	An Approach to Modelling and Matching Human System Competencies to Engineering Processes Joseph O. Ajaefobi Richard H. Weston	46

B1.2	Personnel Development and Assignment Based upon the Technology Calendar Concept Sven Rottinger Gert Zülch	53
B1.3	Human Aspects of IT-Supported Performance Measurement Sai S. Nudurupati Umit S. Bititci	60
B2.1	Multiplied Behavior Regulation Paradigm Judit Farkas György Kaucsek	68
B2.2	Human Factors Aspects in Set-Up Time Reduction Dirk Van Goubergen Thurmon E. Lockhart	75
B2.3	Working Time Configuration in Service Enterprises by Personnel-Oriented Simulation Patricia Stock Thomas Bogus Gert Zülch	82
Part Ergo	C: nomic Tools	89
C1.1	A Tool for Human-Centered Job Design Andreas Pohlandt Uwe Debitz Frank Schulze Peter Richter	90

C1.2	Workplace Injury Risk Prediction and Risk Reduction Software for the Non-Ergonomist Leonard O'Sullivan Timothy Gallwey	99
C1.3	Risk Reduction in Selected Companies with Standard Case Studies Using Computer Based Checklist "EUCheck" Regina Brauchler Christoph Spelten Kurt Landau	106
Part Digit	D: al Factory	113
D 1.1	The "Virtual Factory" at Opel Franz-Josef Schneider	114
D1.2	Digital Planning Validation in Automotive Industry Günter Wöhlke Emmerich Schiller	120
D1.3	Collaborative Business and Data Privacy: Toward a Cyber-Control? Frédérique Biennier Joël Favrel	129
D2.1	Development of a Remote Monitoring and Management System Toshiaki Kimura Yuichi Kanda	136
D2.2	Security Architecture for a Co-operative Engineering Process in a Digital Factory Environment Jan Woerner Heinz Woern	143

D2.3	Modelling Occupational Health and Safety Aspects in the Digital Factory Tim Grieger Gert Zülch	150
D3 .1	Strategic Planning of the Digital Factory Horst Meier Nico Hanenkamp	156
D3.2	Management of a Multi-Agent Virtual Enterprise Agostino Villa	163
D3.3	Virtual & Augmented Reality Support for Discrete Manufacturing System Simulation Matthias Fischer Michael Grafe Carsten Matysczok Bengt Mueck Michael Schoo	170
Part Distr	E: ibuted Work	179
E1.1	Competency Development in Distributed Work Environments Pamela Meil Eckhard Heidling	180
E1.2	Networking and Collaborating on a Platform in Design and Production of Models and Tools Claus Aumund-Kopp Frank Ellebrecht Holger Fricke Holm Gottschalch Christian Panse	187

E1.3	Overcoming Cultural Barriers in Distributed Work Environments Hans Grabowski Ralf-Stefan Lossack Matthias Sander Barbara Bumeder Eva Dietz	194
Part	F:	
Tean	1 Work	201
F1.1	Modelling Human Resources to Support Team Design Nikita A. Byer Richard H. Weston	202
F1.2	Human Aspects of the Logistics of Manufacturing Cells Gregor von Cieminski Peter Nyhuis	209
F1.3	Best Practice Solutions in Modern Teamwork Ina Goller Tomasz Koch Christoph Lindinger	216
Part Worl	G: king Conditions	223
G1.1	Working Conditions of Service Actors in SMEs of the Mechanical Engineering Industry Claudia Rainfurth	224

G1.2	Experiences in Applying a Safety Management Assessment Method in Three Metal SMEs Anne Vesala Hanna-Kaisa Rajala Kari Kisko	231
G1.3	Human Factors in Lean Manufacturing: Finding the Optimal Rhythm in Short Cycle Time Assembly Gu J. W. van Rhijn Michiel P. de Looze	237
G1.4	Musculoskeletal Disorders – An Occupational Health Hazard Poonam Tewari Deepa Sharma Suneeta Sharma Razia	244
Part Lear	H: ning Aspects	251
H1.1	Developing a Web Based Simulation Game to Mediate Performance Based Knowledge in Inter-Organisational Learning to Engineers Klaus-Dieter Thoben Max Schwesig	252
H1.2	Working Process Knowledge at the Example of the Chemical Industry Thomas Scheib	260
H1.3	Learning for an Agile Manufacturing Heinz-Hermann Erbe	267

Part Hum	I: nan Optimisation	275
I1.1	Competence-Based Workplace Assignment Using a Goal Programming Approach Malte L. Peters Stephan Zelewski	276
I1.2	Task Scheduling Optimisation in Cooperative Environment Yawei Zhao Quan Yin Haisheng Zhang	283
I1.3	Workforce Scheduling Using Advanced Linear Programming Techniques Christoph Stark	291
Part	J:	
Com	munication	299
J1.1	Motivation and Communication - Communication- Friendly Measures of Employee's Motivation for Process-Improvement Horst-Artur Crostack Fabian Schneider	300
J1.2	To Speak of Organisation is to Speak of Communication: How Efficient is the Digital Way? Michael Jäckel Christoph Rövekamp Alexander Würfel	307

J1.3	A Competence Approach in the Experience Feedback Process Jorge Hermosillo Worley Holitiana Rakoto Bernard Grabot Laurent Geneste	314
Part Servi	K: ice Engineering	321
K 1.1	Fit for Service Engineering in Production Companies Alexander Karapidis	322
K1.2	Telephone Operators' Jobs: Effects of Human-Machine Interaction on Workload Vanise Goulart Zimmer Christian Johannes Zimmer	330
The .	Authors	337