Table of Contents – Part I

Knowledge Discovery and Sharing

Aligning Supply Chain Strategy with Product Life Cycle Stages 3 João Gilberto Mendes dos Reis, Sivanilza Teixeira Machado, Pedro Luiz de Oliveira Costa Neto, and Irenilza de Alencar Nääs An Overview of Design Tools Applied in Civil Construction Area at 11 Samuel Dereste dos Santos, Oduvaldo Vendrametto, and Miquel León González A Framework for Improving the Sharing of Manufacturing Knowledge through Micro-Blogging..... 19 Richard David Evans, James Xiaoyu Gao, Oladele Owodunni, Satya Shah, Sara Mahdikhah, Mourad Messaadia, and David Baudry How to Recognize a Creative SME? 27 Cynthia Lavoie and Georges Abdulnour Manufacturing Reporting Knowledge Representation: A Case Study at 34

Thorsten Wuest, Jakub Mak-Dadanski, and Klaus-Dieter Thoben	
Setting the International Logistics Strategy: Empirical Investigation of Its Evolutionary Stages	50
Exploitation of a Semantic Platform to Store and Reuse PLM Knowledge	59

Manel Brichni, Sophie Dupuy-Chessa, Lilia Gzara, and

Detect and Correct Abnormal Values in Uncertain Environment:	
Application to Demand Forecast	67
Éric Villeneuve, Cédrick Béler, and Laurent Geneste	
Paraconsistent Method of Prospective Scenarios (PMPS)	76
Nélio Fernando dos Reis, Cristina Corrêa de Oliveira,	

Liliam Sayuri Sakamoto, André Gomes de Lira, and Jair Minoro Abe



42

Corinne Jeannet

Nikolas Zimmermann

Considerations on a Lifecycle Model for Cyber-Physical System	
Platforms	85
An Interactive Approach for the Post-processing in a KDD Process Paula Andrea Potes Ruiz, Bernard Kamsu-Foguem, and Bernard Grabot	93
Evaluation of Existing Work System Models with Particular Consideration of Demographic Change	101
From Model Based Systems Engineering to Model Based System Realization: Role and Relevance of IVTV Plan Vincent Chapurlat and Eric Bonjour	109
Knowledge Discovery in Collaborative Design Projects	117
Efficiency of Informatics Tools to Project Development in Project-Based Learning Activities for Collaborative Engineering	124
How Information Systems Assist the Management of the Supply Chain in an Emerging Country Like Brazil	132
Managing Requirements: For an Integrated Approach from System Engineering to Project Management	142
Supporting Make or Buy Decision for Reconfigurable Manufacturing System, in Multi-site Context	150
Using Unitary Traceability for an Optimal Product Recall Thierno M.L. Diallo, Sébastien Henry, and Yacine Ouzrout	159
Information Flow Management as Cornerstone for Streamlining Business Processes	167
Current Skills Gap in Manufacturing: Towards a New Skills Framework for Factories of the Future	175

Agile Product Development Governance – On Governing the Emerging Scrum/Stage-Gate Hybrids	184
Ontology-Based Modeling of Manufacturing and Logistics Systems for a New MES Architecture	192
Towards Supplier Maturity Evaluation in Terms of PLM Collaboration	201
Global Value Chains in Shipbuilding: Governance and knowledge Exchange	209
Enablers and Disablers for Operational Integration in a Craft Oriented- versus a Mass Production Enterprise Inger Gamme and Catrine Eleonor Larsson	217
Towards a Spatiotemporal Ontology-Based on Mereotopological Theory in Assembly-Oriented Design	225
BPRM Methodology: Linking Risk Management and Lesson Learnt System for Bidding Process	233
Development of Information and Communication Systems within the Building of Project-Oriented Manufacturing Organization	241
Top-Down Definition of Design Spaces Based on Skeleton Modelling Nicolas Petrazoller, Frédéric Demoly, and Samuel Gomes	249
Framework for Information Sharing in a Small-to-Medium Port System Supply Chain	257
Preliminary Requirements and Architecture Definition for Integration of PLM and Business Intelligence Systems	265

Logistical Causes of Food Waste: A Case Study of a Norwegian Distribution Chain of Chilled Food Products	273
Requirements Engineering for Cyber-Physical Systems: Challenges in the Context of "Industrie 4.0"	2 81
WeKeyInnovation, A Wiki Based on Crowdsourcing to Share Information about Innovation Support	289
Mobile Personalised Support in Industrial Environments: Coupling Learning with Context - Aware Features	298
Alarm Management at Operators Workstations	307
MDA Based Tool for PLM' Models Building and Evolving Onur Yıldız, Nada Aouadi, Aimad Karkouch, Philippe Pernelle, Lilia Gzara, and Michel Tollenaere	315
General Use of the Routing Concept for Supply Chain Modeling Purposes: The Case of OCP S.A. Mohammed Degoun, A. Drissi, Pierre Fenies, Vincent Giard, K. Retmi, and J. Saadi	323
Inspection Interval Estimation: A Fuzzy Logic Based RBI Analysis Approach	334
Knowledge-Based Planning and Scheduling	
Multi-agent Approach for Personnel Scheduling and Rescheduling in Assembly Centers	345
Designing Interdisciplinary Scheduling Decision Support Systems in Small-Sized SME Environments: The i-DESME Framework	355
Optimum Arrangement of Taxi Drivers' Working Hours	363

Table of Contents – Part I	XIX
Supply Chain Management Strategies in Terms of Decoupling Points and Decoupling Zones	371
Logistic Operator Selection with Capacity of Storage and Transport Frozen Product Using Multicriteria Decision	379
A Multidisciplinary Model of Problem Solving in Complex Production Systems	387
Serious Play as a Method for Process Design	395
Planning Nervousness in Product Segmentation: Literature Review and Research Agenda	403
Planning Nervousness in Product Segmentation: Empirical Analysis of Decision Parameters	411
Quantifying the Bullwhip Effect of Multi-echelon System with Stochastic Dependent Lead Time	419
Warehouse Capacities in the Pharmaceutical Industry – Plan or Outsource?	427
An Empirical Investigation of Lead Time Distributions Peter Nielsen, Zbigniew Michna, and Ngoc Anh Dung Do	435
An Optimization Tool for Process Planning and Scheduling	443
Optimal "Sporadic" and Systematic Preventive Maintenance Policy for Leased Equipment under Various Operating Conditions Jérémie Schutz	451
Integrated Assembly Line Balancing with Skilled and Unskilled Workers	459

Integration of Maintenance in the Tactical Production Planning Process under Feasibility Constraint	467
Optimal Storage Assignment for an Automated Warehouse System with Mixed Loading	475
Routing Management in Physical Internet Crossdocking Hubs: Study of Grouping Strategies for Truck Loading	483
Multi Layer Modeling of Socio-Technical Production Planning and Control Systems	491
Industrial Implementation of Models for Joint Production and Maintenance Planning	499
Exploring the Integration of Maintenance with Production Management in SMEs	507
A Multidisciplinary Framework for Robust Planning and Decision-Making in Dynamically Changing Engineering Construction Projects	515
Analysis of Factors for Implementing TPM: A Study in Welded Tube Manufacturers	523
A Distributed Production Scheduling Method for Highly-Distributed Manufacturing Systems	531
A Multidimensional Multiple-Choice Knapsack Model for Resource Allocation in a Construction Equipment Manufacturer Setting Using an Evolutionary Algorithm	539
The Influence of Human Factors on Access and Scheduling of Primary Care Services	547

Table of Contents – Part I	XXI
Applicability of Planning and Control in a Port Environment	555
A Knowledge-Based Decision-Making Framework for the Design of Manufacturing Networks for Custom-Made Products Dimitris Mourtzis and Michalis Doukas	563
An Analogy between Bin Packing Problem and Permutation Problem: A New Encoding Scheme	572
Applicability of ERP for Production Network Planning: A Case Study	580
Designing a Decision Support System for Production Scheduling Task in Complex and Uncertain Manufacturing Environments	589
Dynamic Rebalancing of an Assembly Line with a Reachability Analysis of Communicating Automata	597
Author Index	605