

## TMCE 1998 - Table of Contents

Foreword	1
Table of Contents	2
<b>FW - Frameworks for Concurrent Engineering</b>	<b>6</b>
<i>Gimenez, C. and Telles, G. N. (BR)</i> Global Simultaneous Engineering	6
<i>Rohatynski, R. (P)</i> Human Oriented Approach to Computer Support for Concurrent Engineering in Distributed Enterprises	15
<i>Garrido, J. (E) Marin, R. (E) and Downie, B. R (USA):</i> Concurrent Engineering Framework to Develop Industrial Automatization Systems Based on STEP	28
<i>Price, L. C. (UK)</i> Quality Function Deployment (QFD) - An Alternative Customer Focused Approach	37
<b>ME – Management Issues in Concurrent Engineering</b>	<b>53</b>
<i>Gatzen, H. H. and Toenshoff, H. K. (DE)</i> Risk Management and Product Integrity – A Simple Approach to Concurrent Engineering	53
<i>Yazdani, B. and Holmes, C. (UK)</i> Appraisal Methods in a Concurrent Engineering Environment	58
<i>Abdul-Wahab, D. and Taleb-Bendiab, A. (UK)</i> Introduction of Enabling Technologies to Support the Virtual New Product Development Activities: A Conceptual Framework	65
<i>Kamara, J. M., Anumba, C. J. and Egbuomwan, N. F. O. (UK)</i> Tools for Client Requirements Processing in Concurrent Life- Cycle Design and Construction	80
<b>PD - Global Product Data Management</b>	<b>91</b>
<i>Baxter, J. E., Henson, B. W. and Juster, N. P. (UK)</i> Multiple Viewpoint Support for the Product Data Management of Complex Assemblies	91
<i>Krause, F.-L. and Doblies, M. (D)</i> Global Product Data Management	101
<i>Vergeest, J. S. M. and Horváth, I. (NL)</i> GEOS-Based Analysis to Determine The Feasibility of Engineering Data Sharing	109

<i>Al-Ashaab, A. H. S. and Ruiz, S. R. (MX)</i> Using a PDM as a Tool to Support a Concurrent Engineering Application in a Mexican Company	118
<b>IDM – Integrated Design Methods</b>	<b>123</b>
<i>Adachi, E. (J)</i> Extensive Satisfactory Design Method for Actual Product Designs	123
<i>Duckworth, A. P., Baines, R. W. and Taleb-Bendiab, A. (UK)</i> An Eco-Design Framework for Small and Medium Sized Manufacturing Enterprises	134
<i>Santo-Reyes, D. and Lawlor-Wright, T. (UK)</i> A Structured Approach to Successful Design for the Environment	144
<i>Woodcock, A. and Flyte, M. G. (UK)</i> Supporting the Integration of Ergonomics in an Engineering Design Environment	154
<b>DM - Decision Making in Concurrent Engineering</b>	<b>169</b>
<i>Borg, J. C. (M) and Yan, X. T. (UK):</i> Design Decision Consequences: Key to "Design for Multi-X" Support	169
<i>Medland, A. J. (UK)</i> Decision Based Communications in Design	185
<i>Matta, N., Ros, C. and Corby, O. (F)</i> A Generic Library to Guide Decision Making in Concurrent Engineering	192
<i>Hague, M. J. and Taleb-Bendiab, A. (UK)</i> Co-Design: Design Decision Support System	???
<b>VT - Virtual Technologies for Concurrent Engineering</b>	
<i>Horváth, I. (NL), Kuczogi, Gy. (NL) and Staub, G. (D)</i> Spatial Behavioural Simulation of Mechanical Objects	
<i>Ottosson, S. (S)</i> Virtual Reality in Product Development	
<i>Gomes, C. P. R., Feijó, B., Cerqueira, R. F. de G. and Ierusalimschy, R. (BR)</i> Reactivity and Pro-Activeness in Virtual Prototyping	
<i>Tangelder, J. W. H., Vergeest, J. S. M. van den Belt, H. T. and Owermars, M. H. (NL)</i> Producing Physical Prototypes Using a Sculpturing Robot	

## **ID - Intelligent Design Support Systems**

*Chuang, W. K. and Esat, I. I. (UK)*

Intelligent Engineering Design Support System

*Cointe, Ch. and Matta, N. (F)*

Multi-Agents System To Support Decision Making in  
Concurrent Engineering

*Esat, I. I. (UK)*

Geometrical Interpretation and Construction of Multi Layered  
Perceptrons

*Ohkubo, S. and Dissanayake, K. (J)*

An Intelligent Optimum Design Method for Structural Systems  
Dealing with Multiple Objectives and Fuzziness

## **AD - Design for Assembly and Disassembly**

*Sousa, A. G., Forcellini, F. A. and Back, N. (BR)*

Design for Assembly within the Conceptual Design Phase

*Dalgleish, G. F., Swift, K. G., Barnes, C. J., Jared, G. E. M.  
and Tate, S. J. (UK)*

Computer Support for Proactive DFA

*Srinivasan, H. and Gadh, R. (USA)*

A Methodology to Design for Selective Disassembly

*Holmes, C. and Yazdani, B. (UK)*

The Role of Staged Data Release in a Concurrent Engineering  
Environment

## **CV - Control and Visualization of Engineering Processes**

*Katai, F., Yoon, T. S., Tanaka, H. and Lu, M. L. (J)*

Domain System Models and Concurrent Engineering

*Brissaud, D. and Blondaz, L. (F)*

Feed-back to Design from Knowledge on Process Planning  
by Indicators

*Wiegers, T. and Knoop, W. G. (NL)*

Visualisation of Engineering Progress to Support Monitoring  
and Control of Design Processes

*Cooper, S. J. and Taleb-Bendiab, A. (UK)*

A High-Level Control Mechanism for Managing Conflict  
Resolution in Concurrent Product Design

## **EI - Education for Integrated Product Development**

*Vajna, S. and Burchardt, C. (D)*

Integrated Product Development Curriculum

*Björk, E. (S)*  
Industrial Product Development Projects in University  
Environment

*van Kollenburg, P. A. M. and Punt, G. (NL)*  
Education in Concurrent Engineering is a Must

### **FT - Feature Technology in Concurrent Engineering**

*De Martino, T., Falcidieno, B. and Giannini, F. (I)*  
Integrated Feature-based Modelling in Concurrent Engineering

*Horváth, I. and Vergeest, J. S. M. (NL)*  
Theoretical Fundamentals of Natural Representation of Shapes  
Generated with Gestural Devices

*Sharmazanashvili, A. N. and Megrelishvili, L. (G)*  
Feature-Based Approach in CAD/CAM/CNC Integration

*Gayretli', A. and Abdalla, H. S. (UK)*  
A Knowledge-Based System for Manufacturing Process  
Optimisation

### **ET – Enabling Technologies for Concurrent Engineering**

*Woodcock A. and Scrivener, S. A. R. (UK)*  
A Critical Review of the Application of CSCW in the Product  
Design Life-cycle: Past, Present and Future

*Hanneghan, M., Merabti, M. and Colquhoun, G. (UK)*  
CONCERT: A Middleware-Based Support Environment for  
Concurrent Engineering

*Williams, M. J. and Taleb-Bendiab, A. (UK)*  
Software Support for Agile Manufacturing Systems and Virtual  
Enterprises Through the Use of Multi-Agent Systems

*Falkenberg, A. (D)*  
Parallel Synthesis using Genetic Algorithms in a Parallel  
Workstation Cluster

Author index