

Research In Interactive Design Vol. 3

[DOWNLOAD HERE](#)

1;Title Page;4 2;Copyright Page;5 3;Instructions;6 4;Acknowledgement;7 5;Table of Contents;8 6;1
Interactive Design: Then and Now;11 6.1;1.1 Short History of Creation;11 6.2;1.2 Knowledge
Modelling;12 6.3;1.3 Interactive Support to Decision Making: a Virtual Way;13 7;2 Integrated Design and
Manufacturing in Mechanical Engineering;16 7.1;2.1 Product Design Process;16 7.2;2.2 Multidisciplinary
Approach;18 7.3;2.3 Conceptual Design;20 7.4;2.4 Collaborative Product Design and Manufacturing;22
7.5;2.5 Knowledge in Engineering;25 7.6;2.6 Advanced Manufacturing;28 7.7;2.7 Inspection and Reverse
Engineering Technique;35 7.8;2.8 Product Lifecycle Management;38 7.9;2.9 Creativity;40 7.10;2.10
Tolerancing in Design and Manufacturing;42 7.11;2.11 DFA and DFM;45 7.12;2.12 Process and
Production Management;47 7.13;2.13 Re-Design;50 8;3 Interactive Product Design;53 8.1;3.1
Introduction;53 8.1.1;3.1.1 Interactive product design through the lifecycle;54 8.1.2;3.1.2 Needed
requirements for the interactive design;56 8.1.2.1;Evolutionary model of product;56 8.1.2.2;Interactions of
product with human and environment;57 8.1.2.3;Interactive simulation of product behavior;58
8.1.2.4;Decision support systems;59 8.1.3;3.1.3 Feedback of the industrial engineering support systems
and outlooks;60 8.2;3.2 Interactive Simulation for Design;61 8.3;3.3 Interfaces for Interactive Design;63
8.4;3.4 Team and Process Interactive Management;65 8.5;3.5 Interactive Virtual Representation;68
8.6;3.6 Virtual and Geometric Models;71 8.7;3.7 Human Centred Design;73 8.8;3.8 Models for Interactive
Design: Techniques and Qualification;76 8.9;3.9 Interactive Exploration of Design Spaces;78 8.10;3.10
CAE, CAD and Virtual Reality;81 8.11;3.11 Behavioural Simulation;83 8.12;3.12 Assistance and Virtual
Reality;85 8.13;3.13 Robust Manufacturing;88 8.14;3.14 Risk Prevention;91 9;4 Green Engineering,
Design and Innovation;93 10;5 Global Design and Manufacturing;101 10.1;5.1 Introduction;101
10.1.1;5.1.1 Prologue;101 10.1.2;5.1.2 Current academic and industrial solutions;102 10.1.3;5.1.3 Design
rationale issue and expected trends;102 10.2;5.2 Global Design Tools, Methods and Techniques;103
10.3;5.3 Extended and Virtual Factory;106 10.4;5.4 Information Technology for Global Design and
Manufacture;108 11;6 Virtual environments and prototyping for human health and safety;111 11.1;6.1
Introduction;111 11.2;6.2 Human Factors in Virtual Maintenance and Manufacturing;113 11.3;6.3

Interactive Robotic Simulation in Cooperation Scenarios;116 11.4;6.4 Virtual Prototyping in Medicine;118
12;7 Product and Interaction Design Environments for the Future;121 12.1;7.1 Introduction;121 12.2;7.2
Advanced Prototyping for Interaction Design;122 12.3;7.3 Virtual and Mixed Reality for Design;124
12.4;7.4 Advanced Tools for Early Product Design;126 13;8 TRIZ and Intellectual Property
Management;130 13.1;8.1 Introduction;130 13.2;8.2 Developments on Creativity;132 14;9 Methods and
Simulation Tools for Assembly Design and Manufacturing;136 14.1;9.1 Introduction;136 14.2;9.2
Developments on Tools for Assembly Design and Manufacturing;137 15;10 European Qualification and
Certification for the Lifelong Learning;141 15.1;10.1 Introduction;141 15.2;10.2 ECQA and EMIRAcle for
Lifelong Learning;142 15.2.1;10.2.1 EMIRAcle;142 15.2.2;10.2.2 ECQA;143 15.2.3;10.2.3 The ECQA
Qualification and Certification Schema;144 15.3;10.3 Modern Job Roles in Innovative Product
Development;145 15.3.1;10.3.1 ECQA Certified Integrated Design Engineer;145 15.3.2;10.3.2 ECQA
Certified Lean Six Sigma Expert;146 15.3.3;10.3.3 ECQA Certified EU Researcher-Entrepreneur;146
15.4;10.4 Training and Certification System;148 15.4.1;10.4.1 Training Process;149 15.4.2;10.4.2
Training Material;150 15.5;10.5 Involvement of AIP-PRIMECA Network;151 15.6;10.6 Conclusions;152
EAN/ISBN : 9782817801698 Publisher(s): Springer, Berlin, Springer, Paris Discussed keywords:
Produktdesign Format: ePub/PDF Author(s): Nadeau, Jean-Pierre - Fischer, Xavier

[DOWNLOAD HERE](#)

Similar manuals:

[Research In Interactive Design Vol. 3](#)