Three decades of data integration - all problems solved? p. 3
The PLIB ontology-based approach to data integration p. 13
The MOMIS methodology for integrating heterogeneous data sources p. 19
Building scalable mediator systems p. 25
Representation of procedural knowledge and its use to compute a form of subsumption p. 31
Developing re-usable interactive storytelling technologies p. 39
Connecting the real world and virtual world through gaming p. 45
Positive effects of entertainment technology on human behaviour p. 51
Realization of tai-chi motion using a humanoid robot p. 59
Storytelling for recreating our selves - Zenetic computer p. 65
Interaction in a sensitive house p. 71
Dependable systems of the future - what is still needed? p. 79
Dependability and its threats - a taxonomy p. 91
Current research activities on dependable computing and other dependability issues in Japan p. 121
The evolution of dependable computing at the University of Illinois p. 135
Wrapping the future p. 165
From the University of Illinois via JPL and UCLA to Vytautas Magnus University - 50 years of computer engineering by Algirdas Avizienis p. 175
Airbus fly-by-wire - a total approach to dependability p. 191
Unique dependability issues for commercial airplane fly by wire systems p. 213
The fault-hypothesis for the time-triggered architecture p. 221
Communications dependability evolution p. 235
Intrusion tolerance for Internet applications p. 241
Static program transformations for efficient software model checking p. 257
Architectural challenges for a dependable information society p. 283
Experimental research in dependable computing at Carnegie Mellon University p. 305
Systems approach to computing dependability in and out of Hitachi - concept, applications and perspective p. 329
Basic concepts of abstract interpretation p. 359
TVLA - a system for generating abstract interpreters p. 367
AiT - worst case execution time prediction by static program analysis p. 377
Astree - verification of absence of run-time error p. 385
Industrial experience of abstract interpretation-based static analyzers p. 393
Design space for multimodal interaction p. 403
Software design and development of multimodal interaction p. 409
A generic formal specification of fusion of modalities in a multimodal HCI p. 415
Multimodality and multi-platform interactive systems p. 421
Multimodality and context-aware adaptation p. 427
Towards multimodal Web interaction p. 433
Towards "inventiveness-oriented" CAI tools

Exploring the inclusion of design factors in computer aided inventing

State-of-the-art and trends of computer-aided innovation tools

Computer aided comprehensive design for six sigma (DFSS) and axiomatic design (AD)

TRIZ and computer aided inventing

Optimization vs innovation in a CAE environment

Formal proof and test case generation for critical embedded systems using SCADE

Safety assessment with AltaRica

Improving certification capability through automatic code generation

Early validation of requirements

Proof of properties in avionics

Running an e-learning project - technology, expertise, pedagogy

Learning objects interoperability - the ARIADNE experience

An e-learning version of the French higher education curriculum - "computer methods for the companies management"

Perspectives on computing for service providers of intelligent environments

Global governance of the technological revolution

E-Health - making healthcare better for European citizens

Intelligent ethics

The TRain topical day - a foreword

TRain - the railway domain

Reusing formal models

A refinement based approach to calculating a fault tolerant railway signal device

From railway resource planning to train operation

Integrated formal methods for safety analysis of train systems

Stochastic train domain theory framework

CyberRail

Towards a formal model of CyberRail

Open source software in critical systems - motivation and challenges

Trusting strangers - open source software and security

An interdisciplinary perspective of dependability in open source software

Is academic open source software dependable?

Open source in dependable systems - current and future business models

An open-source VHDL IP library with plug&play configuration

Linux - a multi-purpose executive support for civil avionics applications?

A journey towards an OSS-aware organization

Social robots - challenges for machine intelligence

Development of humanoids and new business structure

Towards robot companions
Roles of robots in human society - challenges and case studies  p. 745
Human-like motion from physiologically-based potential field  p. 747
A dialog based interactive robot  p. 749
Tracking humans  p. 751
Learning and cooperative multimodal humanoid robots  p. 753
From geometric to cognitive maps - a key element for personal robots  p. 755
Centibots - very large scale distributed robotic teams  p. 761

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.