1. Record Nr. UNINA9910823734403321

Titolo	Concept-oriented research and development in information technology / / edited by Kinji Mori ; Yinong Chen [and sixteen others], contributors
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2014 ©2014
ISBN	1-118-75397-6 1-118-75364-X 1-118-75402-6
Edizione	[1st edition]
Descrizione fisica	1 online resource (344 p.)
Collana	Wiley series in systems engineering and management
Altri autori (Persone)	MoriKinji <1947-> ChenYinong
Disciplina	004.072
Soggetti	Information technology - Research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Cover; Wiley Series in Systems Engineering and Management; Title page; Copyright page; Foreword; Preface; Contributors; Part I: Introduction; 1: Introduction; 1.1 Factors of Research and Development (R&D) Approaches; 1.2 R&D Approaches; 1.3 Autonomous Decentralized System (ADS) Concept and its R&D; Part II: Concept Creation; Summary; 2: Challenges in Technology Education and System Development in Software Ecosystem Environment; 2.1 Introduction; 2.2 Importance of Education; 2.3 Needs Engineering; 2.4 Software Ecosystem; 2.5 Summary and Conclusions; Acknowledgments 3: Concept-Oriented Research and Development from Social and Cultural Perspectives3.1 Introduction; 3.2 R&D and Engineering Education; 3.3 R&D and Systems Approach; 3.4 R&D and Social Demand; 3.5 Autonomous Decentralized System (ADS) Requirements; 3.6 Concept Creation and Innovation; 3.7 Conclusions; 4: Roads to Smarter Cities; 4.1 Introduction; 4.2 IBM's Strategy; 4.3 Use of Platform in the Deployment Phase; 4.4 Smarter Cities; 4.5 The Future; 4.6 Conclusions; 5: Advancing Knowledge and Evolving Society; 5.1 Introduction; 5.2 Research and Innovation; 5.3 Innovation and Technology Transfer

5.4 The CEFRIEL Experience5.5 Conclusions; Part III: Fusion of Technologies; 6: Fusion of Technologies; 6.1 Introduction; 6.2 Hardware-Software Fusion; 6.3 Computing and Communication; 6.4 Virtual and Physical Reality; 6.5 Service-Oriented Architecture; 6.6 Mashup; 6.7 Cloud Computing; 6.8 Concept-Oriented System Development; 6.9 Conclusion; 7: Fusion of Computer and Communication; 7.1 Introduction; 7.2 Historical Perspective; 7.3 System of Systems; 7.4 Problem Solving; 7.5 Role of Trust; 7.6 Example: ATM Application; 7.7 Conclusions; 8: Future of Railway Signaling and Train Control
8.1 Introduction8.2 History of Developments in the Train Control Industry; 8.3 The Current Status of Communication-Based Train Control (CBTC); 8.4 Future Trends in Train Control Technology; 8.5 Conclusion; 9: Fusion of Control Systems, Computers, and the Real World; 9.1 Introduction; 9.2 Research and Development in The "Chaos Era"; 9.3 Birth and Development of the Computer Control System; 9.4 New ICT System; 9.5 Conclusion and Proposed Future Expansion; Acknowledgments; 10: Fusion of Computer, Communication, and Control Technologies: Needs and Strategies; 10.1 Introduction
10.2 Dynamic Systems and Control10.3 Computers in Control Systems; 10.4 Networked Control Systems; 10.5 Communications in Robotics; 10.6 Vehicle Applications; 10.7 Cyberphysical Systems; 10.8 National Science Foundation; 10.9 Conclusions; Part IV: Glocalization; 11: Glocalization of the Market; 11.1 Introduction; 11.2 The Term Glocalization; 11.3 Concept Creation; 11.4 Fusion of Technologies; 11.5 Market Glocalization; 11.6 Conclusion; 12: Thinking Globally, Acting Locally and Thinking Locally, Acting Globally; 12.1 Introduction; 12.2 Transformation Framework; 12.3 Value-Based Culture
12.4 Collaborative Innovation

Sommario/riassunto

This book thoroughly analyzes the relationships between concept, technology, and market-which are the main factors in shifting information technology research and development (R&D) to a new approach. It discusses unconventional methods and viewpoints of concept creation, technology innovation, and market cultivation. Featuring contributions from international experts and case studies from IBM and Hitachi, this book is perfect for graduate students in information technology, engineering, technology management, operation research, and business-as well as for R&D researchers, directors, strategis