

1. Record Nr.	UNINA9910826315203321
Titolo	Advanced materials and manufacturing technology I : special topic volume with invited peer reviewed papers only / / edited by Dunwen Zuo [and four others]
Pubbl/distr/stampa	Zurich, Switzerland : , : Trans Tech Publications, , 2012 ©2012
ISBN	3-03813-783-9
Descrizione fisica	1 online resource (417 p.)
Collana	Advanced Materials Research, , 1022-6680 ; ; Volume 426
Altri autori (Persone)	ZuoDunwen
Disciplina	620.11
Soggetti	Materials
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 indexes.
Nota di contenuto	Advanced Materials and Manufacturing Technology I; Preface; Table of Contents; Chapter 1: Advanced Material Technology; A Bluge Rotational Tool in Thin Film Nanostructures Removal; A Surface Residual-Stress Model of Optimizing Milling Parameters for Milling Aluminum Alloy 6061; Application of Uniform Design in Experiments of WEDM in Gas; Constitutive Relation Study for Vibration Isolation Rubber of Geometric Nonlinearity and Material Nonlinearity Based on Experimental Data Support; Custom Micro Tooling for Mechanical Ductile-Mode Micro/Nano Machining of Hard and Brittle Materials Cutting Thickness of High Speed Ball-End Milling Hardened Steel Design Knowledge Origin Characteristics and Classification; Design of Automatic Steam Boiler Heated by Electricity; Effect of the Cutting Speed and Temperature on the Cutting Behavior of Hardened Steel 42CrMo with PCBN Tool; Effects of Nano-Al ₂ O ₃ p on High Temperature Frictional Wear Behaviors of NiCoCrAlY Cladded Coatings; Electrical Discharge Characteristics of Polycrystalline Diamonds; Experimental Investigation on Chip Deformation in Drilling 1Cr18Ni9Ti Experimental Investigation on Conventional Grinding of TC4 and TC11 Using SiC Abrasive Experimental Investigation on Drilling PCB Through-Holes; Experimental Investigations of Surface Hardening for Aviation Aluminum Alloy in High Speed Milling; Fabrication of Micro-Precision

Sieves with High Open Area Percentage Using Micro-Electroforming Technology; Flexible Cam Profile Synthesis Method Using NURBS and its Optimization Based on Genetic Algorithm; Formation of Cutting Direction Burr/Fracture in Orthogonal Cutting
Grey New Information GRM(1,1) Model Based on Accumulated Generating Operation of Reciprocal Number and its ApplicationGrey New Information Unbiased GRM(1,1) Model Based on Accumulated Generating Operation in Reciprocal Number and its Application; Influence of Technical Parameters on the Residual Stress in the Diamond Coating; Investigation on Tool Wear about High Efficient Axial Turning-Grinding of Engineering Ceramics; Mathematical Model and Tooth Surface Representation of Face-Gear Drive with Curvilinear-Tooth Cylindrical Gear
Microstructure and Properties of 7A04 Alloy Prepared by Thixo-Forging Microstructure and Stress Variation of Semisolid 7A04 Alloy during Isothermal Compression; Modeling Growth Ring Mechanical Properties of Coniferous Wood Based on FEM; Optimal Design Study on the Radian and Length of the Guide Plates for the Pipeline Elbow; Performance of Alloyed CVD-Coated and PVD-Coated Carbide Tools in Dry Machining Nickel Based Alloy Inconel718; Physical Field Evaluation Model of High Speed Ball-End Milling Hardened Steel; Research of Detection and Control System for Lunar Dust Effects Simulator
Research on Electrolysis Manganese Negative Plate Straighten Based on Image Processing

Sommario/riassunto

The present volume comprises peer-reviewed papers covering engineering/product/industrial design, manufacture and production, engineering materials, CAD/CAM/CAE, robotics, automation and control, sustainable technology , environment-friendly design and manufacture, web/internet technologies, artificial intelligence and smart computing in design and manufacture, enterprise management and other related topics. The content will be of great interest to production and research engineers, research students and academics. Review from Book News Inc.: Grouped into three categories, these papers cover t

2. Record Nr.	UNINA9910830983103321
Autore	Karl Holger <1970->
Titolo	Protocols and architectures for wireless sensor networks / / Holger Karl, Andreas Willig
Pubbl/distr/stampa	Chichester, West Sussex, England ; , : John Wiley & Sons, , 2007 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2006]
ISBN	1-280-24284-1 9786610242849 0-470-09512-1 0-470-09511-3
Edizione	[2007 John Wiley & Sons Ltd. pbk. ed.]
Descrizione fisica	xxv, 497 p. : ill
Altri autori (Persone)	WilligAndreas <1968->
Disciplina	681/.2
Soggetti	Sensor networks Wireless LANs
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (p. [437]-480) and index.
Nota di contenuto	Preface -- List of Abbreviations -- A guide to the book -- 1. Introduction -- 1.1 The vision of Ambient Intelligence -- 1.2 Application examples -- 1.3 Types of applications -- 1.4 Challenges for WSNs -- 1.5 Why are sensor networks different? -- 1.6 Enabling technologies -- PART I: ARCHITECTURES -- 2. Single node architecture -- 2.1 Hardware components -- 2.2 Energy consumption of sensor nodes -- 2.3 Operating systems and execution environments -- 2.4 Some examples of sensor nodes -- 2.5 Conclusion -- 3. Network architecture -- 3.1 Sensor network scenarios -- 3.2 Optimization goals & figures of merit -- 3.3 Design principles for WSNs -- 3.4 Service interfaces of WSNs -- 3.5 Gateway concepts -- 3.6 Conclusion -- PART II: COMMUNICATION PROTOCOLS. -- 4. Physical Layer -- 4.1 Introduction -- 4.2 Wireless channel and communication fundamentals -- 4.3 Physical layer & transceiver design considerations in WSNs -- 4.4 Further reading -- 5. MAC Protocols 133 -- 5.1 Fundamentals of (wireless) MAC protocols -- 5.2 Low duty cycle protocols and wakeup concepts -- 5.3 Contention-based protocols -- 5.4 Schedule-based protocols -- 5.5 The IEEE 802.15.4 MAC protocol -- 5.6 How about

IEEE 802.11 and Bluetooth? -- 5.7 Further reading -- 5.8 Conclusion -- 6. Link Layer Protocols -- 6.1 Fundamentals: Tasks and requirements -- 6.2 Error control -- 6.3 Framing -- 6.4 Link management -- 6.5 Summary -- 7. Naming and Addressing -- 7.1 Fundamentals -- 7.2 Address and name management in wireless sensor networks -- 7.3 Assignment of MAC addresses -- 7.4 Distributed assignment of locally unique addresses -- 7.5 Content-based and geographic addressing -- 7.6 Summary -- 8. Time Synchronization -- 8.1 Introduction to the time synchronization problem -- 8.2 Protocols based on sender/receiver synchronization -- 8.3 Protocols based on receiver/receiver synchronization -- 8.4 Further reading -- 9. Localization and Positioning -- 9.1 Properties of positioning. 9.2 Possible approaches -- 9.3 Mathematical basics for the lateration problem -- 9.4 Single-hop localization -- 9.5 Positioning in multi-hop environments -- 9.6 Impact of anchor placement -- 9.7 Further reading -- 9.8 Conclusion -- 10. Topology control 295 -- 10.1 Motivation and basic ideas -- 10.2 Flat network topologies -- 10.3 Hierarchical networks by dominating sets -- 10.4 Hierarchical networks by clustering -- 10.5 Combining hierarchical topologies and power control -- 10.6 Adaptive node activity -- 10.7 Conclusions -- 11. Routing protocols -- 11.1 The many faces of forwarding and routing -- 11.2 Gossiping and agent-based unicast forwarding -- 11.3 Energy-efficient unicast -- 11.4 Broadcast and multicast -- 11.5 Geographic routing -- 11.6 Mobile nodes -- 11.7 Conclusions -- 12. Data-centric and content-based networking 395 -- 12.1 Introduction -- 12.2 Data-centric routing -- 12.3 Data aggregation -- 12.4 Data-centric storage -- 12.5 Conclusions -- 13. Transport Layer and Quality of Service -- 13.1 The transport layer and QoS in wireless sensor networks -- 13.2 Coverage and deployment -- 13.3 Reliable data transport -- 13.5 Block delivery -- 13.6 Congestion control and rate control -- 14. Advanced application support -- 14.1 Advanced in-network processing -- 14.2 Security -- 14.3 Application-specific support -- Bibliography -- Index.

Sommario/riassunto

Wireless sensor networks will revolutionise applications such as environmental monitoring, home automation, and logistics. *Protocols and Architectures for Wireless Sensor Networks* provides a thorough description of the most important issues and questions that have to be addressed in a wireless sensor network. Wireless sensor networks combine current research trends from a number of different disciplines / hardware design, information & signal processing, and communication networks to name but a few. This single resource makes the crucial aspects of these research fields accessible to the reader. The authors give an overview of the current state-of-the-art and put all the individual solutions into perspective with each other. *Protocols and Architectures for Wireless Sensor Networks*: . Covers architectures and communications protocols in detail, illustrating solutions with practical implementation examples and case studies.. Provides an understanding of mutual relationships and dependencies between different protocols and architectural decisions.. Offers an in-depth investigation of relevant protocol mechanisms.. Shows which protocols are suitable for which tasks within a wireless sensor network and in which circumstances they perform efficiently. This singular text provides academic researchers, graduate students in computer science, computer engineering, and electrical engineering, as well as practitioners in industry and research engineers, with an understanding of the specific design challenges and solutions for wireless sensor networks.
