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Titolo	Green power, materials and manufacturing technology and applications III : selected, peer reviewed papers from the 3rd International Conference on Green Power, Materials and Manufacturing Technology and Applications (GPMMTA 2013), December 27-30, 2013, Wuhan, China / / edited by Wenjiang Du and Maode Ma
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Altri autori (Persone)	DuWenjiang MaMaode
Soggetti	Sustainable engineering Sustainable development Green products
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Green Power, Materials and Manufacturing Technology and Applications III; Preface, Committees and Reviewers; Table of Contents; Chapter 1: Materials Engineering and Application; Cemented Filling in a Certain Old Iron Goaf; Study of Material Forming Comprehensive Evaluation Method Based on Fuzzy Technology; A New Rust Conversion Coating and its Working Mechanism in Rust Remove and Painting; Study on Fabric Recreation and Clothing Design Based on Active Materials; Study on Sports Games Based on Smart Materials; Study of Smart Clothing Materials Based on Computer Technology Study of Green Low-Carbon Ceramics MaterialsBuilding Materials in Landscape Design; Study on Physical Training Approach Based on Multimedia and Smart Materials; Study of a New Type of Nanometer Materials in Interior Design; Study of New Environmentally Friendly Materials in Interior Design; Study on Official Kiln Ceramic Materials Shape Based on Mechanics Analysis; Study of Innovative Military Engineering in Smart Materials System; Microwave Digestion Sample

Hydride Generation-Atomic Fluorescence Spectrometry Determines Trace Selenium of Mogroside
Study on Surface Tension and Displacement Efficiency of Ionic Liquid Surfactants Containing Amine Functional GroupsStudy on Degumming Technology and Properties of Pineapple Leaf Fiber; Application of Aspen to Lithium Bromide Refrigerator; Analysis of the Movement of Materials; Research of New Materials in Sports Equipment; Experimental Study on Asphalt Composite UV Absorption Anti-Aging Agent; Study on the Element Composition of Southern Celadon Porcelain and Coloring Mechanism; Research on Polymeric Biomedical Materials
Research of Pipe Made of Cu-Zn-Si Shape Memory Alloy to Internally Sprayed Pipe Connection in Connected TechnologyResearch on Shape Memory Alloy to Petroleum Industry; Impact of New Composite Material Technology on the Performance of the Tennis Rackets; Research on Nano Materials in the Chemical Aspects; Material Research of Stone Sculpture in Installation; Empirical Analysis on the Influence of Different Land Use on Soil Organic Matter; Microwave Technology Based Polymer Process; Synthesize Phosphomolybdic Acid-Doped Polyaniline Microspheres for Catalytic Applications
Water-Filter Ratio on Heat Resistance of Condensate Polishing Filter Material in WaterAnalysis of the Metal Cell Board's Design and Production of the High-Speed Rail Way; Demagnetizing Experiment of Magnetism-Concealed Tank Based on Smart Materials; Highly-Efficient Preparation of Key Intermediate of Huperzine A; Analysis of Organic Low-Carbon Solar Material; Chapter 2: Manufacturing Technologies and Application; Study on the Collaboration between Advanced Manufacturing Technology and Production Process; Machinery Manufacturing Based on Computer Control
Research of Manufacturing Enterprise Informatization Based on SSO

Sommario/riassunto

Collection of selected, peer reviewed papers from the 3rd International Conference on Green Power, Materials and Manufacturing Technology and Applications (GPMMTA 2013), December 27-30, 2013, Wuhan, China. The 234 papers are grouped as follows: Chapter 1: Materials Engineering and Application; Chapter 2: Manufacturing Technologies and Application; Chapter 3: Mechanical Engineering and Application; Chapter 4: Control, Monitoring and Information Technologies; Chapter 5: Power Systems and Mining Research; Chapter 6: Structural and Civil Engineering; Chapter 7: Computer and Numerical Technologies;

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Titolo	Intelligent Wireless Communications
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Livello bibliografico	Monografia
Nota di contenuto	Intro -- Contents -- About the editors -- 1. An overview of the intelligent big data analytics and their technological presence in the modern digital age | Reinaldo Padilha Franca, Ana Carolina Borges Monteiro, Rangel Arthur and Yuzo Iano -- 1.1 Introduction -- 1.2 Big data -- 1.3 Artificial intelligence -- 1.4 Big data analytics -- 1.5 Discussion -- 1.6 Trends -- 1.7 Conclusions -- References -- 2. Artificial intelligence in IoT and its applications | Mona Bakri Hassan, Elmustafa Sayed Ali, Nahla Nurelmadina and Rashid A. Saeed -- 2.1 Introduction -- 2.2 AI revolution in IoT -- 2.3 Intelligent sensing -- 2.4 Feature of AI with IoT -- 2.5 Intelligent machine and deep learning in IoT -- 2.6 IoT-based AI data access and distributed processing -- 2.7 AI contribution aspects to Internet of things -- 2.8 AI for IoT applications -- 2.9 Summary -- References -- 3. Green energy harvesting protocols for intelligent wireless communication systems | Ganesh Prasad and Deepak Mishra -- 3.1 Background and motivation -- 3.2 Architecture of energy harvesting wireless networks -- 3.3 Energy harvesting models for intelligent wireless communications -- 3.4 AI-assisted online algorithms for optimal energy harvesting

communications -- 3.5 Optimal resource allocation in EH self-sustainable communication systems -- 3.6 Conclusion and future directions -- References -- 4. Discrete wavelet transform applications in the IoMT | Tamara K. Al-Shayea, Constandinos X. Mavromoustakis, George Mastorakis, Jordi Mongay Batalla, Evangelos Pallis, Evangelos K. Markakis, Imran Khan and Dinh-Thuan Do -- 4.1 Introduction -- 4.2 The discrete wavelet transform -- 4.3 DWT applications -- 4.4 Conclusions -- 4.5 Future work -- References -- 5. Intelligent agents system for medical information communication | Mariya Evtimova-Gardair and Evangelos Pallis -- 5.1 Introduction.
5.2 Analysis of the agent technologies -- 5.3 Usage of multiagent system for extraction of information -- 5.4 Big data impact when searching -- 5.5 Model of the multiagent searching system -- 5.6 Conceptual schema of the proposed searching system -- 5.7 Implementation of the searching system in Internet -- 5.8 Implementation of the intelligent system in Internet -- 5.9 Conclusion -- References -- 6. Intelligent Internet of things in wireless networks | Mona Bakri Hassan, Elmustafa Sayed Ali and Rashid A. Saeed -- 6.1 Introduction -- 6.2 IoT networks -- 6.3 Reprogrammable and reconfigurable of IoT devices -- 6.4 Open source platforms in IoT networks -- 6.5 Analysis IoT network context -- 6.6 Intelligent IoT network algorithms and strategy -- 6.7 Heterogeneous IoT-based 5G networks -- 6.8 IoT network adaptive quality of service -- 6.9 Summary -- References -- 7. Impact of jamming signal on system performance in downlink of IoT network relying on nonorthogonal multiple access | Thi-Anh Hoang, Chi-Bao Le, Dinh-Thuan Do, Imran Khan, Constandinos X. Mavromoustakis, George Mastorakis, Evangelos Pallis and Evangelos K. Markakis -- 7.1 Introduction -- 7.2 Consideration on IoT system under the impact of a jamming signal -- 7.3 Outage probability and throughput analysis -- 7.4 Numerical results -- 7.5 Conclusion -- References -- 8. QoS of communication networks using MPLS protocol | Azeddien M. Sllame -- 8.1 Introduction -- 8.2 Definitions related to chapter context -- 8.3 Quality of service principles -- 8.4 MPLS principles -- 8.5 MPLS and multimedia -- 8.6 MPLS mechanism and data center design -- 8.7 MPLS-based network-on-chip simulator -- 8.8 Conclusion -- References.
9. Damaged critical infrastructure for VANETs | Grace Khayat, Constandinos X. Mavromoustakis, George Mastorakis, Jordi Mongay Batalla, Hoda Maalouf, Evangelos Pallis, Evangelos K. Markakis, Imran Khan and Naercio Magaia -- 9.1 Introduction -- 9.2 VANET architectures -- 9.3 VANET hybrid architecture -- 9.4 VANET routing -- 9.5 VANET routing protocols -- 9.6 Cluster routing protocol -- 9.7 Clustering objectives -- 9.8 Clustering protocols -- 9.9 Cluster head selection protocols -- 9.10 Cluster head election criteria -- 9.11 VANET cluster routing protocols review -- 9.12 Clusters with double cluster head -- 9.13 Cluster merging -- 9.14 VANET in crisis -- 9.15 Weighted double cluster head selection -- 9.16 Conclusion -- References -- 10. Artificial intelligence-enabled optical wireless communication links: a revolutionary approach toward smart communication model | Rajan Miglani, Jagjit Singh Malhotra, Sushank Chaudhary and Gurjot Singh Gaba -- 10.1 Introduction -- 10.2 Overview of optical wireless communication systems -- 10.3 Introduction to artificial intelligence -- 10.4 AI for optical links: opportunities and challenges -- 10.5 Summary -- References -- 11. Intelligent underwater wireless communications | Elmustafa Sayed Ali and Rashid A. Saeed -- 11.1 Introduction -- 11.2 Underwater EM wireless communication -- 11.3 Underwater communication networks -- 11.4 Internet of underwater things -- 11.5 Underwater intelligent

data gathering system -- 11.6 The underwater intelligent recharge docking system -- 11.7 Intelligent UWC methodologies -- 11.8 Intelligent UWC modeling -- 11.9 Summary -- References.
12. Machine learning algorithms for smart data analysis in the Internet of things: an overview | Mohammed H. Alsharif, Anabi Hilary Kelechi, Imran Khan, Mahmoud A. Albreem, Abu Jahid, Constandinos X. Mavromoustakis, George Mastorakis, Evangelos Pallis and Evangelos K. Markakis -- 12.1 Introduction -- 12.2 Taxonomies of supervised and unsupervised ML algorithms -- 12.3 Research trends and open issues -- 12.4 Conclusions and recommendations -- References -- 13. Artificial intelligence and machine learning aided blockchain systems to address security vulnerabilities and threats in the industrial Internet of things | Karanjeet Choudhary, Gurjot Singh Gaba, Rajan Miglani, Lavish Kansal and Pardeep Kumar -- 13.1 Introduction -- 13.2 Birth of industrial Internet of things -- 13.3 Application areas and current examples of its use -- 13.4 Implementation challenges of IIoT -- 13.5 Vulnerabilities, threats, and risks -- 13.6 Security considerations -- 13.7 Future of IIoT -- 13.8 Introduction to blockchain -- 13.9 Introduction to AI -- 13.10 Introduction to machine learning -- 13.11 Conclusions -- References -- 14. Improved gain vector-based recursive least squares for smart antenna applications | Peter N. Chuku, Thomas O. Olwal and Karim Djouani -- 14.1 Introduction -- 14.2 Related work -- 14.3 System model -- 14.4 Performance evaluation and results -- 14.5 Conclusions -- Acknowledgments -- References -- 15. Forecast of electricity consumption: a comparison of ARIMA and neural networks | Theodoros Pseftelis, Constandinos Mavromoustakis, George Mastorakis, Periklis Chatzimisios, Evangelos K. Markakis, Evangelos Pallis and Jordi Mongay Batalla -- 15.1 Introduction -- 15.2 Data overview -- 15.3 ARIMA -- 15.4 Neural networks -- 15.5 Compare methods -- References.
16. Smart interoperability public safety wireless network | Adil Akasha, Rashid A. Saeed and Elmustafa Sayed Ali -- 16.1 Introduction -- 16.2 Public safety and emergency networks -- 16.3 The need for public safety and emergency collaboration -- 16.4 Cooperative wireless communication -- 16.5 Radio systems in public safety and emergency -- 16.6 Characteristics of smart radios -- 16.7 Vision of new communications generation for emergency -- 16.8 Recent public safety interpretability systems and future directions -- 16.9 Conclusion -- References -- Index.

Sommario/riassunto

Aimed at researchers, engineers and scientists involved in the design and development of protocols and AI applications for wireless communication devices and networks, this edited book presents recent research and innovations in emerging AI methods and AI-powered mechanisms, and future perspectives in this field.