

1. Record Nr.	UNINA9910704955403321
Autore	McArthur E. Durant
Titolo	Great Basin Experimental Range : annotated bibliography / / E. Durant McArthur, Bryce A. Richardson and Stanley G. Kitchen
Pubbl/distr/stampa	Fort Collins, CO : , : United States Department of Agriculture, Forest Service, Rocky Mountain Research Station, , June 2013
Descrizione fisica	1 online resource (98 pages) : illustrations (some color), color map
Collana	General technical report RMRS ; ; GTR-305WWW
Soggetti	Forest experiment stations - Research - Manti-La Sal National Forest (Utah and Colo.) Forests and forestry - Research - Manti-La Sal National Forest (Utah and Colo.) Forest ecology - Research - Manti-La Sal National Forest (Utah and Colo.) Bibliographies. Manti-La Sal National Forest (Utah and Colo.) Research Bibliography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen (viewed on Feb. 11, 2014). Includes index. "June 2013."

2. Record Nr.	UNINA9911019304303321
Autore	Momoh James A. <1950->
Titolo	Smart grid : fundamentals of design and analysis / / James Momoh
Pubbl/distr/stampa	Hoboken, N.J., : IEEE, : Wiley, c2012
ISBN	9786613678768 9781280767999 1280767995 9781118156100 1118156102 9781118156117 1118156110 9781118156087 1118156080
Descrizione fisica	1 online resource (234 p.)
Collana	IEEE Press series on power engineering
Classificazione	TEC031000
Disciplina	333.793/2
Soggetti	Electric power distribution - Automation
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 and index.
Nota di contenuto	SMART GRID Fundamentals of Design and Analysis; CONTENTS; PREFACE; 1: SMART GRID ARCHITECTURAL DESIGNS; 1.1 INTRODUCTION; 1.2 TODAY'S GRID VERSUS THE SMART GRID; 1.3 ENERGY INDEPENDENCE AND SECURITY ACT OF 2007: RATIONALE FOR THE SMART GRID; 1.4 COMPUTATIONAL INTELLIGENCE; 1.5 POWER SYSTEM ENHANCEMENT; 1.6 COMMUNICATION AND STANDARDS; 1.7 ENVIRONMENT AND ECONOMICS; 1.8 OUTLINE OF THE BOOK; 1.9 GENERAL VIEW OF THE SMART GRID MARKET DRIVERS; 1.10 STAKEHOLDER ROLES AND FUNCTION; 1.10.1 Utilities; 1.10.2 Government Laboratory Demonstration Activities 1.10.3 Power Systems Engineering Research Center (PSERC)1.10.4 Research Institutes; 1.10.5 Technology Companies, Vendors, and Manufacturers; 1.11 WORKING DEFINITION OF THE SMART GRID BASED ON PERFORMANCE MEASURES; 1.12 REPRESENTATIVE ARCHITECTURE; 1.13 FUNCTIONS OF SMART GRID COMPONENTS; 1.13.1 Smart Devices Interface Component; 1.13.2 Storage Component; 1.13.3 Transmission

Subsystem Component; 1.13.4 Monitoring and Control Technology Component; 1.13.5 Intelligent Grid Distribution Subsystem Component; 1.13.6 Demand Side Management Component; 1.14 SUMMARY; REFERENCES; SUGGESTED READINGS

2: SMART GRID COMMUNICATIONS AND MEASUREMENT TECHNOLOGY

2.1 COMMUNICATION AND MEASUREMENT; 2.2 MONITORING, PMU, SMART METERS, AND MEASUREMENTS TECHNOLOGIES; 2.2.1 Wide Area Monitoring Systems (WAMS); 2.2.2 Phasor Measurement Units (PMU); 2.2.3 Smart Meters; 2.2.4 Smart Appliances; 2.2.5 Advanced Metering Infrastructure (AMI); 2.3 GIS AND GOOGLE MAPPING TOOLS; 2.4 MULTIAGENT SYSTEMS (MAS) TECHNOLOGY; 2.4.1 Multiagent Systems for Smart Grid Implementation; 2.4.2 Multiagent Specifications; 2.4.3 Multiagent Technique; 2.5 MICROGRID AND SMART GRID COMPARISON; 2.6 SUMMARY; REFERENCES

3: PERFORMANCE ANALYSIS TOOLS FOR SMART GRID DESIGN

3.1 INTRODUCTION TO LOAD FLOW STUDIES; 3.2 CHALLENGES TO LOAD FLOW IN SMART GRID AND WEAKNESSES OF THE PRESENT LOAD FLOW METHODS; 3.3 LOAD FLOW STATE OF THE ART: CLASSICAL, EXTENDED FORMULATIONS, AND ALGORITHMS; 3.3.1 Gauss-Seidal Method; 3.3.2 Newton-Raphson Method; 3.3.3 Fast Decouple Method; 3.3.4 Distribution Load Flow Methods; 3.4 CONGESTION MANAGEMENT EFFECT; 3.5 LOAD FLOW FOR SMART GRID DESIGN; 3.5.1 Cases for the Development of Stochastic Dynamic Optimal Power Flow (DSOPF); 3.6 DSOPF APPLICATION TO THE SMART GRID

3.7 STATIC SECURITY ASSESSMENT (SSA) AND CONTINGENCIES

3.8 CONTINGENCIES AND THEIR CLASSIFICATION; 3.8.1 Steady-State Contingency Analysis; 3.8.2 Performance Indices; 3.8.3 Sensitivity-Based Approaches; 3.9 CONTINGENCY STUDIES FOR THE SMART GRID; 3.10 SUMMARY; REFERENCES; SUGGESTED READINGS; 4: STABILITY ANALYSIS TOOLS FOR SMART GRID; 4.1 INTRODUCTION TO STABILITY; 4.2 STRENGTHS AND WEAKNESSES OF EXISTING VOLTAGE STABILITY ANALYSIS TOOLS; 4.3 VOLTAGE STABILITY ASSESSMENT; 4.3.1 Voltage Stability and Voltage Collapse; 4.3.2 Classification of Voltage Stability

4.3.3 Static Stability (Type I Instability)

Sommario/riassunto

"The book is written as primer hand book for addressing the fundamentals of smart grid. It provides the working definition the functions, the design criteria and the tools and techniques and technology needed for building smart grid"--