2009 IEEE Power & Energy Society General Meeting

(PESGM 2009)

Calgary, Alberta, Canada
26-30 July 2009

Pages 1-658

IEEE Catalog Number: CFP09POW-PRT
ISBN: 978-1-4244-4240-9

TABLE OF CONTENTS

ADVANCES IN DISTRIBUTION SYSTEM MODELING AND ANALYSIS

AUCTION THEORY FOR POWER INDUSTRY APPLICATIONS

CHANNELING SPONSORED RESEARCH INTO CLASSROOM EDUCATION

CHARACTERISTICS AND CONTROL STRATEGIES OF MAGNETIC BEARING MACHINES AND BRUSHLESS MACHINES

DISTRIBUTED GENERATION: OPERATION AND CONTROL PROBLEMS - ASIAN AND AUSTRALIAN EXPERIENCE

DISTRIBUTION AUTOMATION WORKING GROUP

DISTRIBUTION STRAY VOLTAGE WG

DISTRIBUTION SYSTEM RELIABILITY AND AUTOMATION

ELECTRIC MACHINE MODELING AND PRACTICAL TECHNIQUES

ENERGY AND ANCILLARY SERVICE MARKETS

ENERGY DEVELOPMENT AND POWER GENERATION

ENERGY DEVELOPMENTS IN SOUTH EAST EUROPE

ETCC POSTER SESSION

EXCITATION SYSTEMS PERFORMANCE AND MODELING

EXPERIENCE WITH OPERATING GENCO ASSETS IN RTO MARKETS

GENERAL SYSTEMS PAPER SESSION

GOING "GREEN"

IMPACT OF HIGH PENETRATION OF WIND POWER ON POWER SYSTEM OPERATIONS

IMPACTS OF DISTRIBUTED RESOURCES ON DISTRIBUTION SYSTEMS

INTERACTION BETWEEN ELECTRICITY AND GAS MARKETS

POWER ENGINEERING EDUCATION COMMITTEE POSTER SESSION

POWER SYSTEM CONTROL AND STABILITY

POWER SYSTEM DYNAMIC PERFORMANCE COMMITTEE POSTER SESSION

POWER SYSTEM OPERATIONS COMMITTEE POSTER SESSION

POWER SYSTEM PLANNING AND IMPLEMENTATION (PSPI) POSTER SESSION

POWER SYSTEM RELAYING POSTER SESSION

PREASSESSMENT OF FLICKER DUE TO LOADS SERVED FROM THE UTILITY GRID

PRESENTATIONS SURGE PROTECTIVE DEVICES

PSCC POSTER SESSION

PSIM POSTER

SOLVING MAJOR CHALLENGES IN TRANSMISSION ASSET INVESTMENT IN COMPETITIVE ENVIRONMENT

SUBSTATIONS

SYNCHRONIZED MEASUREMENTS IN POWER SYSTEM OPERATION: INTERNATIONAL PRACTICES AND RESEARCH ISSUES

TOWERS, POLES & CONDUCTORS WG2/6 OVHD CONDUCTORS CONNECTORS

TRANSFORMERS POSTER SESSION

TRANSMISSION AND DISTRIBUTION COMMITTEE POSTER SESSION

TRANSMISSION CAPACITY ENHANCEMENT IN THE 21ST CENTURY

TRANSMISSION PLANNING WITH WIND GENERATORS

ADVANCED METERING INFRASTRUCTURE AND SMART GRID

ANALYSIS AND CONTROL OF DISTRIBUTED GENERATION SYSTEMS

BIDDING & RISK STRATEGIES

DISTRIBUTION AUTOMATION AS PART OF THE SMARTGRID ROADMAP

DISTRIBUTION SWITCHING & OVERCURRENT PROTECTION WG

ENABLING TECHNOLOGIES FOR THE CUSTOMER-DRIVEN MICROGRID

EQUILIBRIUM OF ELECTRICITY MARKET EFFICIENCY AND POWER SYSTEM OPERATION RISK: STATE-OF-THE-ART AND TOMORROW

ETCC COMBO SESSION

EUROPE: INTEGRATING DISTRIBUTED GENERATION: EUROPEAN DEMONSTRATION PROJECTS AND EXPERIENCES WITH VIRTUAL POWER PLANTS

FUNDAMENTALS AND CASE STUDIES OF POWER SYSTEM PLANNING

GENERAL SYSTEMS PROGRESS IN ELECTROMAGNETIC TRANSIENT ANALYSIS

GENERATION AND TRANSMISSION PLANNING TOOLS IN THE DEREGULATED PARADIGM

GENERATOR TESTING AND MODEL VALIDATION FOR GRID CODE COMPLIANCE

INTEGRATING DISTRIBUTED GENERATION

INTEGRATING PLUG-IN HYBRID VEHICLES TO THE GRID

INTERACTIONS BETWEEN EMISSIONS MARKET AND ELECTRICITY MARKET

INTERNATIONAL PRACTICES IN DEVELOPMENTS AND TECHNIQUES IN SMART GRIDS

LIGHTNING PERFORMANCE OF OVERHEAD LINES

LOAD FORECASTING TOPICS

MISCELLANEOUS ASPECTS OF ELECTROMAGNETIC TRANSIENTS SIMULATIONS

NEW APPLICATIONS OF INTELLIGENT DATA MINING IN POWER SYSTEMS

NSF-SPONSORED US-AFRICAN COLLABORATIVE RESEARCH AND EDUCATION

POWER SYSTEM ECONOMICS AND OPTIMIZATION

POWER SYSTEM PLANNING AND IMPLEMENTATION COMMITTEE - PAPER SESSION

POWER SYSTEM STABILITY CONTROLS SUBCOMMITTEE MEETING AND FACTS AND WIND POWER PAPER SESSION

PROGRESS REPORT ON NATURAL ESTER FLUIDS FOR DISTRIBUTION AND POWER TRANSFORMERS

PSCC PAPER SESSION

REGULATOR AND PUBLIC CHALLENGES TO UTILITY ENHANCEMENTS

REQUIREMENTS FOR AUTOMATED FAULT REPORTING

SUPER SESSION WIND - PART 1

SUPER SESSION WIND - PART 2

SUSTAINABLE ENERGY SYSTEMS FOR DEVELOPING COMMUNITIES

T&D POWER QUALITY PAPER SESSION

TRAINING THE FUTURE WORKFORCE FOR THE ELECTRIC POWER AND ENERGY INDUSTRY

TRANSMISSION AND PRICING FOR FAST GROWING MARKETS

WIND PLANT COLLECTOR SYSTEM DESIGN PANEL SESSION

WIND POWER GENERATION (I)

ADVANCES IN DISTRIBUTED ENERGY RESOURCES

AFRICA'S ECONOMIC RENAISSANCE GATHERS MOMENTUM

COMPUTATIONAL METHODS IN POWER FLOW AND STATE ESTIMATION

CONTROL CENTER ISSUES

DEVELOPMENTS IN DETERMINING POWER QUALITY DISTURBANCE SOURCES AND HARMONIC SOURCE CONTRIBUTIONS

DISTRIBUTION SUBCOMMITTEE

I8 PANEL SESSION ON SIMULATION TOOLS FOR PEBB BASED EQUIPMENT & SYSTEMS

INCORPORATING SMART GRID INTO POWER SYSTEM PLANNING TO OPTIMIZE CAPEX/OPEX, SYSTEM RELIABILITY, AND CARBON FOOTPRINT

INTERNATIONAL PRACTICES FOR ALTERNATIVE ENERGY IN DEVELOPING COUNTRIES

INTERNATIONAL PRACTICES IN DEMAND SIDE MANAGEMENT: PRACTICES AND BARRIERS

NEW TECHNIQUES FOR SYNCHRONIZED PHASOR DATA ANALYSIS

OPERATION, CONTROL, SIMULATION OF SYNCHRONOUS MACHINES

OSCILLATIONS, STABILITY, & ISLANDING

PARAMETER MEASUREMENT, CONTROLLER DEVELOPMENT AND EMTP SOLUTIONS FOR PERMANENT MAGNET AND SYNCHRONOUS MACHINES

PHASORS, WIDE AREA MONITORING, & STATE ESTIMATION

POWER SYSTEM RELAYING

POWER SYSTEM RELAYING PAPER FORUM #1

POWER SYSTEM RELAYING PAPER FORUM #2

POWER SYSTEM RELAYING PAPER FORUM #3

POWER SYSTEM SIMULATION AND APPLICATION OF INTELLIGENT TECHNIQUES

POWER SYSTEM STABILITY SUBCOMMITTEE AND RECENT APPLICATIONS OF LINEAR ANALYSIS TECHNIQUES PANEL SESSION

PSCC NEW CONCEPTS SUBCOMMITTEE

PSCC SECURITY SUBCOMMITTEE

RELIABILITY AND RISK IN POWER SYSTEMS

SHUNT CHARACTERISTICS, FUZZY LOGIC, TRANSIENT IMPROVEMENTS OF INDUCTION MACHINES

SYSTEM IDENTIFICATION AND MODEL PREDICTIVE CONTROL

TOWERS, POLES & CONDUCTORS WG9 MANAGEMENT OF EXISTING OVERHEAD TRANS. LINES

TRANSFORMERS I

TRANSFORMERS II

UNIT COMMITMENT

USE OF SIMULATORS IN TESTING NEW ELECTRICITY MARKETS

ADVANCED DISTRIBUTION SYSTEM MODELING AND ANALYSIS TECHNIQUES

ADVANCED TOOLS FOR INTEGRATION OF RENEWABLE RESOURCES

APPLICATION OF HEURISTIC METHODS TO POWER SYSTEM OPTIMIZATION UNDER UNCERTAINTIES

APPLICATION OF NEW MEASUREMENTS TO POWER SYSTEMS

COMPUTATIONAL METHODS IN POWER SYSTEM MODELING AND ANALYSIS

CONTROL SYSTEMS

DC AND FLEXIBLE AC TRANSMISSION SYSTEMS PAPER SESSION

DISPATCH TOPICS

DISTRIBUTION SYSTEM MODELING AND ANALYSIS

EUROPE: IMPROVING TRANSMISSION CAPACITY OF POWER SYSTEMS WITH A HIGH LEVEL OF DISTRIBUTED AND RENEWABLE GENERATION - DYNAMIC PROTECTION AND SECURITY

GLOBAL FINANCIAL CRISIS AND THE INTERACTION BETWEEN LONG- AND SHORT-TERM ELECTRICITY MARKETS

IMPACT OF WIND GENERATION ON CONTROL CENTER OPERATIONS AND NEW TOOLS TO MITIGATE RISKS

INTERNATIONAL PRACTICES IN BIOMASS - THEORY, CASE STUDIES AND PLANT OVERALL PERFORMANCE

ISLANDING AND LOCAL AREA GRID SYSTEMS

OPEN SOURCE SOFTWARE FOR POWER SYSTEMS

OPERATIONAL EXPERIENCES IN HANDLING CONTINGENCIES IN CONTROL CENTERS

POWER SYSTEM DYNAMIC PERFORMANCE PAPER FORUM

POWER SYSTEM PLANNING AND IMPLEMENTATION COMMITTEE - PAPER FORUM

RELIABILITY, HARMONIC MINIMIZING AND CONTROL OF INVERTERS FOR MOTOR DRIVES

RESEARCH AND EDUCATION FOR INTEGRATION OF RENEWABLE RESOURCES INTO POWER SYSTEMS

TRANSFORMERS III

WIND POWER GENERATION (II)

WORLD WIDE USAGE OF CIM STANDARD BY ELECTRIC UTILITIES