

Contents

A Methodology for Web-Based Power Systems Simulation and Analysis Using PHP Programming	1
Simon Agamah and Lambros Ekonomou	
Integration of Dispersed Power Generation	27
George Seritan, Radu Porumb, Costin Cepișcă and Sorin Grigorescu	
Islanding Detection Methods for Distributed PV Systems Overview and Experimental Study	63
Anastasios Kyritsis, Nick Papanikolaou, Stathis Tselepis and Christos Christodoulou	
The Use of PLC Technology for Smart Grid Applications Over the MV Grid: The DG Paradigm	81
G. Chatzis, S. Livieratos and P.G. Cottis	
The Correlation Between Renewable Generation and Electricity Demand: A Case Study of Portugal	119
P.J.F. Torres, L. Ekonomou and P. Karampelas	
A Robust Iterative Learning Control Algorithm for Uncertain Power Systems	153
Marina Vassilaki	
Damping of Power System Oscillations with Optimal Regulator	173
S.J.P.S. Mariano, J.A.N. Pombo, M.R.A. Calado and J.A.M. Felipe de Souza	
Design of Three-Phase LCL-Filter for Grid-Connected PWM Voltage Source Inverter Using Bacteria Foraging Optimization	199
Ehab H.E. Bayoumi	
Real Time Monitoring of Incipient Faults in Power Transformer	221
Nikolina Petkova, Petar Nakov and Valeri Mladenov	

Advanced Short-Circuit Analysis for the Assessment of Voltage Sag Characteristics	241
Marios N. Moschakis	
A Genetic Proportional Integral Derivative Controlled Hydrothermal Automatic Generation Control with Superconducting Magnetic Energy Storage	267
Rajesh Joseph Abraham and Aju Thomas	
Linguistic Representation of Power System Signals	285
C. Pavlatos and V. Vita	
Levenberg-Marquardt Algorithm Based ANN for Nodal Price Prediction in Restructured Power System	297
Kirti Pal, Laxmi Srivastava and Manjaree Pandit	