

2020 14th International Conference on Protection and Automation of Power Systems (IPAPS 2020)

Tehran, Iran

31 December 2019 – 1 January 2020



IEEE Catalog Number: CFP20SFB-POD
ISBN: 978-1-7281-6190-7

**Copyright © 2020 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP20SFB-POD
ISBN (Print-On-Demand):	978-1-7281-6190-7
ISBN (Online):	978-1-7281-6189-1

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Contents

No	Title	Page
1	Improvement of Security of Transformer Differential Protection in Breaker-and-a-Half Substaions, <i>Peyman Jafarian, Ali Agheli</i>	1
2	Probability Evaluation of Occurrence of Ferroresonance in Montazer Qaem 63kV Substation, <i>Shahab Aref, Alireza Sedighi Anaraki, Davoud Abootorabi Zarchi</i>	7
3	Ultra-Fast Detection and Location of Busbar Faults Employing IMG, <i>Mahmoud Lashgari, S. Mohammad Shahrtash</i>	14
4	Adaptive coordination of overcurrent relays in active distribution networks utilizing a multi-objective optimization approach, <i>Arash Samadi, Reza Mohammadi Chabanloo</i>	20
5	Coordination of Generator Underexcitation Protection with Underexcitation Limiter to Prevent Generator Tripping During Power Transformer Energization: Asaluyeh Power Plant Case, <i>Mohammad Zaman Jelvian, Mohammad Jahani, G. B. Gharehpetian</i>	26
6	A New Stabilizing Method of Differential Protection Against Current Transformer Saturation Using Current Derivatives, <i>Siamak Bahari, Tohid Hasani, Heresh Seyedi</i>	33
7	Communication Delay Time Investigation of Over Current Adaptive Relays in a IEC 61850 based Micro-grid in the Presence of Error, <i>Seyed Sajad Hazaveh, Naser Khodabakhshi-Javinani, Ali Bayandour, Nader Jalali, Hossein Askarian-Abyaneh</i>	39
8	An Energy Variation-Based Method for Discrimination Between the Internal Fault and Inrush Current in Power Transformers, <i>Behrooz Taheri, Seyed Amir Hosseini, Sirius Salehimehr</i>	47
9	Single-End Protection Scheme for LCC-HVDC Transmission Lines Based on High Frequency Components of Transmission Line Current, <i>Mohammad Mehrabikooshki, Seyed Sattar Mirhosseini, Sadegh Jamali</i>	54
10	Fault locating transmission lines with thyristor-controlled series capacitors By fuzzy logic method, <i>Mohammad zand, Morteza Azimi Nasab, Omid Neghabi, Mohsen Khalili, Ahmad Goli</i>	62
11	Transformer Terminal-Duality Model for Windings Turn-to-Turn Faults Simulation, <i>Nima Farzin, Mehdi Vakilian, Ehsan Hajipour</i>	71
12	Optimal Adaptive Protection Using Setting Groups Allocation Based on Impedance Matrix, <i>Ali Abbasi, Hossein Kazemi Karegar, Tohid Soleymani Aghdam</i>	77
13	Attributes of Big Data Analytics for Data-Driven Decision Making in Cyber-Physical Power Systems, <i>Jalal Moradi, Hossein Shahinzadeh, Hamed Nafisi, Mousa Marzband, Gevork B. Gharehpetian</i>	83
14	Fault Detection Method for DG Disconnection in Inverter-Interfaced Microgrids with Photovoltaic System, <i>Abdolhamid Farshadi, Hamed Nafisi, Hossein Askarian-Abyaneh</i>	93
15	A Novel Index to Predict the Voltage Instability Point in Power Systems Using PMU-based State Estimation, <i>Iraj Pourkeivani, Mehrdad Abedi, Shahram Montaser Kouhsari, Reza Ghaniabadi</i>	99
16	Investigation on Impact of Motor Dynamics on Operation of Current Limiting Protectors, <i>Behzad Keyvani, Hassan Bakhtiari, Hamed Nafisi</i>	105
17	A New Method for the End-To-End Testing of Differential Relays, <i>Behrooz Taheri, Seyed Amir Hosseini, Sirius Salehimehr, Farzad Razavi</i>	110