

PowerTest 2021 Conference

Online
8-11 March 2021

ISBN: 978-1-7138-3206-5

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2021) by International Electrical Testing Association (NETA)
All rights reserved.

Printed with permission by Curran Associates, Inc. (2021)

For permission requests, please contact International Electrical Testing Association (NETA)
at the address below.

International Electrical Testing Association (NETA)
3050 Old Centre Avenue, Suite 101
Portage MI 49024
USA

Phone: (269) 488-6382
Fax: (269) 488-6383

www.netaworld.org

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
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

VACUUM INTERRUPTER CONDITIONING (VIC).....	1
<i>F. Iedbetter, J. Day</i>	
MEDIUM VOLTAGE EQUIPMENT INSTALLATION: WHAT YOU DON'T KNOW CAN HURT YOU	14
<i>M. Bryan</i>	
ON-LINE LEAK REPAIR FOR TRANSFORMER OIL LEAKS.....	35
<i>G. Brown</i>	
TESTING A PROTECTION RELAY AS A "BLACK BOX" - SYSTEM TESTING EXPLAINED.....	50
<i>W. Knappek</i>	
DRIVING EMPLOYEE ENGAGEMENT AND RETENTION WITH CAREER PATH OPPORTUNITIES IN THE ELECTRICAL TESTING FIELD	72
<i>C. Campbell</i>	
STATE OF THE ELECTRICAL TESTING SECTOR IN 2021.....	81
<i>P. Seppanen</i>	
INCIDENCE AVOIDANCE THROUGH GROUND TESTING.....	92
<i>K. Wallace</i>	
HOW ATTITUDE CAN AFFECT JOB SAFETY.....	110
<i>J. White, J. Presnal</i>	
CHANGING CODES FOR A CHANGING WORLD	126
<i>K. Maynard, J. Lyons</i>	
RISK ASSESSMENTS AND THE RISK MANAGEMENT PROCESS	145
<i>S. Hester</i>	
A NEW APPROACH TO SAFELY TEST COMMON CIRCUITS FOUND IN A SUBSTATION ENVIRONMENT.....	158
<i>T. Walker</i>	
JOB SITE SAFETY: ARE WE OVER LOOKING HAZARDS? DO WE KNOW HOW TO RESPOND TO AN EMERGENCY?	190
<i>A. Holt</i>	
INTERPRETATION OF PARTIAL DISCHARGE PHASE RESOLVED PATTERNS DURING ONLINE TESTING.....	195
<i>W. Higinbotham</i>	
TESTING ELECTRIC MOTORS USING NETA TESTING STANDARDS - WHAT YOU NEED TO KNOW	217
<i>C. Earp</i>	
ADVANCED POWER FACTOR ANALYSIS OF TRANSFORMERS AND BUSHINGS	239
<i>C. Sweetser</i>	
GROUNDING TEST SCREENING	256
<i>K. Peterson</i>	

SWITCH ONTO FAULT: MAINTAINING DEPENDABILITY, SECURITY, AND SPEED 264
R. Poduval, R. McDaniel, S. Dasgupta

PROTECTION TESTING: PAST, PRESENT AND FUTURE..... 283
S. Cooper

THE MISSING LINK: HOW CT AND VT CONNECTION ERRORS AFFECT PROTECTION 295
M. Taberer, P. Iyer, K. Zimmerman

PROTECTION CONSIDERATIONS FOR AN IMPROPERLY INSTALLED ON-LOAD TAP
 CHANGER..... 323
A. Rangel

THE IMPORTANCE OF OVEREXCITATION (V/HZ) PROTECTION FOR POWER
 TRANSFORMERS AND GENERATORS 335
D. Welton

ELECTROMECHANICAL DIFFERENTIAL RELAYS MISOPERATION AND
 INVESTIGATION 349
A. Rangel

Author Index