## **2021 IEEE International Symposium on Product Compliance Engineering** (ISPCE 2021)

**Virtual Conference** 20 – 24 September 2021



**IEEE Catalog Number: CFP21PSE-POD ISBN**:

978-1-7281-8619-1

## Copyright $\odot$ 2021 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:
 CFP21PSE-POD

 ISBN (Print-On-Demand):
 978-1-7281-8619-1

 ISBN (Online):
 978-1-7281-8618-4

ISSN: 2474-0284

## 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



## TABLE OF CONTENTS

| Leveraging the EU CE Mark for Independent 3rd Party End-Product Certifications - Facts and Myths | 1    |
|--|------|
| James L. Bender, Brunno P. Covolan   |      |
| Normal, Abnormal & Fault Conditions Rationalized; Providing Proper Protection in Equipment       | 7    |
| Evaluation of Intelligent and Non-Static Power Sources, a Rational Clarification                 | . 12 |
| Touch Current from DC Products; Exploring the Landscape  | . 18 |
| Contact Burn Injuries: Analytical Assessments of Thermal Damage in a Perfused Tissue             | . 23 |
| Dalziel Revisited Application; Analyzing Mixed AC/DC Waveforms                                   | . 29 |
| Contact Burn Injuries: Experimental Assessments of Short Duration Contact Exposures              | . 34 |
| Author Indov   |      |