

**IEEE Power and Energy Society
PSRC Annual Report 2016**

Draft 3

January 3, 2017

Power System Relaying Committee

Chair: Mike McDonald

Vice-Chair: Pratap Mysore

Secretary: Russ Patterson

- I. Significant Accomplishments in 2016**
 - A. Completed planning to create a new PES Committee: Power System Communications and Cybersecurity Committee. Effective January 1, 2017 PSRC is renamed to Power System Relaying and Control Committee.**
 - B. Standards, Guides & Reports Approved and Published in 2016**
 - 1. C37.103 revision: Guide for Differential and Polarizing Relay Circuit Testing.**
 - 2. New Standards for Smart Grid Initiative:
C37.118.1 and C37.118.2; C37.232; C37.236, PC 37.238; PC37.239, C 37.242, C37.243, C 37.244 all Published.
In process: C37.237 Recommended Practice For Time Tagging of Power System Protection Events**
 - C. Presentations made at PES General Meeting; JTCM; Western, Georgia Tech, and Texas A & M Protective Relay Conferences:**
 - **“End-of-Useful Life Assessment of P & C Devices”**
 - **“Consideration in Choosing Directional Polarizing Methods for Ground Overcurrent Elements in Line Protection Applications”**
 - **“Looking into the Future Protection, Automation and Control Systems”**
 - D. PSRC Publications completed & posted on web site:**
 - **Summary paper for “Guide for Application of Digital Line Current Differential Relays Using Digital Communication”.**
 - **Presentation on “Guide for Determining Fault Location on AC Transmission and Distribution Lines”.**
 - **Report on “Analysis of System Waveforms and Event Data”.**

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- Presentation on “Avoiding Unwanted Reclosing on Rotating Apparatus (Auroa)”.
 - Report on “Looking Into the Future Protection, Automation and Control Systems”.
- E. Supported PES meetings:
1. PES General Meeting: 17 conference and 9 transaction papers presented.
 2. 2016 PES T & D Conference: 10 Conference papers presented.
- II. Benefits to Industry and PES Members:
- A. These activities keep our industry up to date with technology, improve power system reliability, and help solve the most common protective relaying problems.
 - B. We are working on cybersecurity and synchrophasor standards with NERC, PES and IEC. We have one more standard to finish for more consistent Smart Grid performance and dependability. We are addressing grid stability with guides and standards in protection, control and communication.
 - C. Our meetings allow significant interaction between the PSRC, NERC, CIGRE, IEC and PES to share our interest, knowledge, and accomplishments.
- III. Benefits to Volunteer Participants:
- 72 Working Groups and Task Forces provide fertile ground for participants to increase their personal knowledge. Their companies enjoy more personal productivity from their employees, and contribute to the standards and practices of our industry.
- IV. Outstanding Performance Recognition:
- A. IEEE Fellow: Mahendra Patel.
 - B. IEEE SA Standards Medallion to Michael J. Thompson.
 - C. PES PSRC Working Group Recognition Award—Technical Report to Dean Miller, WG chair, and Gene Henneberg, Vice Chair for “Fault Current Contributions from Wind Plants”.
 - D. PES PSRC Working Group Recognition Award for Outstanding Standard to Sam Sciacca, Chair and Co-Chair Tim Tibbals, for C37-240, “IEEE Standard Cybersecurity Requirements for Substation Automation, Protection and Control Systems”.
 - E. IEEE PES PSRC Young Professional Award to Claire Patti.

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- F. IEEE PES PSRC Recognition Award for Outstanding Subcommittee Chair to Michael J. Thompson.
- G. PSRC Distinguished Service Award to Vahid Madani.
- H. PSRC WG Recognition Award: “Revision of C37.103 Guide for Differential and Polarizing Relay Circuit Testing,” Chair Gary Kobet and Vice Chair, Alex Lee.
- I. PSRC Career Service Award to Gerald Johnson.
- V. **Coordination with Other entities:**
 - A. IEEE Standards Association Board of Governors: Phil Winston serving.
 - B. IEC TC 95: Murty Yalla serving as chair.
 - C. IEC TC 95, IEC standard 60255-187-1 supported by PSRC WG K19, Gustavo Brunello, chair.
 - D. IEC TC 95, IEC standard 60255-187-3 supported by PSRC WG D34, Norman Fischer, chair.
 - E. IEC TC 95 Joint WG 1, developing IEC Standard 60255-188-1, Synchrophasor Standard, chaired by Ken Martin.
 - F. IEC TC 57: WG 10 continues to develop IEC 61850 Edition 2.1. Convenor is Christoph Brunner.
 - G. CIGRE B5.53 Work in progress. Chairman is Alex Apostolov.
 - H. PSRC regularly met during 2016 with several subcommittees of the Substation and Power Systems Communications committees.
 - I. PSRC participated in the PES JTCM for the ninth year.
 - J. PSRC is in consistent liaison with NERC, EPRI, CIGRE and IAS.
- VI. **New Technologies of Interest:**
 - A. Cybersecurity.
 - B. Wide range grid data collection with Synchrophasors.
 - C. Smart Grid Initiatives.
 - D. Grid stability under stressed conditions.
- VII. **Significant Plans for 2017:**
 - A. January 9-12: JTCM in New Orleans, LA
 - B. Other PSRC meetings: May in Albuquerque; September in Phoenix.
 - C. Joint meetings with subcommittees of Substations and Communications Committees.
 - D. PSRC will continue to support leaders in the new Power System Communications and Cybersecurity Committee.

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- E. PSRC will participate in paper sessions and session sponsorships at PES meetings in 2017.
- VIII. Global Involvement:
 - A. Total number of attendees from Regions 8, 9, 10: 14
 - B. Total number of Main Committee members from Regions 8, 9, 10: 3
 - C. Officers from Regions 8, 9, 10: 0
 - D. Subcommittee Officers from Regions 8, 9, 10: 0
 - E. Subcommittee Members from Regions 8, 9, 10: 3
- IX. Problems and Concerns:
None

Submitted by: Mike McDonald

January 10, 2017