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Oct 2016 Update

ERLPhase Power Technologies

With autumn in full swing, here's what's new at ERLPhase...

News Coverage of CEB Meeting in Sri Lanka

In June Krish Narendra, Ph.D (CTO of ERL's Power Automation & Smart Grid division) recently appeared on Sri Lankan television, coverage of his meetings with the head of Ceylon Electricity Board (CEB) about TESLA Power System Recorders. CEB is the largest electricity company in Sri Lanka, which manages all major functions of electricity generation, transmission, distribution and retailing in Sri Lanka.

[View video](#)



Evolving Generation Systems to Meet NERC Requirements

Looking to meet upcoming NERC requirements in your generating plants? In July of 2014, NERC announced requirements for system monitoring and control, that are being phased in by utilities, with enforcement date of July 2018. Utilities are phasing in new equipment and preparing compliance bulletins informing of their upgrade plans. TESLA recorders can gather data and format it for EPRI modelling software in order to meet NERC requirements.



NERC reliability standards:

- Mod-026 applies to generation owners and transmission planners to ensure that detailed modeling of generator excitation systems " will be conducted and that those models accurately represent generator excitation control system or plant volt/var control function behavior for bulk electric system reliability assessments"
- Mod-027 verifies that models used in dynamic simulations that assess bulk electric system reliability, "accurately represent generator unit real power response to system frequency variations"
- PRC-002-2 outlines disturbance monitoring and reporting requirements to ensure adequate data for analyzing bulk electric system disturbances

Visit NERC website for complete [NERC standards](#).

Still have electromechanical relays in your system? Many of our customers still have large numbers of traditional electromechanical relays, in parts of their system not upgraded in many years. Often in remote substations, if these relays trip or detect a disturbance, no communication is in place to alert system operators and planners before a disturbance grows. Rather than replace relays which are functioning well, investment in a disturbance fault recorder (to monitor and control those systems) is less expensive and offers greater visibility and system control. DFRs can help model generator excitation systems and ensure that control functions are operating correctly.

Contact us today to learn more about options to monitor your generation systems and plan upgrades to meet upcoming NERC requirements. Visit our website to learn more about the [TESLA Power System Recorder](#).

Krish Narendra Receives PSRC Bronze Service Award

Congratulations Krish Narendra, Ph.D (CTO of ERL's Power Automation & Smart Grid division) who was recently recognized from the IEEE Power System Relaying and Control Committee for significant contribution over the past 15 years to various working groups in power system protection, control and automation. Specifically the award recognizes the importance of his role in the technical report "User of Synchrophasor Measurements in Protective Relaying Applications" which was submitted to the IEEE PSRC last year



Lunch Seminar at IEEE PES Phoenix

In May, ERLPhase Director of Technical Support Rene Midence provided a sub-harmonics presentation to the IEEE PES Phoenix Chapter, at a Lunch and Learn in Phoenix, AZ.



Monthly IEEE PES Phoenix Chapter luncheons allow the IEEE a forum to introduce new technologies, products and have open discussions about industry practices and standards. The provides a platform for open discussion and knowledge transfer in the electric power industry around the greater Maricopa County area. This chapter hosts monthly technical luncheons, encourages local non-profit community workshops, recognizes outstanding students and professionals, creates online resources, and supports electric engineering programs at local universities. Members and participants include those from local utilities, engineering firms, contractors, distributors, manufacturers, as well as engineering students and academic faculty.

The presentation was attended by 30 members of the IEEE PES Phoenix Chapter, representing

- What are sub-harmonics?
- What are the typical causes of sub-harmonics?
- What are the system conditions that may be susceptible to introducing sub-harmonics?
- What studies should be considered to determine if the power system may be at risk for sub-synchronous resonance (SSR)?
- How to mitigate the detrimental effects of sub-harmonics solution to protect against sub-harmonics

Thank you to Gorman Company for involvement in setting up this presentation. We support this type of information exchange and welcome invitations from other customers and chapters to speak at future events.

Welcome Stephen Suto

Stephen Suto joined our team in May as the SE USA Regional Sales Manager based in the Tampa, FL area. Steve has extensive work experience in utility power and automation technologies, including several years at Beckwith Electric in various roles including inside sales and as a sales manager for the SE USA. Mr. Suto has enjoyed working our customers so far and learning about their applications. He looks forward to expanding those relationships in the south eastern states. Mr. Suto may be reached at ssuto@erlphase.com.



Manitoba Hydro Tour



Thank you to our friends at Manitoba Hydro for the recent tour at the St Vital transmission complex. Our development team got a broader view of the application of our range of products, and appreciated speaking with end users about their use of our products and their overall system plans for the future.

Successful ISO 9001:2008 Re-Certification Audit



ERLPhase Power Technologies is pleased to announce we have been awarded a renewal of ISO 9001:2008 certification. This certification covers the major processes ERLPhase has developed to ensure quality for our customers, including assembly, test, receiving inspection, equipment calibration, supplier selection and supplier review. The auditor was

especially impressed with the high level of confidence and competence that staff showed in their respective areas, use of electronic tools to monitor processes effectively, and thorough

Fall Shows

Enjoying seeing many of you this fall. Earlier this month, Krish Narendra, Ph.D, presented "Development of a Virtual Model of a Sub Harmonic Protection Relay" at Cigre Canada in Vancouver. Our team is also meeting with customers and showing our products at the Western Protective Relay Conference in Spokane (see photo below), at the Minnesota Power Systems Conference (November in St Paul), and at CONCAPAN (November in Costa Rica).



René Midence, Director of Technical Services, at WPRC in Spokane.

Registered for Customer Emails?

ERLPhase maintains lists of end user email addresses which are used to quickly notify customers if an update or notification is released affecting their product:

- 2000/3000 series relays
- 4000 series relays
- 2000/3000 series TESLAs
- 4000 series TESLAs

Please visit <http://www.erlphase.com/register.php> to subscribe.

Upcoming Events

Minnesota Power Systems Conference

Nov 8-10, 2016

St Paul, MN

Visit our booth!

[Learn more about MIPSYCON](#)

CONCAPAN

Nov 9-11, 2016

Costa Rica

Visit us!

[Learn more about CONCAPAN](#)

DistribuTECH

Jan 31-Feb 2, 2017

San Diego, CA

Visit us at booth #1537!

[Learn more about DistribuTECH](#)

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