

Welcome to the presentation on:

Geomagnetically Induced Current (GIC) & Electromagnetic Pulse (EMP)

Dr. Ramsis Girgis



Short Description of the Presentation

Over the years, significant geomagnetic disturbances (GMD) caused power system blackouts in North America and other regions around the world. These events had created a certain level of concern in the electric power industry about the implications of geomagnetically induced currents (GIC) flowing into the neutrals of large power transformers.

The presentation will cover the following topics:

- How GIC is induced and factors that influence its magnitude
- Impact of GIC on power transformers and electric power system
- History of recent significant GMD storms
- Methods to protect against the impact of GIC
- Recent industry standards activities in this area

Dr. Girgis will also present a short overview of the nature of different types of electromagnetic pulses (EMP) and their possible impacts. The presentation is primarily for students.

Speaker's Biography

Dr. Ramsis Girgis is ABB's global leader of the R&D activities in the area of "Transformer Core Performance" and "Transformer audible noise". Ramsis earned his Ph.D. degree from the University of Saskatchewan, Canada, in Electrical Power Engineering in 1978. He has 50 years of R&D experience in the area of Power & Distribution Transformers and Rotating Machines. He has published and presented over 80 technical papers in IEEE, IEE, CIGRE, and other international journals and co-authored chapters in two electrical engineering handbooks on transformer design and transformer noise. He was awarded the IEEE Fellow Grade in 1986 and the IEEE Life Fellow Grade in 2012. In 2013, he was awarded the IEEE Standards Medallion for his Technical contributions to the IEEE Transformer Standards. In the nineties, Dr. Girgis was the Technical Advisor representing the US National Committee in IEC Power Transformer Technical Committee (14). Dr. Girgis' involvement with GIC started with the major GMD event of March 13, 1989 that hit the North East of North America.

Where:

**California State University
Northridge (CSUN)**
Jacaranda Hall – Room 1568
18111 Nordhoff Street
Northridge, CA. 91330

When: Thursday 27 October 2016

6:00 – 6:30 PM : Pizza & Networking
6:30 – 7:30 PM : Presentation

No Cost, Space is limited –

**Please RSVP at registration link
girgis2016.eventbrite.com**

Attendees pay only their car parking

For more information contact:

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Upcoming Events:

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