

The Institute of Electrical and Electronics Engineers (IEEE) Galveston Bay Section Meeting



Organized by GBS EMI/EMC Chapter

ONLINE Virtual Meeting

May 29th, 2020 12:00 PM-01:00 PM

TOPIC: "Grounding, and Electromagnetic Interference (EMI) Refresher" SPEAKER: Mike Zerkus, P.E.

PRESENTATION: A short refresher course in solving EMI and Grounding problems.

Over half of all problems in electrical, electronic and control systems are caused by a misunderstanding or a lack of understanding of Grounding, Shielding and EMI. This short refresher course will present basic concepts and mitigation strategies that will bring EMI mitigation from a black art to a rational science. Common misunderstandings and mitigation techniques will be discussed as well as the value of a "Grounding Plan" that allows project wide coordination between electrical, electronic and non-electrical groups.

Agenda:

- Safety Moment
- Ground, Neutral, Common and Return
- Neutral and Safety Ground in low voltage AC systems
- Electrical Grounding Systems Review
- What is EMI Electromagnetic Interference
- The 4 types of EMI and how to spot them
- Mitigation tools
- Mitigation tricks
- The Best Solution: The Grounding Plan

SPEAKER: Mike Zerkus has worked in areas ranging from aerospace with NASA to subsea oil and gas – R&D to Project Management. Mr. Zerkus graduated with a BS in Electrical Engineering from Louisiana Tech University in 1985 and is a Registered Professional Engineer (Control Systems) in the State of Louisiana. Mr. Zerkus was the Subject Matter Expert for Subsea Power, Grounding and EMI for Genesis Oil & Gas from 2007 thru 2020. Along the way Mr. Zerkus has started 5 companies, holds 9 patents and has published 27 articles.

COMPLIMENTARY REGISTRATION

**PLEASE register by COB Wednesday May 27th, 2020 by emailing your name, IEEE Member/non-member, and IEEE society member (if any) to Dr Zafar Taqvi, Z.TAQVI@IEEE.ORG

**All those registered will be provided on-line sign in details. <u>Meeting open only to those</u> registered

Our forthcoming FRIDAY'S section/chapter meetings- 1) CubeSat Mission to Study Solar Particles (CuSP)- AES/Distinguish Lecture,2) Virus and its Physiological Impacts (EMBS), 3) Smart City Considertions- ComSoc/Distinguish Lecture

> Reservations to attend this meeting should be made by email to: Z.Taqvi@IEEE.ORG

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