



*IEEE Vehicular Technology Society
Philadelphia Chapter*



September 27, 2023 Meeting Announcement

Topic: DC Traction Power Systems Design

Sponsors: IEEE Vehicular Technology Society (VTS) Philadelphia Chapter

Speakers: Fernando Soares, Traction Power North America Sales Lead, Powell Industries

Meeting date/time: Wednesday, September 27, 2023, 12:00 pm to 1:30 pm (Eastern Standard Time)

Location: *Virtual meeting* link posted on IEEE vTools prior to the meeting.

Cost of meeting: There is no charge for meeting attendance, only for PDH certificates.

Reservations: Attendees are required to register at: <https://events.vtools.ieee.org/m/372462>

A valid email address must be provided in order to receive the link for the meeting. If you have any questions, please contact Brandon Swartley at brandon.swartley@ieee.org.

Professional Development Hours: Attendees may apply for 1.0 PDH provided through the IEEE Certificates Program, accepted in all states. Send \$5.00 (USD) payment to Brandon Swartley via Zelle at brandon.swartley@ieee.org and complete online evaluation at <https://r2.ieee.org/philadelphia-vts/forms/>. Evaluation form must be completed and payment received within one week to receive PDH certificate.

Abstract: This presentation discusses the different elements, applicable standards, and common industry practices used in dc traction power substation design. The objective of this presentation is to provide designers and specifiers with helpful and technical knowledge on traction power substation equipment as well as recommendations for developing project requirements.

Agenda:

- Most Common North American DC Rail Systems and Categories
- LRT DC Traction Power Distribution Network Overview
- Introduction to a DC Traction Power Substation
- DC Traction Substation Grounding Practices
- Medium Voltage Switchgear
- Transformer Rectifier Units
- DC Switchgear
- DC Disconnect Switches
- Negative Grounding Devices
- Substation Automation System
- Power Control Rooms/Prefabricated Buildings

Speaker: *Fernando Soares* is Powell's North America Traction Power Sales Lead and Regional Sales Manager. Fernando has worked in the traction power industry for over 23 years and has executed many roles from project engineering, technical manager, proposals, and sales. He holds an electrical engineering bachelor degree and his specialty is power electronics.

IEEE VTS Philadelphia Chapter Officers:

Chapter Chair: Brandon S. Swartley, P.E., STV Incorporated, brandon.swartley@ieee.org

Vice-Chair: Harvey Glickenstein, P.E., F.I.R.S.E., h.glickenstein@ieee.org

Secretary and Treasurer: Robert Fisher, P.E., WSP, rbfisher@ieee.org