

I NSTITUTE OF E LECTRICAL AND E LECTRONICS E NGINEERS, Inc.

#### The Baton Rouge Section

# NEWSLETTER

Newsletter of the Baton Rouge Section of the Institute of Electrical and Electronics Engineers, Inc Feb, 2025

### 2025 BR SECTION CONTACTS

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Newsletter Editor Robert Walker

IAS Chapter Chair Vacant

**Professional Activities** Dennis M. Kates

**WIE Affinity Group Chair** Vacant

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**Student Branch Counselors** LSU- TBD SU – Dr.Fred Lacy

## Chairman's Message

# Please renew your IEEE membership for 2025.

Sign in <u>www.ieee.org</u>, select your name, then select Membership and Subscription Information or call 800-678-4333.

The January meeting was a joint meeting with IAS, ISA and WIE; held in person with a total of twenty-five (25) in attendance. Twenty-One (21) were IEEE members and four (4) were guests. Those in attendance included six (6) IEEE IAS, and three (3) ISA members.

The meeting topic was "Motor Protection in VFD Applications" presented by David Hunt Sales Engineer with Yaskawa America, Inc. - Drives & Motion Division. David reviewed terms and definitions along with the history of VFD topologies, and issues associated with VFD's along options for addressing. Drives using Pulse-width modulation (PWM) technology were developed in the 1960's and it was not until the late 1980's that drives with Insulated Gate Bipolar Transistor (IGBT) technology was developed and used commercially. He explained issues associated with using VFD's such as reflective wave phenomenon caused by motor cable length, bearing current, audible noise, common mode noise, and explored options to address each. He mentioned that motor cable distance recommendations differ for various manufacturers. He reviewed the pros and cons with using output reactors, delta voltage/delta time (DV/DT) filters and sinewave filters.

In closing David stated that not all inverter duty motors are created equal and briefly reviewed the differences between the NEMA MG1 revisions through the years and between motor design classes A, B, C and D.

# <u>February 13, 2025</u> LaContea Italiano Ristorante <u>Presentation Starts At 6:30pm</u>

To RSVP for the meeting click on link below

https://events.vtools.ieee.org/event/register/463791

Your RSVP for the meeting is important as this is an **in-person meeting**. The sign-in list is typically published based on those that registered as of midday Wednesday

(about 12 noon).

## **UPCOMING AGENDA**

- February 13, 2025 Power Factor Correction, Nick Losito InoLect
- March 13, 2025 To Be Determined, Robert Sorbet Stafford Electrical Sales
- April 10, 2025 Planning the Future: A Cost-Effective Approach to Modernizing Aging Switchgear, David Parker Schneider Electric
- May 8, 2025 Grounding for Electrical Power Systems (Low Resistance and High Resistance System Design), Manjeet Malik I-Gard Corporation
- June 12, 2025 Arc Flash Protection with Current Limiting Fuses, Joey Giles Electrical Equipment Enterprises

Thanks. Robert Walker

# **MEETING NOTICE**

Date: Thursday February 13, 2025

Place: LaContea Italiano Ristorante

Time: Social.....6:00pm

Speaker Presentation......6:30pm

Dinner: Cash or Check only (\$20 members/ \$30 non-members/ Free IEEE students members)

AGENDA: Meeting Sign-in include if member of IEEE, IAS, ISA, WIE or student.

- IEEE/Region 5/BR Section 2025:
  - Election Upcoming IEEE changed process all online
  - Candidates nominations/initial candidates/petition for nomination/final candidates
  - Voting
  - Volunteers needed -- see open positions Page 1
  - Ethics meeting location
- Conferences, Webinars, Professional Activities
  - o 2025 IEEE Electrical Safety Workshop Jacksonville, FL March 3-7, 2025
  - o 2025 IEEE Green Tech / IEEE Student Competition / IEEE R5 Annual Meeting Mar 26-30 Wichita, KS
  - o 2025 IEEE Congressional Visit Day (CVD) April 8-8 Washington DC
  - o 2025 IEEE IAS PCIC Conference Sept 22-25 in Dallas, TX
  - IEEE Controls Systems Society -2026 Conference New Orleans
- CONTINUING PROFESSIONAL DEVELOPMENT PRESENTATION

# "Power Factor Correction"

# Presented by: Nicholas A. Losito, Jr., C.P.Q. – Senior Engineer

## ABSTRACT of PRESENTATION

This technical presentation will discuss Power Factor Correction including the following

- What is Power Factor
- Power Triangle
- Fundamentals Of Power Factor
- The Effects Of Low Power Factor
- Facilities With Poor Power Factor
- How To Correct For Poor Power Factor
- Parallel Resonance
- Protected Power Capacitor Network
- Equipment Photographs

## **BIOGRAPHICAL DATA of PRESENTER**

Nick Losito is a graduate of Rensselaer Polytechnic Institute with a Doctorate in Philosophy in Chemical Engineering. His Bachelor of Science degree was obtained in Physics, and his doctoral studies were in classical thermodynamics. He is a member of the Association of Energy Engineers (AEE), and Certified Power Quality Professional with the AEE, and a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE). He contributed to the IEEE Standard 1531-2003 Guide for Application and Specification of Harmonic Filters.

Nick has over 30 years of experience designing and manufacturing low-voltage, medium-voltage, metal-enclosed harmonic filter and power capacitor banks. He also has experience designing and manufacturing medium-voltage and high-voltage, open-air (stack-rack) harmonic filter and power capacitor banks and making power quality measurements on electrical systems. He has over 12 years of experience performing electrical power system analysis using PowerSys Solutions EMTP and ETAP software packages.

inoLECT welcomed Nick in 2020 as a Senior Professional Engineer and subject matter expert in Power Quality Solutions. His valuable experience and extensive knowledge in this field have helped us establish a market presence that will continue to grow and develop with our company. His extensive knowledge, dedication to accuracy, attention to detail, and exemplary customer service make him a valued asset to the inoLECT Team.

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## 2024-2025 Officers of the IEEE LSU Branch

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2024-2025 Officers of the IEEE SU Branch

Southern Branch Officers list is being updated. Counselor: Dr. Fred Lacy – fred lacy@subr.edu Chair: Langston Fogg langston.fogg@sus.edu ViceChair: Darius Taylor darius.taylor@sus.edu Secretary: Devin Sloan devin.sloan01@sus.edu Treasurer: Knykolas Ross knykolas.ross@sus.edu ProgChair:LaBreya Brumfieldlabreya.brumfield@sus.edu FundChair: Jaleicia Miller Jaleicia.Miller@sus.edu ComChair: Ashiriah Williams ashiriah.williams@sus.edu MemberChair: Keyonna Brown\_keyonna.brown@sus.edu

RSVP (Non-Members and Members) via the link <u>BEFORE</u> February 13, 2025 If you have issues, please email robert.walker@ieee.org