

# NEWSLETTER

Newsletter of the Baton Rouge Section of the Institute of Electrical and Electronics Engineers, Inc Dec, 2024

#### 2024 BR SECTION CONTACTS

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# **Newsletter Editor**

Robert Walker

# IAS Chapter Chair

Charles Darnell

#### **Professional Activities**

Dennis M. Kates

## **WIE Affinity Group Chair**

Vacant

#### 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.

We are sad to announce the death of Charles Tinkler who passed away on Friday November 22, 2024. Charles worked for Crawford Electric Supply and was a member of IEEE. He made an impression on everyone he met and will truly be missed by all who knew him.

The November meeting was a joint meeting with IAS, ISA and WIE; held in person with a total of twenty-seven (27) in attendance. Eighteen (18) were IEEE members and nine (9) guests. Those in attendance included six (6) IEEE IAS, three (3) ISA members and one (1) student.

The meeting topic was "Battery Technology Comparison" presented by David Hood Sales Manager with Saft Oil & Gas IMI Division. A battery is an electrochemical energy storage device that uses an active material and electrode. Batteries can fail either as an open circuit (no current path/no power) or a short circuit (healthy cells continue to provide power). David listed Lead Acid, Valve Regulated Lead Acid, Nickel Cadmium and Lithium Ion as types of batteries in industrial use and gave an overview of the various battery technologies. The first rechargeable lead acid battery was invented by Gaston Plante in 1859, the first rechargeable nickel cadmium battery by Waldemar Junger in 1899. The normal service life for VRLA batteries are 3-7 years, Flooded Lead Acid 12-15 years, NiCad 25+ years and Lithium 2-10 years.

Considerations for a battery selection should include temperature conditions, expected life, maintenance cost, storage time, weight, and the cost of failure. General recommendations for batteries are to use lead acid when it makes sense economically and when life and reliability are not major concerns, use nicad when you need rugged, reliable long life, and use lithium ion when footprint and weight are your biggest concern.

# <u>December 12, 2024</u> LaContea Italiano Ristorante Presentation Starts At 6:30pm

To RSVP for the meeting click on link below

https://events.vtools.ieee.org/event/register/451330

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**

- December 12, 2024 ARC Flash Mitigation, Matt Proctor Root 3 Power LLC
- January 9, 2025 Dealing with Issues associated with VFD's, David Hunt Yaskawa
- February 13, 2025 Power Factor Correction, Nick Losito InoLECT

Thanks. Robert Walker

# **MEETING NOTICE**

Date: Thursday December 12, 2024 Time: Social......6:00pm Place: LaContea Italiano Ristorante 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.

- Charles Tinkler passed away Friday November 22, 2024.
- IEEE/Region 5/BR Section 2024:
  - o Volunteers, Website development committee
  - o IEEE LSU Presentation / Southern Presentation
  - Election Upcoming
- Other
  - o Conferences, Webinars, Professional Activities
  - o 2025 IEEE Green Tech / IEEE Student Competition / IEEE R5 Annual Meeting Mar 26-30 Wichita, KS
  - o 2025 IEEE IAS PCIC Conference Sept 22-25 in Dallas, TX
- CONTINUING PROFESSIONAL DEVELOPMENT PRESENTATION

# "Arc Flash Mitigation with Protective Relays"

# **Presented by: Matt Procter**

### **ABSTRACT of PRESENTATION**

This seminar focuses on the critical role of protective relays in reducing arc flash incident energy, providing participants with a comprehensive introduction to the principles of electrical protection and control schemes. Attendees will learn how protective relays can detect and isolate faults rapidly, thereby minimizing the energy released during arc flash events. The seminar covers fundamental ANSI protection functions and their applications in arc flash mitigation strategies, adhering to IEEE standards. Additionally, participants will explore advanced relay capabilities, such as custom logic programming, real-time arc flash detection, COMTRADE data recording, optimized input/output (I/O) configurations, and modern communication protocols. By the conclusion of the seminar, attendees will be equipped with practical knowledge to design and implement protection schemes that enhance safety, reduce arc flash hazards, and improve system reliability.

#### **BIOGRAPHICAL DATA of PRESENTER**

Matt Proctor is a co-founder of Root 3 Power, a company based in Houston, TX, providing electrical engineering consulting and field services since 2019. With over 27 years of experience in the electrical industry, Matt began his career as an intern at Mississippi Power Company in 1997. He earned a Bachelor of Science in Electrical Engineering (BSEE) from Louisiana State University in 2001.

Matt's early career included four years with Power & Control Systems in Baton Rouge, Louisiana, where he conducted power system studies and developed protective relay settings for transmission lines and substations. From 2006 to 2010, he worked with Jacobs in Houston, Texas, designing electrical distribution systems for a range of industrial facilities. From 2010 to 2018, Matt served as a Sales Application Engineer for GE Multilin, traveling across the U.S. to provide technical expertise in power system protection and control solutions. He is a licensed Professional Engineer (PE) in five states and continues to apply his extensive experience and technical skills to support Root 3 Power's clients.

Matt Procter Root 3 Power 7676 Hillmont Street, Suite 122 Houston, TX M. (346) 225-3210 Website. root3power.com

#### Ramblings and etc.

- Meeting notices are emailed each month.
- Please RSVP thru the link. If you cannot RSVP thru the link or have questions, please email, or call Robert Walker or one of the other officers.

#### 2024-2025 Officers of the IEEE LSU Branch

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Vice President – Miguel Gutierrez mguti25@lsu.edu

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**Advisor:** TBD

# 2024-2025 Officers of the IEEE SU Branch

Southern Branch Officers list is being updated.

Counselor: Dr. Fred Lacy — <a href="mailto:fredlacy@subr.edu">fred lacy@subr.edu</a>
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