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Florida West Coast Section (FWCS) Please Check the Website Often for UPCOMING EVENTS (Front Page Right Column) <https://r3.ieee.org/fwc/>

# The SunCoast Signal

The Institute of Electrical and Electronics Engineers, Inc.

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### PE Corner

Art Nordlinger, PE, Life Senior Member  
**You Renewed Your License; Now What?**

Professional Engineer license renewal in Florida is now done for another cycle. Hopefully, you have completed your continuing education requirements and renewed your license. Now what? If you are like many of us, you won't think about continuing education for another 20 or so months and then rush to get your hours done before the next renewal deadline. What are you going to do with all that spare time until then? Let me make a couple of suggestions.

*You can earn double the hours by presenting a technical seminar to your peers under IEEE's continuing education program. Every one of us has an area of expertise. Sharing your knowledge with others provides personal satisfaction, as well as earning hours toward your next license renewal. Talk to me or any IEEE officer about topics that you can present and earn some hours.*

*Lend your spare time to IEEE as an officer or volunteer. Get involved! You'll help yourself, your peers, and IEEE as a whole. You can earn four Continuing Education Hours (CEHs) each renewal cycle for servicing as a professional society officer.*

*Mentoring a young engineer, or an engineer intern, is a very rewarding way to give back to the profession. There are many ways in which you can help our younger peers to advance in their careers.*

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Next ExCom Meeting  
Tuesday, May 2, 2023  
Google Meet  
Register with vTools  
<https://events.vtools.ieee.org/m/356840>

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*For example, you can encourage new engi-  
neers just out of school to take the FE (EIT) ex-  
am now while the information is still somewhat  
fresh.*

*Few of us knew early in our careers where  
our path would ultimately lead. Those just start-  
ing out may not know at this early point in their  
careers whether they'll need to have a PE license  
someday or not.*

*We all know that if you don't take the FE ex-  
am shortly after graduation, it's a pretty monu-  
mental task for most engineers to "re-learn"  
enough of what they learned in college to pass  
the test. Just the thought of studying all of that  
material in order to pass can be daunting.*

*A recent change to the licensure rules has  
"uncoupled" the experience requirement from  
registering to take the Principles and Practices  
exam (the PE exam). This change may benefit  
some new engineers in completing the exam and  
experience requirements for professional licen-  
sure.*

These are just a few suggestions of the end-  
less opportunities that we all have to give back to the  
industry. I hope that you are able to avail yourself of  
some of these in the near future.

Whether you are a PE looking to attain re-  
quired CEHs, or an engineer looking to learn some-  
thing new or keep current with the latest trends in the  
profession, IEEE has seminars that will meet your  
needs. Sign up now!

**THE SUNCOAST SIGNAL**, published monthly by the Florida West Coast Section (FWCS) of the Institute of Electrical and Electronics Engineers, Inc. (IEEE). **Please Note that the SUNCOAST SIGNAL is sent each month to ACTIVE members of the IEEE Florida West Coast Section. So to continue receiving the SIGNAL please keep your membership Active, meaning, renew your membership when it becomes due.** Annual subscription is included in the IEEE membership dues. The opinions expressed, as well as the technical accuracy of authors, advertisers or speakers published in this newsletter are those of the individual authors, advertisers, and speakers. Therefore, no endorsement by the IEEE, its officers, or its members is made or implied. All material for THE SUNCOAST SIGNAL is due in electronic form by the end of day of the 1st Monday after the 1st Tuesday of the month, i.e. the ExCom meeting, preceding the issue month.

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# Certificates of Appreciation and Recognition

To the Joint Chapter Power & Energy Society /  
Industry Applications Society (PES/IAS)

Robert DeMelo, Current Chair PES/IAS

Claude Pitts, Former Chair PES/IAS

*In Recognition and Appreciation for your Valued Services and  
Contributions to the*

*IEEE PES/IAS and the Florida West Coast Section*

*Conducting Many Intense and Diverse Management, Technical and, Particularly, Professional Development Activities, Aimed at fulfilling the IEEE Goals of Advancing Technology for Humanity*

Robert DeMelo has a Bachelor of Science Degree in Electrical Engineering from the University of South Florida (Go Bulls!). Robert has been in the power industry for over 16 years assuming various roles in transmission planning, system stability, system protection and control, transmission rates, transmission tariffs and agreements, and transmission services.



Robert is currently the Senior Manager of Transmission Services for Seminole Electric Cooperative, Inc. in Tampa, FL where he is responsible for an annual transmission services budget of over \$180 million, oversees transmission reliability, and the development of strategic projects. Robert is an active member of the Institute of Electrical and Electronics Engineers (IEEE) Florida West Coast Section (FWCS) and currently serves as Chair of the Power & Energy Society/Industry Applications Society (PES/IAS) chapter.

Claude V. Pitts, PMP has 40 years of Utility Operational, Application Engineering and Subject Matter Expertise in Power System Protection and Control (P&C), DER/Microgrid, Substation, Field Automation, SCADA Engineering Applications and is a Project Management Professional. Claude is currently working with Bridge Source Utility Solutions as ADMS Sr. Architect – Practice Lead as an advisor to several major utilities.



Claude has been an active member of IEEE and is a Senior Member. Claude was recognized as Florida West Coast Power and Energy Society Outstanding Engineer in 2012 and is Chair Emeritus of the Florida Council. Claude is Past Chair of the Florida West Coast Section, Past Chair of the FWCS Power & Energy Society/Industrial Applications Society, Past Chair of the Florida Council and served IEEE Region 3 as Area 4 Chair and as Life Members Coordinator. Claude served as IBEW Council U8 -682 Chief Steward. Claude is currently serving as Treasurer to Florida West Coast Section and member of the Tampa Bay Engineering Week Banquet Committee.

## PES/IAS ExCom

Thursday, May 25, 6:30 am – 7:30 am

Virtual

<https://events.vtools.ieee.org/m/333496>

Contact/Questions: Robert Demelo, [robert.demelo@ieee.org](mailto:robert.demelo@ieee.org)

## A Brief History of Power Engineering

Samuel Morse's first US telegraph line connected Washington and Baltimore in 1844. By 1866, a telegraph cable connected the United States and Europe. Alexander Graham Bell followed in 1876 with a telegraph that talked—the telephone.

Electric power and light systems arose primarily from Thomas Edison's work. Edison opened his first electric power plant in New York in 1882. Within a decade, electric power had spread to every corner of the globe, with many new applications. The AIEE became dominated by power engineers.

N. S. Keith distributed a proposal to interested parties for an American national scientific society. The proposal was supported by many and an initial meeting was held in New York in April 15, 1884. An organizing committee was formed.

A second organizing meeting was held on May 13, 1884. A slate of officers was presented and voted upon. Norvin Green, President Six Vice Presidents were also selected Alexander Graham Bell, Charles R. Cross, Thomas A. Edison, George A. Hamilton, Charles H. Haskins, and Frank L. Pope

**In 1884 The American Institute of Electrical Engineers is Founded.** A small group of individuals met in New York to found the AIEE to advance the new field and represent the US at the 1884 International Electrical Exhibition in Philadelphia. Norvin Green of Western Union became the first president.

While the movement to form the American Institute of Electrical Engineers was occurring in America, similar events were happening worldwide.

- There was excitement about the uses of electricity around the world. Many organizations were being formed to bring practitioners and researchers together, create standards and disseminate information.

Electrical Engineering Education Becomes Established. MIT established the first electrical engineering program in 1882 in the physics department. Within a few decades, there were dozens of independent departments in universities across the country, and young engineers typically began their careers with university education. Curricula were generally heavily oriented towards power engineering. AIEE established the grade of student member, and in 1903, authorized the formation of campus-based student branches.

Through standards, codes of ethics, local sections, technical conferences and publications, the AIEE served its members and their growing profession. From its founding in 1884, AIEE operated essentially out of New York City. The first two sections were established in 1902 in Chicago, IL, USA and Ithaca, NY, USA.

In 1903, the first non-American section was formed in Toronto, Canada.

In 1891, standardization was started by forming a committee on units and standards.

The first technical committee in the AIEE was formed in 1903 and was named the High Voltage Transmission Committee.

**The Birth of Radio.** Radio, a new electrical technology, arose in the first decade of the twentieth century. Wireless telegraphy using spark transmitters was the original application, but particularly after the invention of the vacuum tube amplifier, it began to be used to transmit speech and music.

With the new industry came a new society in 1912, the Institute of Radio Engineers or IRE, modeled on the AIEE, but devoted to radio, and later increasingly to electronics.

IRE founders intended to initiate an international organization from the beginning.

- ♦ *The Proceedings of the IRE* was issued in 1913 to disseminate technical information to members in practice and in research.
- ♦ IRE organized regional and professional groups in 1914 and 1948, respectively.

AIEE and IRE serve their members and their professions. To a large extent, the IRE modeled itself on the AIEE. Both societies ran technical conferences, established local chapters, published journals, promulgated standards, and encouraged the training of student engineers.

**AIEE + IRE = IEEE.** The idea that there should be one organization for all electrical engineers was an old one, and became more powerful as the profession expanded beyond its separate roots in power and radio. In 1962, the boards and memberships of the two institutes agreed to merge. On January 1, 1963, the IEEE, or Institute of Electrical and Electronic Engineers was born with 150,000 members, 140,000 of whom were in the United States.

AIEE was organized into technical divisions and committees. The AIEE Power Division was one of them. Initially, the AIEE Power Division chose to stay outside of the new IEEE Group Structure.

The newly formed IEEE organized the technical divisions into units known as Professional Technical Groups or PTGs. In late 1963, PTG – Power was formed and became known as the Power Group headed by a Council-elected chairman.

**In early 1970, the IEEE Board of Directors (BoD) approved the formation of Societies – beginning with the Power Engineering, Computer, Electronic Controls Societies.** The IEEE BoD explained that Societies would allow for the merging of closely related or declining groups and to bring non-IEEE groups into the IEEE.



**Digital Substations  
Concepts, Designs and Benefits  
\*\*Virtual Event\*\***

**Date:** Friday, May 19, 2023  
**Time:** Webinar: 12:00PM – 1:30PM (EST/EDT)  
**Speaker:** Wayne Hartmann – Solutions Growth Leader - GE Grid Solutions  
**Location:** Online – meeting invitation will be emailed to attendees prior to the webinar  
**Cost:** Free - No CEH's provided for this event.  
**RSVP:** Online at: <https://events.vtools.ieee.org/m/356923>  
**Questions:** Kayla Allemang - [Kalleman@ieee.org](mailto:Kalleman@ieee.org)

**Abstract:** Why Digital Substations? With the increasing need to process large amounts of data across the power grid to improve operation and maintenance, Digital Substations are becoming an integral solution. This webinar will dive into the concepts, designs, and benefits of a digital substation. The webinar will also explore standardization, centralization, and redundancy in the world of digital substations, including looking at the benefits such as:

- ◆ Opportunity for improved indices due to improved redundancy tactics
- ◆ Extends testing intervals (NERC PRC-005)
- ◆ Provides greater protection system visibility

- ◆ Improves safety
- ◆ Can improve commissioning practices and reduce cost (OPEX)
- ◆ Can improve maintenance practices and reduce cost (OPEX)
- ◆ Eliminates wiring runs from the yard elements to the control house sited relay panels
- ◆ (CAPEX, signal integrity)
- ◆ Decrease in wire, terminations, trenching and conduit (CAPEX)
- ◆ Decrease in engineering and labor associated with above and relay panels (CAPEX)
- ◆ Large opportunity for standardization in design reducing engineering hours (CAPEX)

**Speaker: Wayne Hartmann** is Solutions Growth Leader (NAM) for GE Grid Solutions. In this role, he explores the application of new technologies in protection and control with Electric Utilities, Industrials, and the Consultants that support them. Wayne also provides market research, and input for new product development and is actively working with the Sales and Application Teams.

Before joining GE Grid Solutions, he was a P&C SME at Duke Energy, and performed in Application, Sales and Marketing Management capacities Beckwith Electric, PowerSecure, General Electric, Siemens Power T&D and Alstom T&D.

Wayne is a Senior Member of IEEE and serves as a Main Committee Member of the Power System Relaying and Control Committee (PSRCC) for over 30 years.

- ◆ Chair Emeritus of the IEEE PSRCC Rotating Machinery Subcommittee ('07-'10).
- ◆ Contributed to numerous IEEE Standards, Guides, Reports, Tutorials and Transactions,
- ◆ Delivered Tutorials at IEEE Conferences, and
- ◆ Authored and presented numerous technical papers at key industry conferences.
- ◆ Contributed to McGraw-Hill's "Standard Handbook of Power Plant Engineering."



**Protection Systems of Solar Collector Substations and Principles of Fiber Optics**  
**\*\*In-Person Event – 2023 FECA Engineers Conference\*\***

**Date:** Monday, June 12, 2023  
**Time:** 8:00am – 5:00pm  
**Speaker:** David Bousot, PE - Fellow - Supervisor of System Security, Relay and Control  
 TECO Mike Cunningham – Communications Consultant - Qualus  
**Location:** SandPearl Resort - 500 Mandalay Ave., Clearwater Beach, FL 33767  
**Cost:** \$150 Members, \$220 Non-Members, \$20 Students  
**CEH Credits:** Eight (8) CEHs provided for this event. Florida provider #0003849.  
**RSVP:** Online at: <https://events.vtools.ieee.org/m/356351>  
**Questions:** Robert DeMelo - [Robert.demelo@ieee.org](mailto:Robert.demelo@ieee.org)

**Abstract:** Protection System of Solar Collector Substation - high penetration of substation grade solar generation fields, during the last few years, have imposed over the electrical power system the need to reevaluate or redefine, in some instances, protection systems. In this seminar, we will present a synthesis of typical substation protection schemes and its related equipment. We'll also review some of the technical particularities of Inverter Based Resources (IBR) and how they interact with the power system. We'll be exploring NERC PRC standards that regulate over solar generation protection and its interconnection with the power system.

- ◆ System protection review. Principles, and equipment: CTs, PTs, relays, DC system, telecommunications and SCADA.
- ◆ Solar generation vs rotating machine generation
- ◆ Solar Stations typical designs and protection schemes
- ◆ NERC PRC standards overseeing solar substations
- ◆ Principles of Fiber Optics – topics during this session will cover safety and work practices, media converters, testing standards and equipment, fiber principles, cleaning and inspecting, pushing light, lessons learned (fiber done right and wrong), fiber optic components, and fiber terminations

### Speakers

**David Bousot, PE** is a Fellow Engineer and currently the Supervisor of System Security, Relay and Control for Tampa Electric (TECO). David has 20 years in the industry and is currently mainly involved with relay settings and system operation troubleshooting in transmission networks 69 kV through 230 kV and generation. Licensed by the Florida Board of Professional Engineers. IEEE member and participant of PES PSRC, including groups D36, C18 and H22.

**Mike Cunningham** is a communications consultant with Qualus. Mike has vast experience in the communication space working at various organizations such as TRC, E&T Engineering, Fennel Engineering, Power Grid, and Bell Labs. Mike has worked on three Library of Congress/ARRA National Projects, he is a member of Governors High Technology Council, and member of IEEE and Florida Telecommunication Managers. Mike is a certified fiber optic engineer and in his spare time is a musician and bandleader.



IEEE

Florida West Coast Section



## Does Engineering Have Gender?

**Date:** Friday, May 12, 2023  
**Time:** Webinar: 12:00PM – 1:00PM (EST/EDT)  
**Speaker:** Hulya Kirkici, PhD., IEEE Fellow - Professor, University of South Alabama  
**Location:** Online – meeting invitation will be emailed to attendees prior to seminar  
**Cost:** Free  
**CEH Credits:** No CEH's provided for this event.  
**RSVP:** Online at: <https://events.vtools.ieee.org/event/register/350589>  
**Questions:** Diana Aristizabal, [dianaaristizabal@ieee.org](mailto:dianaaristizabal@ieee.org)

**Abstract:** This talk will explore trends in minority and underrepresented groups' academic presence, their contributions to the engineering field, and the impact of academic research on future engineers, scientists, and technology professionals. It is clear that engineering is a challenging profession, but it is a lot more challenging for some groups of the population than others.

The engineering profession starts early on, with education, then research, innovation, and finally products we use every day. There are many technologies we are accustomed to that are investigated by researchers at academic institutions, developed by industry, and driven by public policies and consumer use. In any of these, there's no mention if gender differences are reflected or whether minority groups' needs are considered

**Speaker:** Hulya Kirkici is Professor and the Department Chair of Electrical and Computer Engineering at the University of South Alabama. She received B.S. and M.S. in physics from Middle East Technical University, Turkey; and Ph.D. in electrical engineering from Polytechnic University (currently NYU), NY. Previously, Dr. Kirkici was a Professor of electrical and computer engineering at Auburn University, visiting scholar / Faculty Fellow at the Air Force Research Laboratory – Wright Patterson Air Force Base, and visiting scientist/engineer at NASA, Marshall Space Flight Center, Huntsville, AL. Dr. Kirkici's research interests are electrical insulation, high-frequency dielectric breakdown, and repetitive pulsed power. She has published over 100 peer-reviewed journal and conference articles, and given plenary and invited talks nationally and internationally (Turkey, Japan, S. Korea, Australia, and China).

Award, IEEE William G. Dunbar Award, and the IEEE Sol Schneider Award. Dr. Kirkici is a member of American Physical Society (APS), Sigma Xi Scientific Honor Society, Eta Kappa Nu Honor Society, and American Association of University Women (AAUW).

Dr. Kirkici served as the President of the Southeast ECE Department Heads Association (SECEDHA) (2020, 2021) and is the Secretary of the ECE Department Heads Association (ECEDHA) 2022-23 academic year. Dr. Kirkici is Governor-at-Large of the IEEE-HKN Board, and a member of the IEEE-HKN Bridge Magazine Editorial Board (2020 – present). She served as a member of the IEEE N&A Committee and was the IEEE Vice President – Publications (2019); President of IEEE DEIS (2009-2010), Vice President of IEEE Sensors Council (2014-2015), and has served on the IEEE Access Editorial Board (2014 – 2019), among other volunteer positions.

Dr. Kirkici is a Fellow of IEEE and recipient of the IEEE Eric O. Forster Distinguished Service

## Interview with Todd Arnold, an IEEE Senior Member and IBM's Master Inventor and a Holder of 71 Patents

*by Catherine Holt, a sophomore year student at the Florida Polytechnic University*

If you happen to use an ATM or a debit/credit card, that means you have absolutely used something that Todd Arnold designed! No need to introduce Todd Arnold to you as it is merely enough to say that he received 71 patents and was the Master Inventor at IBM!

When Todd Arnold first got into electrical engineering, he was a high school student interested in discovering how things worked. He would build electronics using any parts one could find at nearby stores. Being without the internet, Arnold found what information he needed in books. In high school, he joined a program at Case Western Reserve University (Case Institute of Technology) to learn about engineering and ultimately attended there for college because of that and its scholarship program. He came out of school ready to go into the field, figuring that a master's degree was an option he could come back to. However, Arnold never did that; he never saw the need to. He started at IBM and continued there until retirement.

Initially, Arnold worked on IBM's high-speed check sorters, which would scan 2000-4000 checks per minute. He designed algorithms for them and worked on OCR scanning, allowing the machines to read the handwriting on the checks. For seven years, he designed control systems for the sorters. He was then recruited into an advanced technology research group at IBM, where he worked on cryptography to protect banking information both physically and logically. He explained that if someone is going to get into the data, it is either by knowing the keys or getting around the security measures altogether, so his goal was to prevent both of those. It took creativity, and he said, "No book can tell you what to do."

He and his team discovered and created protections for attacks people know about and mitigate today. For one design, he worked on flexible mesh security with microscopically fine lines printed in layers and alternating directions to protect from physical attacks. He likes to say that even the tiniest drill bit would be detected. The data would then be

destroyed before someone could get to it. For six generations, he worked on this, going from research to product development and becoming an IBM Master Inventor and leader of this work for his last 20 years there. His first set of groundbreaking products was developed in 1989.

For the last 20-30 years of his career, Arnold has also been active in setting cryptography standards, and even now has been made a member Emeritus so that he can still participate. While approaching retirement, he joined a program at IBM to slowly retire while passing on information to future engineers and recorded courses on cryptography for them to learn from. He also wrote and contributed to papers for IBM.

While there is no one accomplishment or design that Arnold is most proud of, he is proud of all the patents he has gotten, the groundbreaking technology he and others developed, and the awards he has received. He is particularly proud of the IBM Outstanding Technical Achievement award and the Lifetime Achievement Award from the Standards body. Throughout his career, IEEE has benefited him by keeping him up to date on technology through its magazines and publications. He advised me that you probably won't end up where you think you will and that one should always be learning. The ability to learn is incredible when you can't predict where you'll end up.

Additionally, he predicts that his field of cryptography will continue its trend of putting more features into the same type of devices so that the engineers will have more to keep track of, and it will be harder to do new things without breaking something else. Finally, one mistake Arnold wished he would have avoided is that he wished he had started writing patents earlier, as he had some neat designs but didn't think they were good enough for patents. Today, he is retired, though still working with the Standards body, and his interest in electronics has never died. He wants to tinker with electronics as he did in high school and is deciding what to work on.



# ROBOFEST

*ROBOFEST* is a Multi-event Robotics Competition that was founded by IEEE member Dr. CJ Chung at Lawrence Tech University in Michigan. It usually consists of the Game, RoboParade, and Exhibits with autonomous robots built by students in Grades 4 to 12. Emma Alaba had been organizing the local competitions for 15 years in Tampa Bay. The IEEE FWCS Robotics and Automation Society (RAS) Chapter has been volunteering since 2012 from judging, photography, and score-keeping up to promoting in the Signal Newsletter and FWCS Website. Emma announced her desire to retire after this year. She exclaimed the June 2017 World Championship at St. Pete Beach Community Center was the high point in her life as a STEM Organizer. We have done everything from the World Championship, Regional Competition, RoboParades, Sumo Challenges, and World Robot Olympiad. We returned to St Pete Beach for the 2023 Regional Competition on March 25<sup>th</sup>.

I arrived before 8am and helped prepare the Robo-Parade Loop of tables. There was to be no gap between the tables. Rose Mack and I stuck double-sided tape between the tables, laid card stock paper on the top, large roll of white paper, then black electric tape for the path at 35cm in the center. David Steele brought his full size remote control R2-D2 which was a photo opportunity magnet for children and their parents. He told me the beeps were on a cassette tape when he built it now it comes through a Blue-tooth phone controller. David has also been known to construct diorama models also displayed at earlier Robofest events over the years. Rich Collins, Son of the Late William "Bill" Collins, was one of the judges. Bill Collins was a USF Alumnus and a long-time member of FWCS RAS who always asked challenging questions to the USF undergraduates who would compete in Robot Events. Returning Robofest veterans included Dan Kinzer, Fred Miller, Alicia Ponds, Lori Carter, Roxan and John Reznor who were judges and scorekeepers. Our newest IEEE member, Barrett Werner volunteered as a Game Judge. Barrett exclaimed, *"I really enjoyed the event and glad I could help out!"*

After 9:45am, Rose Mack led the opening ceremonies. The National Anthem sung by Tampa Teacher Dan Kinzer. Everyone thanked Emma Alaba for her dedication as Robofest Organizer. Rose handed Emma a bouquet of flowers on behalf of the committee.

I took group photos of each. First Place winners were encouraged to go to the World Competition in May 11-13, 2023 at Lawrence Technological University. Everyone went outside to take the group photo. I took it from the stairs showing the palm trees of St. Pete Beach. Emma Alaba was elated the event went well and very thankful for all of the Robofest supporters and friends.

I interviewed four student teams who built robots for the Exhibition. One had a robotic scorpion, a robot hand, and a garbage truck with a garage. The Supply Chain Challenge Game Participants built robots to clear obstacles, bring order to the port and restocking the store. John Reznor was head judge for the game. The obstacles included aluminum soda cans, tennis balls, and batteries. Dan Kinzer was the head judge for the ROBOPARADE. The design theme was "Animation" and each robot had to follow the black line from their photo-sensors. Dennis Miya-wa head judge for the Exhibition.



*Continued on Page 7*

*Continued from Page 6*

We took a 30 minute lunch break with Pizza Hut Pizza and cupcakes. I enjoyed outdoor picnic area with Barrett Werner, Roxan Reznor, and Dan Kinzer. After lunch, the second round of the RO-BOPARADE and the Supply Chain Game took place. Each coach introduced their teams from Westlake Christian School (Paul Weaver), Belleview Middle School (Anthony Ness), and Clearwater Public Library (Amber Priester). Alicia Ponds tallied up the official scores. Awards were given out for People’s Choice, Exhibits, RoboParade, and the Game. The winners were announced and received trophies.

I took group photos of each. First Place winners were encouraged to go to the World Competition in May 11-13, 2023 at Lawrence Technological University. Everyone went outside to take the group photo. I took it from the stairs showing the palm trees of St. Pete Beach. Emma Alaba was elated the event went well and very thankful for all of the Robofest supporters and friends.

**Trophy Winners:**

**Jr Game: Supply Chain Challenge**

1st place - 1752-3 Gigabots

**Jr Exhibition**

1st Place 3271-9 Robocat Mountain Lions

**RoboParade**

1st Place - 4381-3 TNT Boom  
2nd Place - 4381-2 The Operation

**People's Choice Award**

1752-2 Master Builders Jr



**Senior Member Roundup  
Saturday, May 20, 12:00 pm - 4:00pm  
OnLine**

**Register here: <https://events.vtools.ieee.org/m/355590>**

**Contact / Questions: [andrew.seely@ieee.org](mailto:andrew.seely@ieee.org)**

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<b>May 2023 - Calendar of Events</b> <i>(For more information see "Inside the SunCoast Signal" → Page 1)</i>						
<b>Sun</b>	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thu</b>	<b>Fri</b>	<b>Sat</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
		*FWCS ExCom →Page 1				
<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
	*Signal Inputs Due End of Day				*Does Engineering Have a Gender? →Page 10	
<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
						* Sr. Member Roundup →Page 11
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
				*PES/IAS ExCom →Page 4		
<b>28</b>	<b>29</b>	<b>30</b>	<b>31</b>			