IEEE Region 2

◆ **IEEE**

INSIDE THIS ISSUE

- *IEEE R2 Celebrates National Mentoring Month*
- *Technology forecasts for 2023 and Beyond*
- *Hot Topics of the Month IEEE-USA, IEEE, and Region 2*

IEEE Region 2

Dr. Drew Lowery

National Mentoring Month

It is national mentoring month around the globe. IEEE members are invited to partake of the IEEE Mentoring Program. The IEEE Mentoring Program is an online program that pairs qualified IEEE members together in establishing a mentoring partnership for guidance in multiple areas such as career, education, leadership, and volunteering. The program is completely self-serve and is implemented via IEEE Collabratec® (home of the IEEE Member Directory). Participation in the program is open to all IEEE members (all grades) and Society affiliates. Mentoring partnerships are particularly beneficial in building strong connections between individuals who share professional interests. IEEE offers a program that is specifically tailored to suit the international community. More information can be found <u>here</u>.

Welcome Message from Region 2 Director: Dr. Drew Lowery

We have all become fully aware of the challenges brought forward by the global pandemic of the past years and we must continue to look for opportunities in these challenges. IEEE is a volunteer member driven and staff supported organization. We saw its true reflection in the past few years where volunteers and staff together made unimaginable opportunities available to its members. Numerous events such as webinars, conferences, congresses, competitions, awards ceremonies, and many other activities were almost instantaneously converted to and conducted in a virtual format. This could only happen in a finely tuned, globally connected organization such as the IEEE. As we move in to 2023, the Region 2 team remains committed to maintaining the same level of commitment, drive, and innovation that has been shown in the past years.

Taking cues from the past, I would like to thank Mr. Barry Tilton, Past Region Director, for his leadership for the past two years. Barry and his team helped transition Region 2 throughout the global pandemic and got us through to the other side unscathed and with new tools and opportunities for the future.

Looking towards the future, IEEE President Saifur Rahman has outlined his 2023 priorities including (i) coordinating IEEE's response to climate change, (ii) IEEE election pilots, (iii) innovating funding models, and (iv) coordinating IEEE's response to multimedia-based digital reality technologies. These priorities will dictate the direction that core IEEE activities will take on the global stage for this year. In Region 2, we will try our best to couple our local activities to these global goals.

In addition to these, Region 2 has a local focus on the following priorities for 2023:

- Support for Local Activities: The Region needs to recognize and share the best of Section activities through an initiative that helps to capture activity (meeting, guest speakers, workshops, etc.) in one section that can be used in another.

- Financial Transparency and Growth: Regional funds support all members, and members should be easily able to see how funds are being, and planned on being, used. Due to decreased membership, the Region needs to investigate additional sources of income, including the formation of an annual regional conference.

- Engagement of Students and Young Professionals: Regional and local units need to expand how we engage with Student Members and Young Professionals. The Region will continue to grow the successful Regional Student Activities Conference, while supporting and forming additional activities with support of higher-grade members.

- Leadership and Volunteering Opportunities: Outline and establish a leadership pipeline for current and future volunteers in local sections

Apart from these, if you believe that there need to be any other specific areas of focus, please feel free to reach out to me personally. I am open to your ideas and look forward to your continued support in the coming year. It is my honor and privilege to serve as your Region 2 Director.

Wishing you once again a very happy and promising time ahead,

Drew Lowery dlowery@ieee.org

2023-2024 Region 2 Director

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

Impact of Tech in 2023

Technology is changing the world faster then ever. How will technology shape our lives and the world around us in 2023 and beyond? To answer that question, we surveyed a global audience of technology leaders and asked IEEE Impact Creators for their insights.

This volume of the IEEE Transmitter examines technology advances and predictions in the following areas:

- Connectivity
- Metaverse
- Emerging Tech for EV Adoption
- Tiny machine learning and 5G technologies
- Laying foundations for 6G technologies

The global study of chief technology officers, chief information officers, and IT directors all participated in the global study and their findings are <u>here</u>.

IEEE IN 2050 & BEYOND

This <u>white paper</u> by IEEE 2022 President & CEO Ray Liu and IEEE Ad Hoc Committee on IEEE in 2050 Chair, Mr. Roger Fujii, explores the following topics:

- The importance of future-proofing the organization
- Molding the IEEE of the future

By addressing the challenges and opportunities that lie ahead of us, IEEE can remain a vibrant organization with relevance both now and well into 2050. If IEEE remains true to its central values —fostering technological innovation and excellence for the benefit of humanity.

TO LOOK FORWARD SOMETIMES YOU HAVE TO LOOK BACK

Technologies decades in the making finally get their star turn in 2023. IEEE Spectrum's annual technology <u>forecast</u> as prognostication filtered through a skeptical lens and years of ongoing coverage of technological advances from lab to market. Each January, we look at projects across the globe and from a range of engineering disciplines that will have major milestones in the coming year. While some technologies flop and fade away, others produce multiple hype cycles that raise and then dash hopes again and again.

Top Tech 2023: A Special Report

These two dozen technical projects should make significant advances in the coming year. Each January, the editors of IEEE Spectrum offer up some predictions about technical developments we expect to be in the news over the coming year. You'll find a couple dozen of those described in the referenced <u>special report</u>.

13 INTRIGUING ENGINEERING MILESTONES TO LOOK FOR IN 2023

IEEE explores the following and more in this issue, including:

- Underwater fiber-optic link Europe & Japan
- Hot-air balloons as a defense strategy
- European Parliament and Council's Digital Services Act
- MicroGEO satellites for enhanced coverage
- NOAA's Hurricane tracking and prediction modeling
- China's big Hydro solutions
- Singapore's rainforest tech challenge
- Modular nuclear power plant
- Germany's fiber and innovative micro-trenching technique
- New Mexico's wind farm and transmission line

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

AN AI'S ADVICE ON DEVELOPING LEADERSHIP SKILLS

As an executive and manager in the twilight of a 30+ year career, I have enjoyed sharing my knowledge and experience with others as a writer. Part of being effective in your job, whatever it may be, is to stay on top of technology trends, and so I've been experimenting with ChatGPT, an artificial intelligence beta based on the OpenAI.com platform

"WHAT DO YOU DO?" IS AN OVERRATED QUESTION

"So… what do you do?" Ahhh, yes, that go-to question we always pull out when we meet someone new. It might be the standard introductory question in the United States, but it has recently started receiving pushback. People are starting to question the benefit of this question. Let's take a look at some of these concerns, and check out some alternatives as well.vantage in hybrid and remote work. Read the full article here.

2022 IEEE-USA CONSULTANTS FEE SURVEY: CONSULTANT RATES UP $30 OVER PAST TWO YEARS

IEEE-USA has released its 2022 Consultants Fee Survey Report, including rich statistics from a survey of IEEE-USA members — who reported that more than half of their income came from consulting.

"UPCOMING POLICY WEBINARS & VIRTUAL EVENTS

In this **bi-weekly webinar**, IEEE-USA Government Relations Senior Legislative Representative **Aline McNaull** discusses what Congress is doing for, and to the profession.

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

IEEE – USA Special Resources

JOIN IEEE-USA IN WASHINGTON FOR CONGRESSIONAL VISITS DAY (4-5 APRIL 2023)

IEEE-USA Congressional Visits Day (CVD) is an annual event that brings engineers and other technology professionals to Washington to raise visibility of and support for engineering and technology. Attendees get to meet with their elected officials and/or their staff in person to discuss important issues and legislation. CVD is open to all IEEE members in the United States, and is FREE to attend. Registration is now open, we hope to "see" you there!
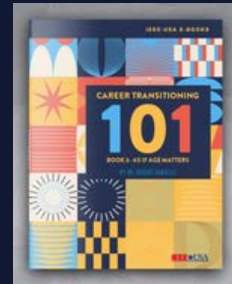

NEW IEEE-USA AUDIOBOOK TEACHES HOW TO PITCH IDEAS SUCCESSFULLY

The latest audiobook from IEEE-USA focuses on how you can make a better pitch at work, whether it's for a new project, an increased budget or staff, or even for a promotion. Free download!

New IEEE-USA E-Book Takes on Ageism in the Workplace

In the third book of his series about career transitioning, Dr. Robert Danielle talks about ageism, how to react to it, and more importantly how to discourage it. Free for all IEEE members!

FREE WEBINAR: INSURANCE CONCEPTS AND PRODUCTS: HOW TO SECURE YOUR ASSETS AND INCOME

Continuing IEEE-USA's financial literacy webinar series, Graham Fuller talks about how you can best protect yourself and your loved ones in the event of the unexpected. Join us live on Wednesday, February 8 at 2:00pm ET.

APPLY TO WISE INTERNSHIPS BY 2/1

Student members interested in applying for WISE internships for summer 2023 must submit their applications by 1 February. More information here.

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

IEEE Region 2 Areas of Importance

OU END OF YEAR REPORTING

Important items for end of year 2022 WRAP-UP action!

- **IEEE vTools Event Reporting 2022**
- **IEEE OU Officer Reporting 2023**
- **IEEE Nominations & Elections 2023**
- **IEEE NextGen Financial Reporting 2022**

10% Rebate Bonus reporting due 2/17

Rebate reporting due 2/28

Region 2 - Mini-Syncs 1Q/2023

We kick off our Region 2 Mini-Syncs with our new executive leaders per the following 1Q/2023 schedule:

- 1/23 @ 5 PM ET - Recording & Deck Here
- 2/22 @ 5 PM ET
- 3/20 @ 5 PM ET

Please reach out to Dr. Drew Lowery (dlowery@ieee.org) or the IEEE R2 RVC at ieeer2rvc@gmail.com if you have Guest Speakers or topics that you would like to see included in future IEEE R2 Mini-Syncs.

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

Student Branch Rebate Reminders

For all of our IEEE R2 Student Branches, reminder that they can earn rebates if they have reported officers, held 4 vTools advertised events, and file their Annual plan by 2/2/2023. Learn more about compliance activities here.

Region 2 - Local Groups

A Local Group (LG) is a new IEEE Organizational Unit that is a subunit of a Section, focused on a specified local interest and is open to members and non-members. To petition to start up an LG, go here. If help needed, reach out to **LocalGroups@ieee.org**.

Region 2 - Opportunity Knocking

Are you wondering what might be next for you as you advance within IEEE? Are you interested in serving at a higher level? Does learning more about leading or supporting a Region 2 committee peak your interest?

Region 2 has leadership and contribution opportunities available for 2023 and beyond.

Please submit your interest to Dr. Drew Lowery at **dlowery@ieee.org**.

ENGINEERS WEEK 2023

Engineers Week 2023 is February 19-25 2023! Share how engineers are Creating the Future! Celebrate #Eweek2023.

Sections Congress 2023

Sections Congress (SC) is to be held 11-13 August 2023 at the Shaw Centre in Ottawa, Canada and Registration is now open (https://sections-congress.ieee.org/index.html). Even though you might have seen communications on registration already here is what R2 would like you to know. Please read all info carefully so you can plan accordingly:

- Primary Delegate Funding: Section Chairs (or their designees) are the primary delegates - travel and registration will be covered by MGA (not by Region 2). You may have already received a code to register for SC 2023-there is only one code per section so this must be used by the primary delegate. You may also send other delegates from your section but they must be 100% financed by your section. You may also register a spouse or partner for the event and details on what is covered for them is on the registration page.
- Lodging: The Region 2 Director is suggesting that all R2 delegates stay at the Westin or Novatel Hotels. There are other lodging options that may be less expensive, but the Westin is attached to the Shaw Centre and the Novatel is across the street. The lodging allowance will cover 3 nights at either of these hotels. Note that if you stay anywhere but one of the listed hotels, you will not be reimbursed regardless of any realized cost savings and your reimbursement will be limited to the covered nights explained below. Staying at one of these hotels will make it more convenient for attending SC2023 events and for transportation for the R1/R2 dinner cruise (more info on that below). We urge you to make the hotel reservation asap as some of the hotel blocks will sell out!

- SC2023 Event Registration: Section Delegates must use their provided code sent for waived SC2023 registration. If you did not get the email with a link to your code, please let us know and we will provide it. SAC, WIE and YP reps also have waived codes and should contact us for them. The remaining R2 Committee Chairs and section sponsored delegates will pay for registration and be reimbursed by the region or their section as applicable after the event.
- Region Activities: There will be NO Region meeting there this year at Sections Congress—we will meet virtually weeks before the event to help you plan activities to make the most of the event and also months before to review the R2 submissions for recommendations (more info on that below).

- Reporting: Please send the name, officer position, email and cell phone number to the SC Coordinators at fharlow@ieee.org and bfrantom@ieee.org NLT April 15 so that we may track attendance and make sure you get all the Region information. Please also provide guest names.
- Additional lodging Info: Section Delegates will be covered for 3 nights by MGA. R2 Committee Chairs will be covered by Region 2 for 3 nights and R2 ExCom will be covered for 4 nights to allow for an ExCom meeting (that list is below).
- Key Schedule:
  - Friday – no sessions – Opening Ceremony (includes Dinner) – need to be there by 5PM EST
  - Saturday – All Day sessions – Breakfast and lunch included
  - Sunday – Breakfast, lunch included. Closing Ceremony 3-5PM
  - Sunday night – Joint Region 1/2 Dinner Cruise (sponsored by both Regions). Section Delegates, other Section sponsored attendees and all R2 Committee Chairs that are covered are welcome to attend and bring one guest. Other guests will have a cost (TBD but ~$100USD).

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

Sections Congress 2023 (Cont'd)

- Please RSVP for the cruise when you send confirmation of your attendance. vTools Registration link for the cruise will be coming later.
- Monday morning - R2 ExCom ONLY* - There will be Joint Region ExCom meeting with Region 1 on Monday morning. The Region will cover your stay for a 4th night (Monday) if necessary. Meeting will conclude Monday NLT Noon. Breakfast & Lunch will be provided for this meeting.

- Additional Section funded individuals – please let the SC Coordinators know if you are funding other individuals from your section (name, officer position, email and cell phone number) so they can be included in the Region cruise and any other planning meetings.

- Recommendations: Section Chairs – please share the link for the call for 2023 Sections Congress recommendations (https://r2.ieee.org/2023-sections-congress-recommendations/) with your sections. These submissions are due by 15 March 2023 for consolidation at the region level! R2 Committee is also urged to submit.

- Expense Breakdown The below is coverage breakdown for individuals covered by R2 or MGA
  - Airfare $900
  - Hotel (to include taxes) $1000 (note that the costs on the website are in CAD and not USD)
  - Ground Transportation $200
  - Meal Reimbursements (You will be reimbursed $100 max for all non-covered meals listed above). The Sunday evening Region 1/2 cruise will be covered so this dinner cannot be claimed. Per MGA rules, $50 max per meal.
  - Reimbursement will be via the IEEE Concur system (If you don't have an account now would be a great time to get one). Payment will be made AFTER Sections Congress, so please note that you will have to prepay the airfare expenses and wait for reimbursement until after the meeting.
  - Any special cases for an extra night or excessive costs needs to be approved by the Region 2 Director in writing, in advance.

Contact Felicia Harlow or Barbara Frantom, Sections Congress Coordinators with any questions at: fharlow@ieee.org and bfrantom@ieee.org

Note: R2 ExCom = Region Director, Director Elect, Treasurer, Asst Treasurer, Secretary, Immediate Past Region Director, 4 Area Chairs, Professional Activities Coordinator & Chair, Student Activities Committee

MGA COMMITTEE OPPORTUNITIES

The IEEE Member and Geographic Activities (MGA) Nominations and Appointments (N&A) Committee is soliciting nominations for the following 2024 leadership positions:

- MGA Vice President-Elect/Board Chair-Elect
- MGA Treasurer
- MGA Vice Chairs
  - Geographic Unit Operations
  - Information Management
  - Member Development

- Committee Chairs
  - Admission and Advancement (IEEE)
  - MGA Awards and Recognition
  - MGA Geographic Unit Operations Support Committee (Chair is VC-GUOS)
  - MGA IEEE.tv Advisor
  - MGA IT Coordination and Oversight Committee Chair is VC-Information Management
  - IEEE Life Members Committee
  - MGA Member Benefits Portfolio Advisory
  - MGA Membership Recruitment and Recovery
  - MGA Member Engagement and Life Cycle Committee
  - Chair is VC-Member Development
  - Operations Manual Compliance Committee
  - MGA Potentials Editorial Board
  - MGA Student Activities Committee
  - MGA Training Committee
  - MGA vTools Committee
  - IEEE Young Professionals Committee
  - IEEE HKN – MGA Governor-At-Large

The deadline to submit nominations for the above positions is **15 March 2023**. A complete list of available MGA positions, committee descriptions, and information on the MGA Nominations and Appointments process are available. Nominate yourself or a colleague now

For questions, email **mga-noms@ieee.org**

Central Area

The Central Area covers the following IEEE R2 Sections:

- Central Pennsylvania
- Erie
- Johnstown
- Pittsburgh
- Susquehanna
- West Virginia

Chair: James A. Beck

Join the IEEE Johnstown Section on 2/8 for their Section Lunch Meeting.

2023 IEEE EMBS INTERNATIONAL CONFERENCE ON BIOMEDICAL AND HEALTH INFORMATICS (BHI)
15 - 18 OCTOBER 2023

The theme of the conference is Transforming healthcare and biomedicine with AI. The scopes include Digital Twin and Cognitive AI, Bioinformatics, Theoretical Informatics, Sensor Informatics, Public Health Informatics, AI for combating long COVID, Security and federated learning, AI ethics and Regulation, AI for biomarker discovery and drug design. Information here.

Join IEEE members from across the world for IEEE Educational Activities in January and Full Event List here

Engineers Week 2023 will run from 19 to 25 February. This year's theme — Creating the Future! — recognizes how engineers play a vital role in innovating solutions to global challenges that impact future generations. By working together to develop new technologies, products and opportunities, engineers create new possibilities that make the world a better place. Let's inspire the next generation by celebrating all the ways engineers Create the Future!

This Engineers Week, we hope that you'll take a moment to recognize and celebrate the work of engineers and engage students in engineering. DiscoverE, the organization behind Engineers Week, has free resources you can use to inspire future innovators, such as hands-on engineering activities and lesson plans, information about engineering education, and pathways to a technical careers. Visit DiscoverE.org and get the help you need to focus on the "E" in STEM.

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

East Area

LEHIGH VALLEY

Join Lehigh Valley for one of their upcoming Executive committee meetings in 2023.

PHILADELPHIA

Join the Philadelphia Section for one of their upcoming Section events

- 2/14: Zoom Administrative Meeting
- 2/21: Electrical Power Systems Overview
- 2/23: How Safe is Safe Enough for Autonomous Vehicles?
- 3/14: Zoom Administrative Meeting

Join the Philadelphia Section for one of their upcoming conferences

- 19 - 23 June 2023: 2023 IEEE North American School of Information Theory (NASIT)

- 12 - 15 October 2023: 2023 IEEE Global Humanitarian Technology Conference (GHTC)

The East Area covers the following IEEE R2 Sections

- Delaware Bay
- Lehigh Valley
- Philadelphia
- Southern New Jersey

Chair : Richard Jessop

New Area Chair: Richard Jessop

Today we recognize Richard Jessop's elevation to the IEEE Region 2 East Area Chair position. You can find more information about our newest leader here.

ENGINEERS WEEK

National Engineers Week was established in 1951 to help increase public understanding of the engineering profession. In the Delaware Valley, Engineers Week program have been held since 1953. The programs are sponsored by a collaboration of engineering societies, government agencies, universities, and major corporations representing thousands of engineers. Engineers Week is a strong venue to inform our citizens of the value of engineers, celebrate engineering technology and innovation, and cultivate interest in math, science and engineering among the nation's youth – tomorrow's work force.

Learn More by visiting the link here!

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

South Area

The South Area covers the following IEEE R2 Sections

- Baltimore
- Northern Virginia
- Washington D.C.

Area Chair: Don Herres

South Area Events

Join the Baltimore, NOVA, or DC Section for one of these phenomenal events in 2023

- 1/28: IEEE REGION 2 SOUTH AREA ANNUAL VOLUNTEER LEADERSHIP WORKSHOP
- 2/13: BALTIMORE SECTION EXECUTIVE COMMITTEE MEETING
- 2/15: SUBSTATION CONNECTORS – TYPES, USES, & MORE EVENT
- 2/22: ENGINEERS WEEK 2023 - PROCLAMATION LUNCHEON
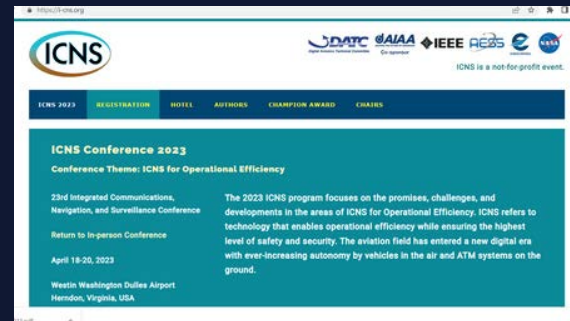- 2/25: ENGINEERS WEEK 2023 - AWARDS DINNER

South Area Conferences

Join the Baltimore, NOVA, or DC Section for one of these phenomenal conferences in 2023

3/11: 2023 IEEE INTEGRATED STEM EDUCATION CONFERENCE (ISEC)

13TH IEEE INTEGRATED STEM EDUCATION CONFERENCE

Johns Hopkins University (Applied Physics Laboratory), Maryland

3/22-24: 2023 57th Annual Conference on Information Sciences and Systems (CISS)

4/4-7: 2023 IEEE Silicon Photonics Conference (SiPhotonics)

4/18-20: 2023 Integrated Communication, Navigation and Surveillance Conference (ICNS)

4/25-28: 2023 11TH INTERNATIONAL IEEE/EMBS CONFERENCE ON NEURAL ENGINEERING (NER)

West Area

The West Area covers the following IEEE R2 Sections

- Akron
- Cincinnati
- Cleveland
- Columbus
- Dayton
- Lima
- Youngstown

Area Chair: Chang Liu

CINCINNATI SECTION

Join Us on 26 JAN 2023 @ 6 PM

Section meeting hosted by the Cincinnati Section Executive Committee

COLUMBUS SECTION

Join Us on 16 FEB 2023 @ 5 PM

DER SMART INVERTERS & DISTRIBUTION SYSTEM OPERATIONS

DAYTON SECTION

Join Us on 27 JAN 2023 @ 6:30 PM

2023 KICKOFF DINNER

Welcome to 2023! We are so excited to see all of you this year! We are doing a kickoff dinner at Mudlick Taphouse in downtown Dayton which starts at 6:30pm. WIE/YP will cover your first round of drinks. We will be discussing options for events this year for WIE/YP. We will also have a short update from the Dayton Section regarding events and volunteer opportunities.

WEST Area Conferences

4/25-28: 2023 IEEE RURAL ELECTRIC POWER CONFERENCE (REPC)

The **IEEE Rural Electric Power Conferenc**e exists to provide a technical platform for the exchange of pertinent and relevant technical knowledge within the rural electrical utility industry to the practicing utility engineer or technician that is working for a rural cooperative, an investor owned, or a municipal electric utility. Consulting engineers, manufacturers, and educators involved in medium and high voltage electric power system planning, design or component development are also encouraged to engage in networking and to contribute with their knowledge on advanced technologies and application methods as part of the conference forum. Location: Cleveland, Ohio

6/21-22: 2023 IEEE COGNITIVE COMMUNICATIONS FOR AEROSPACE APPLICATIONS WORKSHOP (CCAAW)

The aim of this workshop is to bring together Researchers, Engineers, Technologists, and leaders across industry, government, and academia to discuss and present their recent advancements and future interest in the field of artificial intelligence and machine learning with applications toward the development of cognitive telecommunication systems for aerospace. Location: Cleveland, Ohio

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2

JOIN AN AFFINITY GROUP

JOIN A COMMUNITY

Collaborate, Engage, and Follow Us in 2023

SUPPORT OUR STUDENTS & ENTREPRENEURS

ATTEND AN R2 EVENT

Newsletter Editor: Dr. Rhonda Farrell, ieeer2rvc@gmail.com, www.ieee.org/r2