

Region 5 2023 Congress – Welcome!

A. Matt Francis, 2024-2025 Region 5 Director

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About Me



- A. Matt Francis
- mattfrancis@ieee.org
- 2024-2025 Director
- Ozark Section (EAST)
- Previous Roles: HKN Student Branch Chair, IEEE Student Branch VP, Chair Ozark Section, East Area Chair
MGA Geographic Unit Operations Committee, MGA N&A
- Current Roles: Audit Committee, Employee Benefits, Industry Engagement Committee, MGA VP Governance AdHoc (Chair), MGA VP Sections Congress Adhoc
IEEE President AdHoc on Students

Matt is founder and President/CEO of [Ozark Integrated Circuits, Inc](#), where he leads development of high-temperature semiconductor computing solutions for energy, defense, aerospace and space applications. Dr. Francis is an expert in the scalable design, manufacturing and assembly of extremely reliable single-board computers, from silicon/silicon carbide semiconductors to advanced packaging, ceramics and test for reliability – including their complex supply chains. Under his leadership Ozark IC has been recognized as a leader in rugged computing devices, with 36 SBIR awards from DOE, NASA, USAF, DARPA and NSF, wins in the MassChallenge accelerator Gold Award (2020), the Army XTech Hypersonic Manufacturing Prize (2022), the American Made Geothermal Prizes (2021-2023) and as the 2023 Arkansas Business Innovation Pacesetter. Dr Francis served as a remote payload specialist for Ozark IC's payloads on the International Space Station (2019-2021), and earned BSEE ('03), BS Physics ('04), MSEE ('07) and PhD ('09) degrees from the University of Arkansas.

What is IEEE?

<https://www.ieee.org/about/vision-mission.htm>

- **IEEE is a 501c3 incorporated in New York**
- IEEE is a worldwide organization with ~480,000 members!

Mission statement

- IEEE's core purpose is to **foster technological innovation and excellence for the benefit of humanity.**

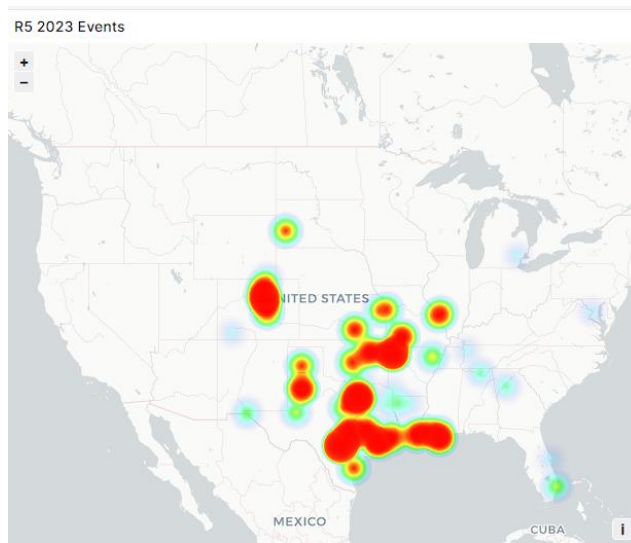
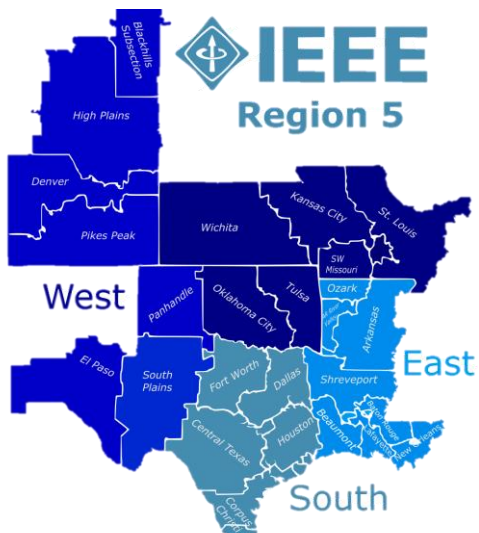
Vision statement

- IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

Region 5

- ~24,000 Members
- Elected Positions: Director-Elect, Director, Past Director
- Voting and non-voting positions
- 27 Sections

North	East	South	West
<u>Kansas City</u>	<u>Arkansas</u>	<u>Central Texas</u>	<u>Black Hills (sub)</u>
<u>Oklahoma City</u>	<u>Arkansas River Valley</u>	<u>Corpus Christi</u>	<u>Denver</u>
<u>St. Louis</u>	<u>Baton Rouge</u>	<u>Dallas</u>	<u>El Paso</u>
<u>SW Missouri</u>	<u>Beaumont</u>	<u>Fort Worth</u>	<u>High Plains</u>
<u>Tulsa</u>	<u>Lafayette</u>	<u>Galveston Bay</u>	<u>Panhandle</u>
<u>Wichita</u>	<u>New Orleans</u>	<u>Houston</u>	<u>Pikes Peak</u>
<u>Rolla (sub)</u>	<u>Ozark</u>	<u>Lone Star</u>	<u>South Plains</u>
	<u>Shreveport</u>	<u>Rio Grande Valley(sub)</u>	
		<u>Freeport (sub)</u>	





Director
Matt Francis



Vice Chair/
Director
Elect
Christopher
Sanderson



Past
Director
Bob Bechel



Secretary
Art Depoian



Treasurer
Bill Wylie

Bylaws Committee

N&A
Committee

Comms Team

Finance Committee



Diane Collier



Colleen Bailey



John Santiago



Ian MacMillan



Silke Spieshofer



Jim Sipes



Joe Redfield (South)



Faye Kann (West)

Professional Activities

Student Activities

Educational Activities

Membership Development

Awards and Recognition

Conferences



Government Relations - Walt Downing

Student Rep



STEM/SEA C Case Kirk

All Section MD Chairs (or Section Chair if not Designated)

Area Chairs N / S / E / W

1-Ex Officio

Technical Activities Coordinator Nasr Ullah



Prasenjit ShiL (North)



Paul Minor (EAST)

- Regional Life Member Coordinator John Purvis
- Awards - At Large Member Leslie Martinich
- Regional Student Representative Ben Hand
- Historian Zafar Taqvi
- Government Relations Walter Downing
- Region Vitality Coordinator Biju Cherian
- Web/Virtual Community Coordinator Lynn Francis
- Industry Engagement Chair Charles Stein

- K. Michelle Patrick
- Women In Engineering Chair Krueger
- Region Young Professionals Coordinator Haley Hirschfield
- Strategic Planning Committee Chair Paul H Cassingham
- Standards Coordinator Donald Dunn
- Admission and Advancement Committee Lawrence Larson

- Newsletter Editor Ademola (Peter) Adejokun
- Raphael Chabaneix, Garrett Cayce, Lynn Francis, Aidan Kurz, Lyle Newman, Kevin Pham
- Communications Team Pham
- Conference - Technical Activities Group Nasr Ullah
- Humanitarian Activities Coordinator John Reinert
- Precollage and Educational Activities Board (EAB)
- Section Outreach Committee Activities Committee

Region 5 Priorities for 2024-2025

- Improving the Leadership Vitality of our Sections **#LEADERSHIP**
- Membership Development: Converting Students to Members (YP) **#YP**
- Growing Connections with Industry **#INDUSTRY**

Are we making an Impact?

2025 Ad hoc Committees:

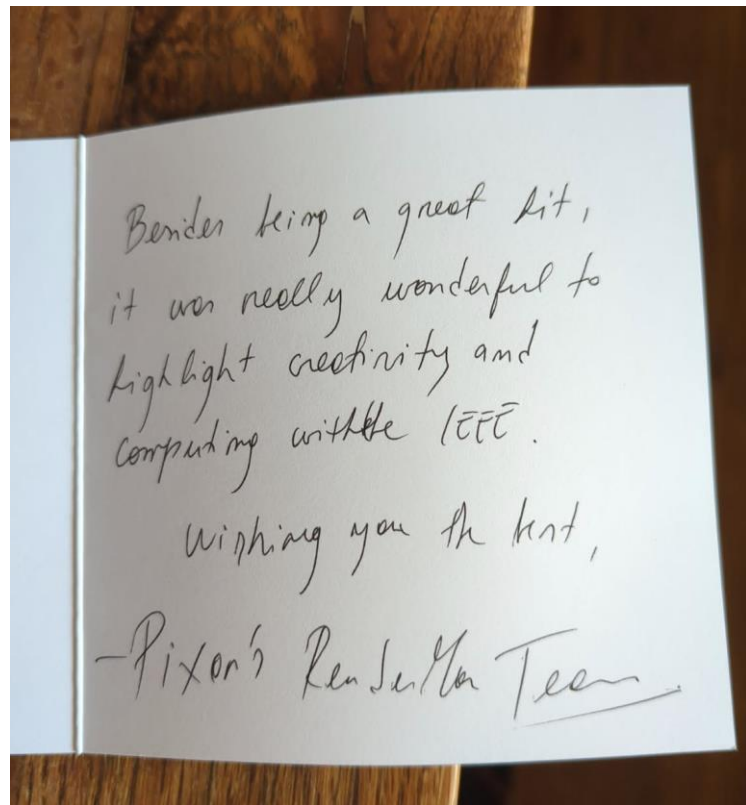
- ▶ Creating a Conduct Severity-Level Framework
- ▶ One IEEE Education Strategy for Empowering Technical Innovation
- ▶ One IEEE for Students
- ▶ One IEEE to Enable Strategic Investments in Innovations and Public Imperative Activities
- ▶ The Conduct Review Committee's Delegated Responsibilities

One IEEE

- ▶ Leveraging the power of **One IEEE** through coordinated activities to increase the impact of our global mission to advance technology for humanity



Are we making an impact?



Are we making an Impact?

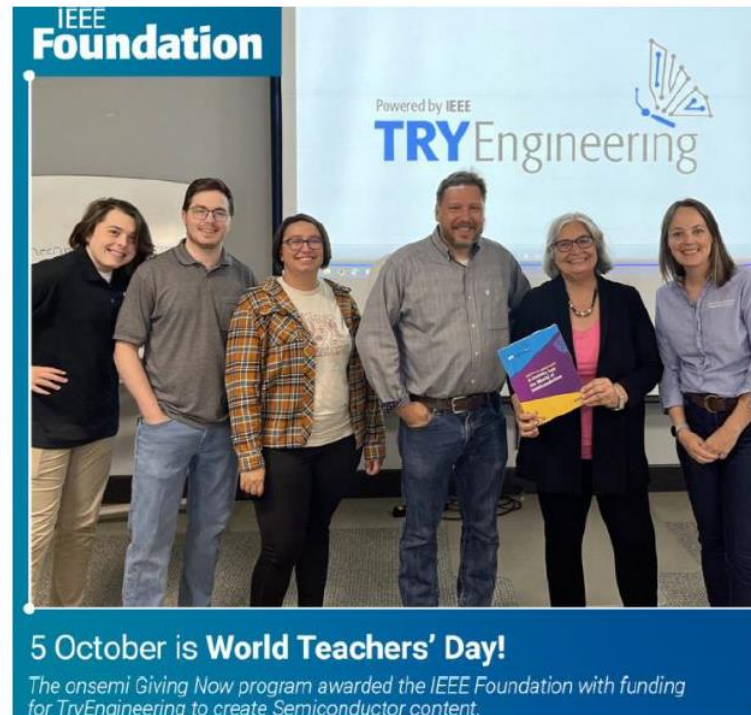


Figure 7: Staff and volunteers making the Semiconductor program happen!

\$180k grant from OnSemi- featured in Spectrum

Are we making an Impact?



Are we making an Impact?

2024-MGA-Surplus-Funding-Proposal ¶

PROJECT-TITLE: → Supporting-STEM-through-MGA-Local-Groups ¶

PROPOSAL-SUBMITTED-BY: → IEEE-REGION-5-6 ¶

PROJECT-LEAD-NAME: → Matt-Francis ¶

PROJECT-DESCRIPTION-(Include-how-the-requested-funds-would-be-expended,-anticipated-participation,-and-the-desired-outcome): ¶

The Elkins Robotics/Electronics Club has proven to be a sustainable model. The club -- **one of the original MGA Local Groups** sponsored by the IEEE Ozark Section -- has continued to provide hands-on STEM experiences for students in grades 2 through 12 for the past 6 years. Key to the model's sustainability has been the **use of low-cost, easily replaceable materials**, our existing free online hosting and resources through IEEE TryEngineering, and the utilization of freely available resources for coding and modeling projects, including TinkerCad and the MuPython editor. Like others in the TryEngineering community, we have been able to use our own curriculum around these low- or no-cost resources, we have been able to keep the ongoing costs of the program very low -- but materials of course, are not free! ¶

In this proposal, we are focusing on expanding our reach by providing training with the hands-on STEM kits to participating sections and student branches, in hopes of forming STEM clubs as local groups. The initial kit would be a play-doh circuits starter kit, which was recently used as a demonstration at the Region 5 annual meeting with volunteers and college students. ¶

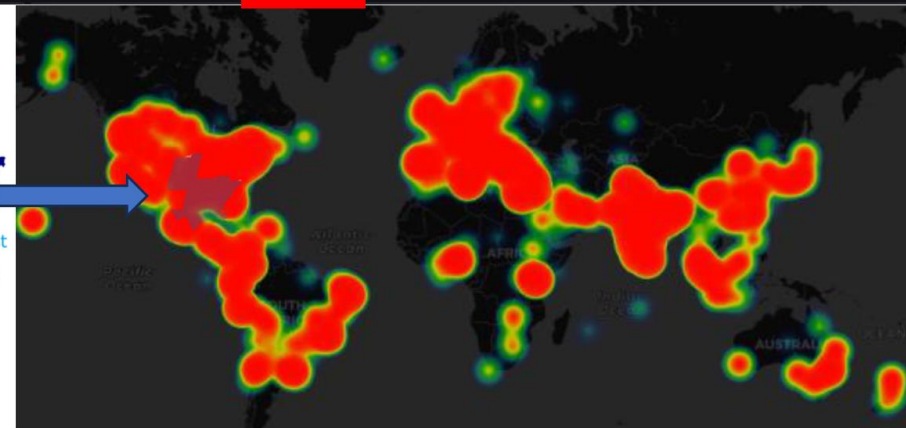
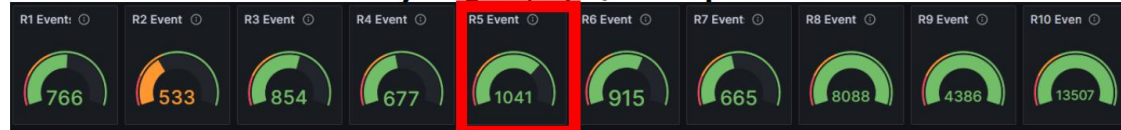
Example-Supplies: ¶

- Play-Dough-(Conductor) ¶
- Modeling-clay-(Dielectric) ¶
- 9-volt-battery ¶
- Some-3-or-5-mm-LEDs- ¶
- 9v-battery-clip-connectors- ¶
- Sample-breadboards-and-micro:bit-computer-for-more-advanced-activities. ¶

These starter kits are low-cost, easily-refillable and expandable and do not require internet or computer access to get started. The kit builds the bridge from basics of electricity, to building real circuits on breadboards, and to actual embedded computing. ¶

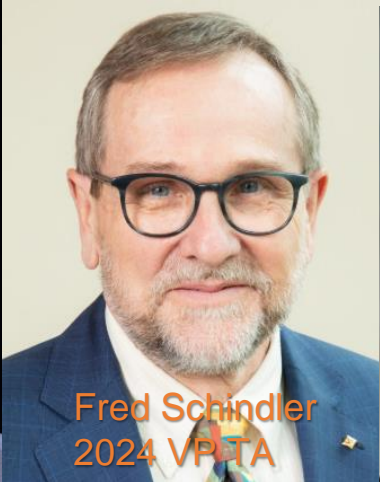


Hosted-Cohosted events by Region, 1/1/24 to present:





Gerardo Barbosa
IEEE Treasurer



Fred Schindler
2024 VP-TA



Tim Lee
President IEEE-USA



Jen Castillo
Region 9 Director



Kathleen Kramer
IEEE President



Drew Lowery
VP Elect MGA



Jim Jeffries
HKN President Elect



Scott Tamashiro
Region 6 Director Elect

Kelly Smith, CEE

Jim Ramirez –
Corporate
Development



Stay tuned in!

- <https://r5conferences.org>
- Follow the schedule online!



What are the impacts for 2025?

- The future of IEEE is ONE IEEE, and we are leading the way!
- Sustain and grow!
- LEAD in IEEE through collaboration – ONE IEEE!