



Contents

• <i>Chair's Corner</i>	2
• <i>Touchstone - Invented Here</i>	3
• <i>Play A Game to Build Technical Skills, Build Confidence, and Practice Collaboration</i>	4
• <i>Pittsburgh Section Outstanding Volunteer of the Year Nominations</i>	5
• <i>Welcome Ceremony at the 2023 Women In Engineering Forum</i>	5
• <i>Local Power & Energy Society (PES) Distinguished Lecturer (DL) Travels</i>	6

Editor: Philip Cox, p.e.cox@ieee.org; Contributors: Jim Beck, Ahmed H Dallal, Louis Hart, Steve Mozelewski, John Mazurowski, Kal Sen,

All announcements for publication in a particular month's bulletin are due to the Editor by the 20th of the previous month. The accuracy of the published material is not guaranteed. If there is any error, please bring it to the Editor's attention. The Section's web site, [webinabox Pittsburgh](http://webinabox.pittsburgh.org), has recent issues of the bulletin and lots of other useful information.

• Chair's Corner

Greetings members of the Pittsburgh section of IEEE.

Well, they say “all good things must come to an end”! In that spirit, this will be my final column as Chair of the Pittsburgh section of IEEE. Like most of our recent Chairs, I have completed two one-year terms and the election is now well under way to identify the 2024 Chair (and the remainder of the Executive team).

The Pittsburgh section is in a strong position. In 2023, we offered 47 (and counting!) unique activities for our members. This included a great blend of very popular in-person tours (Beaver Valley and Tenaska Power Plants most attended) and social events (picnics, Pirates baseball game, and a visit to Oglebay Park). There were also a number of STEM events, like Engineers’ Week at the Carnegie Science Center, the Robot Car Race, and the Science Fair. Many of our seminars were held virtually or hybrid for the convenience of our members. Finally, the Pittsburgh section hosted two of IEEE’s major conferences in October.

A highlight for me the past two years was the Pittsburgh section receiving the “Region 2 Exemplary Section Award for 2023”. The awards committee chose Pittsburgh out of the 20 sections in Region 2. This award really acknowledges all of the good work that we had going on this year!

Globally, IEEE remains in a growth mode, with an 8.1% year-over-year change in membership numbers in October. We are now approaching a record number of ~450,000 members. Pittsburgh section remains steady at ~2,500 members.

Thanks to all of the wonderful volunteers we have in our section. We have a great mix of people who are engaged and searching for the right programs for our members. Lastly, thanks to you, our members, for the privilege of serving you all as Chair for the past two years!

Steve Mozelewski

2022 - 2023 IEEE Pittsburgh Section Chair

Steve.mozelewski@gmail.com

Twitter: @MozelewskiSteve

Section

Chair - Steve Mozelewski, Steve.Mozelewski@gmail.com

Vice Chair - Dr. Jianan (Leo) Jian, jj52@pitt.edu

Treasurer – Jenna Price, jprice@ieee.org

Asst. Treasurer – Ted Zyra, tzyra@ieee.org

Secretary – Greg Price, gprice@ieee.org

Immediate Past Chair – C. Evan Watson, c.evan.watson@ieee.org

Special Events Chair – Dr. Kal Sen, senkk@ieee.org; Mey Sen, senml@ieee.org

Webmaster – Gerry Kurnik, g.kurnik@computer.org

UpperMon Subsection: Chair: Dr. Gianfranco Doretto, Gianfranco.Doretto@mail.wvu.edu

Chapters

Communications Society – Chair: Dr. Balaji Palanisamy, bpalan@pitt.edu; Sec: Phil Cox, p.e.cox@ieee.org

Computer Society – Chair: Vishal Rastogi, vishal.ras@gmail.com

Education Society- Chair: Ahmed H Dallal, ahd12@pitt.edu

Electronics Packaging/Electron Devices Societies – Chair: John Mazurowski jsm23@arl.psu.edu

Engineering In Medicine & Biology Society
Chair: Steve Mozelewski, Steve.Mozelewski@gmail.com

Electromagnetic Compatibility Society - Chair: Louis Hart, Louishart@ieee.org

Magnetics Society – Chair: Dr. Simran Singh - simranjs@andrew.cmu.edu

Nanotechnology Society - Chair: Andrew Cochran, acochran@andrew.cmu.edu,

Power Electronics Society – Chair: Patrick Lewis, ptl7@ieee.org

Power & Energy & Industry Applications Societies
Chair: Martin London, mlondon@alumni.scu.edu;

Robotics Society – Chair: Ralph Sprang, rsprang@ieee.org

Signal Processing & Control Systems Societies – Chair: Danson Garcia P.E., dansongarcia@ieee.org; Vice Chair: Jesse Mahn, jesse.mahn@outlook.com

Society on Social Implications of Technology
Chair: open; Vice Chair: Joe Kalasky, P.E., j.kalasky@ieee.org
724-244-1609

Council of Electronic Design Automation Chair: Baris Taskin, taskin@coe.drexel.edu

Affinity Groups

Young Professionals (formerly GOLD) – Chair: Jenna Price, jprice@ieee.org

Women In Engineering – Chair: Martin London

Life Members: Joe Kalasky, P.E., j.kalasky@ieee.org

Committees

Consultant network: George Crawford, gwc2gwc2@gmail.com

Professional/Career Activities (PACE)
Chair: Joe Cioletti, P.E. jcioletti@ieee.org

Student Activities – Chair: Connor Watson, connor.watson@pitt.edu

Membership Development – Vishal Rastogi, vishal.ras@gmail.com

Publicity – Chair: Thomas Dionise, P.E.
ThomasJDionise@eaton.com

- **Touchstone - Invented Here**



Speaker: Brian Joseph
Date: December 7, 2023
Time: 7:00 pm
Place: Penn State Applied Research Laboratory, Electro-Optics and Electronics Division, 222 Northpointe Boulevard, Freeport PA 16229. This is in the Armstrong Innovation Park off of Route 28 exit 18
Sponsors: Electromagnetic Compatibility Society and Electronics Packaging/Electron Devices Societies
RSVP: <https://events.vtools.ieee.org/m/386957>
NOTE- US CITIZENS ONLY, PROOF OF US CITIZENSHIP REQUIRED: CAC CARD, PASSPORT, DRIVER'S LICENSE.

Abstract: Touchstone Research Laboratory (www.trl.com) has a world-class research facility, materials research expertise, a growing patent portfolio, and is well-known for taking new technologies from ideation, commercialization, and spinning out those inventions as businesses.

Biography: Brian Joseph, President, CEO and Founder of Touchstone Research Laboratory (Touchstone) will discuss Touchstone's unique approach to invention and the commercialization of new technologies. He will discuss new materials at Touchstone, including their applications and physical and electrical properties. Samples of these new materials will be passed around during the presentation.



- ***Escape the Lab: Play A Game to Build Technical Skills, Build Confidence, and Practice Collaboration***

Speaker: Dr. Rachel Childers

Date: 12 Dec 2023

Time: 12:00 PM

Place: This event will be held virtually over Zoom. Registrants will receive the Zoom link over email, the day before the event. <https://events.vtools.ieee.org/m/384176>

Sponsor: Education Society, contact: ahmed.dallal@gmail.com

Abstract: Gamification in education promotes motivation, engagement, and learning gains. This presentation will discuss the use of gamification in engineering focusing in on the development, testing, and application of a biomedical engineering laboratory-based escape room. Recreational escape rooms have grown in popularity as an enjoyable immersive experiences in a unique environment to practice communication and collaboration. Some educators are taking advantage of these qualities in escape rooms to challenge students to demonstrate course knowledge in a low-risk and fun learning environment.

The development, iterative design process, and application of an educational escape room tailored for upper-level undergraduate BME students will be described. This escape room allows students to showcase technical skills and problem-solving within a laboratory environment, utilizing tools such as mechanical test frames, ultrasound, spectrophotometers, and more. Equally as important, students are exposed to a unique opportunity to practice teamwork and communication.

The effectiveness of this activity has been analyzed using student self-reported data and reflections, instructor observations, and survey results. Some of the main takeaways are that participants are engaged and empowered to successfully escape even without external motivators like a grade. Whether successful or not, students unanimously emphasized the significance of effective communication during group tasks and the importance of assigned roles. In addition, there is support to show that this immersive experience not only enhances their learning but also boosts their confidence.

Bio: Dr. Rachel Childers is an Associate Professor of Practice in the Biomedical Engineering department of The Ohio State University. She is also the Director of Undergraduate Studies in Biomedical Engineering.

She primarily teaches hands-on courses such as an upper-level BME lab course which focuses on hands-on technical skills, technical writing, experimental design, and data analysis skills for undergraduate students. In addition, she teaches the Introduction to Biomedical Engineering course which provides foundational skills in open-ended problem-solving in the context of BME.

Before coming to OSU in 2020, Dr. Childers was an Assistant Professor at the University of Oklahoma, where she helped establish the new undergraduate biomedical engineering program by designing 6 different laboratory courses and serving as Chair of Undergraduate Studies. Dr. Childers completed her PhD in Biomedical Engineering at OSU and a B.S.B.E. in Biological Engineering at the University of Georgia.

- ***Pittsburgh Section Outstanding Volunteer of the Year Nominations***

Dear members at large, we are seeking nominations for the 2024 IEEE Pittsburgh Section Outstanding Volunteer of the year award. This award seeks to honor an IEEE member or members who have demonstrated exemplary levels of dedication and service to IEEE in general and the Pittsburgh Section in particular over the 2023 calendar year. In order to qualify, the recipient must be an active IEEE member or student member volunteer that has contributed to IEEE in a demonstrable way. To nominate someone, please submit their name, IEEE number and a brief summary (250 words or less) highlighting their service and contributions in 2023. Nominations may be submitted via email to: jebeck@ieee.org. The cutoff date for nominations is February 29th, 2024. All nominations will be reviewed by the awards committee, and the recipient will be honored at the 2024 IEEE Pittsburgh Section's annual history and awards dinner which will be held next Spring (details to follow).

- ***Welcome Ceremony at the 2023 Women In Engineering Forum***



The 2023 IEEE USA Region1/Region2 Women in Engineering Forum was held at the Sheraton Station Square in Pittsburgh on Oct 26- 28.. The Forum attracted over 250 attendees from throughout the USA. Pictured are Pittsburgh Section officers and Organizing Committee Members as they welcome attendees on behalf of the Pittsburgh Section: L -R . Martin London (PES & WIE Chair), Joe Kalasky (SSIT & LM Chair) and Joe Cioletti (Professional Activities). The local trio worked tirelessly for the past eight months to contribute to the success of the Forum.

- **Local Power & Energy Society (PES) Distinguished Lecturer (DL) Travels**

Local IEEE Fellow Dr. Kalyan Sen has given his PESDL presentations at 4 places – University of Moratuwa, University of Jaffna, and The Institution of Engineers - Sri Lanka and National Institute of Technology, New Delhi, India – in November 2023. Some presentations were jointly held with Power Electronics Society (PELS) that he manages as Regions 4 through 6 Chair. The subject matter of his presentation is well described in the books, coauthored with his wife, Mey Ling. The first book, titled “Introduction to FACTS Controllers: Theory, Modeling, and Applications,” (ISBN: 978-1-119-82435-0) IEEE Press and Wiley, 2009, can be found at the publisher’s website at <https://www.wiley.com/en-us/Introduction+to+FACTS+Controllers%3A+Theory%2C+Modeling%2C+and+Applications-p-9780470524732>. The book is available in Chinese and English paperback editions in China and India, respectively. The second book, titled “Power Flow Control Solutions for a Modern Grid Using SMART Power Flow Controllers,” (ISBN: 978-1-119-82435-0) IEEE Press and Wiley, 2022, can be found at the publisher’s website at <https://www.wiley.com/enus/Power+Flow+Control+Solutions+for+a+Modern+Grid+Using+SMART+Power+Flow+Controllers-p9781119824350>.



University of Moratuwa



University of Jaffna



National Institute of Technology, New Delhi, India

2023 Calendar – Meetings of IEEE Pittsburgh Section

	Jan	Feb	Mar	Apr	May	June	July	August	Sept	Oct	Nov	Dec
<u>Executive Committee (AdCom)</u>	19 Virtual	16 Virtual	16 Virtual	20 Pitt	18 NextTier	15 Eaton	20 Pitt	19 Duquesne Light	14 Monroeville	19 WVU	16 East Liberty	14 Edgewood CC
<u>Section</u>		23, 24 E-Week; 25 Robot Car	28,29 Science Fair		19 History Dinner	24 Picnic	15 WV - Oglebay	26 Pirates Baseball		26-28 WiE Forum		
<u>Communications</u>									18 Radar			
<u>Computer</u>							10-14 AI Camp		15 AI			
<u>EMBS</u>		6 Microwave Medical	13 Deep Learning							15 BHI Con- ference		
<u>EMCS</u>								24 Reverb				7 Touchstone
<u>Power Electronics</u>					25 Solid State Transformer					12 Power in Aerospace		
<u>PES/IAS</u>	12 Eaton Tour			27 Transmission Planning	16 Tenaska Plant Tour				28 Beaver Valley Tour			
<u>Magnetics</u>												
<u>Nanotechnology</u>									14 Nano Fab Tour			
<u>Robotics</u>								22 Robots				
<u>SPS/CSS</u>								31 Radar	28 Ansys			
<u>EPS/ED</u>					11 ALLVAR							7 Touchstone
<u>Education</u>										20 Cybersec.		12 Play Game
<u>Social Impl Technology</u>	12 Eaton Tour			27 Transmission Planning							29 Weapons	
<u>Upper Mon</u>		6 Microwave Medical	13 Deep Learning						18 Radar	2 – Grid Blackouts; 19 – AI; 25 – Dist. Sys	6 Face Recognition	
<u>Women in Eng'ing</u>										26-28 Forum		
<u>Young Pros</u>					6 Trolley Museum				27 IEEE Benefits			
<u>Life Members</u>					16 Tenaska Plant Tour				28 Beaver Valley Tour			
<u>PACE</u>							19 Fusion					
<u>Student Act</u>												

