United Arab Emirates Section   Prof. Hussain Al Ahmad

Section Vitality

- The Chapter Societies election of the term 2024-2025 was achieved in 26ᵗʰ of Dec. 2023

- The next elections for the Section Committee will be achieved in 1ˢᵗ of Oct. 2024

- Meetings in 2023:

Meeting Title	Date	Event Category	Event Sub-category
The 2022 Annual General Meeting (AGM) of IEEE UAE Section	11-Feb-2023	Nontechnical	Social
IEEE UAE Section Executive Members Introductory Meeting	21-Mar-2023	Administrative	ExCom
IEEE UAE Section Executive Members Social Gathering (Suhoor)	8-Apr-2023	Nontechnical	Social
IEEE UAE Section Executive Members Meeting	3-May-2023	Administrative	ExCom
IEEE UAE Section Executive Members Meeting	23-Aug-2023	Administrative	ExCom
IEEE UAE Section Executive Members Meeting	25-Oct-2023	Administrative	ExCom
Meeting with 2023 IEEE President - Professor Saifur Rahman	1-Dec-2023	Nontechnical	Social

To maintain section vitality, the following are considered:
- Arranging regular section meetings.
- Organizing the IEEE Student Day and the annual meeting.
- Establish partnership with local and regional entities.
- Inviting IEEE students to attend organizations' events.
- Attract international conferences.
- Arrange regular seminars.

We recommend:
- Capitalizing on opportunities to promote the values and benefits of IEEE. One way of doing so is to request an IEEE booth in all conferences and exhibitions that the IEEE UAE sponsors.

- Conducting professional activities to attract more members from the industry.

- Establish UAE Section Award for best volunteer (Activities, influencer, etc)

- Support new student branches.

2023 Achievement:
- Total Meetings: 7
- Events: 78
- Conferences: 28
- **22% increase** in membership:

2022	2023	% Growth
1,497	1,828	22%

- Membership breakdown:

Year	Associate Member	Fellow	Graduate Student Member	Life Fellow	Life Member	Life Senior	Member	Senior Member	Student Member	Total
2022	22	4	110	2	1	5	582	189	582	**1497**
2023	38	7	112	2	2	5	778	214	670	**1828**

- **List of Events:**

#	Event Title	Event Date	Event Category
1	Keynote- Quantum Computing: A Gentle Introduction- Prof. Siddhartha Bhattacharyya : United Arab Emirates Affinity Group,YP	16-Jan-2023	Professional
2	KU-IEEE Workshop Series: Intro to Python : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	23-Jan-2023	Technical
3	Welcome Event to New IEEE Members : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	31-Jan-2023	Nontechnical
4	KU-IEEE Workshop Series: Intro to Arduino : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	31-Jan-2023	Technical
5	Innovative METAVERSE Demo and Competition : United Arab Emirates Section	1-Feb-2023	Technical
6	Participation in UAE University participates in Innovation Week : United Arab Emirates Univ	1-Feb-2023	Technical
7	Knowledge Base 4.0: Towards Intelligent Knowledge Bases in the Age of Big Data and Artificial Intelligence : United Arab Emirates Section Chapter, GRS29	2-Feb-2023	Technical
8	Meeting for planning events of AUS-RAS student branch chapter : United Arab Emirates Sec Jt. Chap, EMB18/CS23/RA24	7-Feb-2023	Technical
9	KU-IEEE Workshop Series: Intro to EV3 Robotics : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	7-Feb-2023	Technical
10	Guest Lecturer : Forensic AI : Skyline University College	8-Feb-2023	Technical
11	The benefits of Adaptive Learning : United Arab Emirates Section Chapter, GRS29	9-Feb-2023	Professional
12	February 21 seminar at University of Dubai: Antennas for Full-Duplex and MIMO Systems to Space-Time Metamaterials : United Arab Emirates Section, MTT17/IM09/AP03	21-Feb-2023	Technical
13	February 22 seminar at RIT Dubai: Trends and Career Perspectives on Antennas and Electromagnetics : United Arab Emirates Section, MTT17/IM09/AP03	22-Feb-2023	Professional
14	Innovative Research Tools for Capstone and Research Students : United Arab Emirates Section	23-Feb-2023	Technical
15	Patent Workshop : United Arab Emirates Section	23-Feb-2023	Technical
16	IEEE-UAEU students Soldering workshop : United Arab Emirates Univ	23-Feb-2023	Technical
17	Sumo Robot Competition : United Arab Emirates Sec Jt. Chap, EMB18/CS23/RA24	25-Feb-2023	Technical
18	Red Crescent Earthquake relief for Syria and Turkiye : Rochester Institute of Technology - Dubai	26-Feb-2023	Humanitarian
19	Internship Experience Symposium : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	27-Feb-2023	Professional
20	Future Skills and Employability Forum : United Arab Emirates Section	28-Feb-2023	Professional
21	Distinguished Lecturer seminar: Design of Compact and Wide-Band Antennas : United Arab Emirates Section, MTT17/IM09/AP03	28-Feb-2023	Technical
22	Seminar: Securing the EV Ecosystem for Safe and Reliable Services andÂ a Secure SmartÂ Grid : United Arab Emirates Affinity Group,YP	1-Mar-2023	Technical
23	Robotics Workshop 1 : American University-Ras Al Khaimah	8-Mar-2023	Technical
24	3rd IEEE International Conference on Computational Intelligence and Knowledge Economy (ICCIKE 2023) : Amity University Dubai	9-Mar-2023	Technical
25	The first Conference on Innovative Smart Grid Technologies, Middle East (ISGT ME 2023) : United Arab Emirates Section	12-Mar-2023	Technical
26	IEEE-Innovative-Smart-Grid-Technologies-Middle-East-2023-Conference : United Arab Emirates Section Chapter, PE31	12-Mar-2023	Technical
27	Personal Branding Workshop : Rochester Institute of Technology - Dubai	15-Mar-2023	Professional

28	Collective Intelligence from biological and social to robotic systems : United Arab Emirates Section	20-Mar-2023	Technical
29	Robotics Workshop 2 : American University-Ras Al Khaimah	20-Mar-2023	Technical
30	IEEE UAE Section and IECEP UAE Meeting : United Arab Emirates Section	21-Mar-2023	Professional
31	IEEE Community Service â€" Iftar â€"E Wajabat : Skyline University College	23-Mar-2023	Humanitarian
32	Deep Learning For Computer Vision: Application to Oil Spill Segmentation : United Arab Emirates Section Chapter, GRS29	18-Apr-2023	Technical
33	Metaverse: What the Future Holds : American University-Ras Al Khaimah	26-Apr-2023	Technical
34	17th IEEE Student Day : United Arab Emirates Section	29-Apr-2023	Technical
35	IEEE International Conference on Blockchain and Cryptocurrency (ICBC 2023) : United Arab Emirates Section	1-May-2023	Technical
36	Machine Learning for Authorship and Malware Analyses : United Arab Emirates Section Chapter, GRS29	17-May-2023	Technical
37	IEEE Innovation Competition -2023 : Skyline University College	18-May-2023	Technical
38	End of academic year gatheringÂ for IEEE Students : United Arab Emirates Univ	20-May-2023	Nontechnical
39	Signal Processing and Artificial Intelligence of Things (AIOT) Research : United Arab Emirates Section	1-Jun-2023	Technical
40	Frequency selectivity in phase-only beamformed user terminal direct radiating arrays : United Arab Emirates Section, MTT17/IM09/AP03	1-Jun-2023	Technical
41	History, Infrastructures, Logistics and Research Activities at the MraRE Center Maldives : United Arab Emirates Section Chapter, GRS29	8-Jun-2023	Technical
42	IEEE STEM Workshop : American University-Ras Al Khaimah	10-Jun-2023	Pre-U STEM Program
43	Applications of AI in Power Electronics - Challenges and Opportunities : United Arab Emirates Section	20-Jun-2023	Technical
44	Seminar on Applications of AI in Power Electronics: Challenges and Opportunities : United Arab Emirates Section Chapter, PE31	20-Jun-2023	Technical
45	IEEE Technology and Engineering Management Society Female CEO Seminar Series : United Arab Emirates Section	26-Jun-2023	Professional
46	5-days short course on Power Electronics Reliability : United Arab Emirates Section Chapter, PE31	31-Jul-2023	Technical
47	Panel discussion on Transportation electrification and renewables as key drivers for optimal smart grid development : United Arab Emirates Section Chapter, PE31	4-Oct-2023	Professional
48	IEEE Meetup : Rochester Institute of Technology - Dubai	4-Oct-2023	Technical
49	Smart Earthing Ecosystem : United Arab Emirates Section Chapter, GRS29	4-Oct-2023	Technical
50	IEEE PHOTO DAY : Manipal Academy of Higher Education-Dubai	15-Oct-2023	Nontechnical
51	Young professional gathering in Gitex : United Arab Emirates Affinity Group,YP	16-Oct-2023	Professional
52	The Future of AI at DEVSLAM : Kuwait Section Affinity Group, YP	19-Oct-2023	Technical
53	IEEE Young Professionals (YP) Meet-up in Dubai : United Arab Emirates Affinity Group,YP	19-Oct-2023	Nontechnical
54	IEEE Young Professional Dinner in Dubai : United Arab Emirates Affinity Group,YP	19-Oct-2023	Nontechnical
55	Capture the Flag: Tri-Tech Cyber Showdown CTF : United Arab Emirates Section	20-Oct-2023	Technical
56	Electrical Engineering general discussion Forum : United Arab Emirates Univ	23-Oct-2023	Professional
57	6G Wireless Research: New Opportunities and Challenges : United Arab Emirates Section CAS04/SSC37/PEL35	31-Oct-2023	Technical
58	Mapping Floods and Landslides using Remote Sensing and Artificial Intelligence for Sustainable Disaster Management : United Arab Emirates Section	6-Nov-2023	Technical
59	Seminar on "Image Processing in Lung Cancer Detection and Treatment" by Prof. Stephen Marshall : United Arab Emirates Section	6-Nov-2023	Technical

60	Call for Paper: The 6th International Conference on Signal Processing and Information Security 2023 : United Arab Emirates Section	8-Nov-2023	Technical
61	Emerson Engineering Competition : Rochester Institute of Technology - Dubai	9-Nov-2023	Technical
62	Women's Contributions in the Field of Information Security : United Arab Emirates Section Affinity Group,WIE	9-Nov-2023	Professional
63	2023 International Workshop on Advanced and Lightweight Security Solutions for 6G Systems (ALSS-6G) : University of Dubai	14-Nov-2023	Technical
64	Empowering SheChange: Women in Engineering for Climate Action and Sustainability in STEM, Industry, and Research : United Arab Emirates Section Affinity Group,WIE	14-Nov-2023	Technical
65	IEEE Joint Conferences DASC/PICom/CBDCom/CyberSciTech 2023 : United Arab Emirates Section Chapter,C16	14-Nov-2023	Technical
66	The 8th IEEE Cyber Science and Technology Congress (CyberSciTech 2023) : United Arab Emirates Section Chapter,C16	14-Nov-2023	Technical
67	The 21st IEEE International Conference on Pervasive Intelligence and Computing (PICom 2023) : United Arab Emirates Section Chapter,C16	14-Nov-2023	Technical
68	The 9th IEEE International Conference on Cloud and Big Data Computing (CBDCom 2023) : United Arab Emirates Section Chapter,C16	14-Nov-2023	Technical
69	The 21st IEEE International Conference on Dependable, Autonomic & Secure Computing (DASC 2023) : United Arab Emirates Section Chapter,C16	14-Nov-2023	Technical
70	MENA Solar Conference (MENA-SC), 15-18 November 2023, in Dubai : United Arab Emirates Section	15-Nov-2023	Technical
71	WETEX Trip : Rochester Institute of Technology - Dubai	15-Nov-2023	Professional
72	Electrical Engineering History and future Workshop : United Arab Emirates Univ	23-Nov-2023	Professional
73	Amity University Dubai Global Partnerships for Sustainable Research Ecosystem in the UAE : Amity University Dubai	28-Nov-2023	Professional
74	Green Wireless: Optimization of Wireless Networks with RF Energy Harvesting : United Arab Emirates Section	28-Nov-2023	Technical
75	Machine Learning and Edge Intelligence: Key Enablers for xG Wireless and IoT : United Arab Emirates Sect Jt Ch, SP01/COM19	29-Nov-2023	Technical
76	Seminar on Resilient Zero-emission Electric Mobility Solutions : United Arab Emirates Section Chapter, PE31	13-Dec-2023	Technical
77	Workshop on CYBERSECURITY PENETRATION TESTING : Skyline University College	14-Dec-2023	Technical
78	The 35th International Conference on Microelectronics, (ICM 2023) : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	17-Dec-2023	Professional

Events Details:

We've compiled a selection of sample events below, highlighting a few with additional details and accompanying photos.

1. **IEEE 2022 AGM**

   The 2022 Annual General Meeting (AGM) of IEEE UAE Section convened on February 11, 2023, marking a pivotal moment for the section as it reflected on achievements, challenges, and future endeavors. Attended by a diverse array of IEEE members, professionals, and stakeholders, the AGM provided a platform for collaborative discourse and strategic planning. Key agenda items included an overview of IEEE, updates on membership growth, and the introduction of new executive committee members. Furthermore, a notable presentation by Dubai Tourism highlighted the services offered by their department to support bidding for and hosting international IEEE conferences.

2. **17th IEEE Student Day**

More than 400 undergraduate students from 14 universities from around the UAE took part in the 17th Institute of Electrical and Electronics Engineers (IEEE) Student Day held at American University of Sharjah (AUS), which recognized outstanding achievements of IEEE student members.

3. **ICSPIS 2023**

The conference featuring a rich program including:

- Keynote Speeches: Distinguished speakers, including Prof. Amin Beheshti (Macquarie University, Australia) and Prof. Benjamin C. M. Fung (McGill University, Canada), presented keynote speeches on the transformative power of generative AI and the role of machine learning in cybersecurity and privacy.
- Panel Discussions: The conference included two panel discussions on "AI and Information Security for Sustainable Future" and "Women in Engineering," where experts addressed critical issues and opportunities in the field.

- Paper Sessions: 48 accepted papers, divided into multiple thematic sessions, provided attendees with the opportunity to delve into cutting-edge research and innovations in artificial intelligence and information security.
- The conference authors represented diverse nationalities and institutions.
- Networking opportunities: The conference provided networking opportunities and social events, enabling attendees to connect with like-minded professionals, exchange ideas, and foster collaboration.
- Awards and Closing Ceremony: The conference concluded with an awards ceremony, recognizing outstanding contributions and achievements, followed by a closing ceremony.

4. **2023 IEEE GreenTech, Sustainability, and Net Zero Policies & Practices Symposium**

The IEEE GreenTech, Sustainability, and Net Zero Policies & Practices Symposium (IEEE GTSNZ) 2023 is designated for reporting recent advancements, practices, challenges, and opportunities in the areas of green technology, sustainability, and net zero emissions. The IEEE-GTSNZ Symposium fosters collaborative efforts and knowledge sharing between government, industry, academia, and the community. The Symposium provides insights into best practices and experiences to address the challenges and collective efforts towards a sustainable and net-zero future.

5. **IEEE GCAIoT 2023**

At the 2023 IEEE GCAIoT, thought leaders and industry experts from academia, government, and industry are gathering to discuss the use of AI & IoT technologies to promote sustainability. The theme for this year is "AI and IoT Technologies towards a Sustainable Future", chosen in light of the global pressing importance of sustainability which is considered essential for shaping the future of the world.

6. **Meeting with 2023 IEEE President - Professor Saifur Rahman**

On December 1, 2023, amidst the bustling atmosphere of COP28 in Dubai, a memorable social event unfolded as the IEEE UAE Section Committee members had the honor of hosting the distinguished 2023 IEEE President, Professor Saifur Rahman. Committee members seized the opportunity to engage with Professor Rahman, exchanging insights, ideas, and aspirations for the future of IEEE and its role in addressing global challenges. As conversations flowed and connections deepened, the event left a lasting mark, serving as a catalyst for continued cooperation for future initiatives.

Students

The UAE Section has 29 student branches and there are initiatives to open more soon. The figure below shows the top 9 branches in UAE.

Student Branch	Count of SB Members	
University of Dubai	176	▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ 176
Khalifa University	112	▮▮▮▮▮▮▮▮▮ 112
American University of Sharjah	80	▮▮▮▮▮▮ 80
Manipal Academy of Higher Education	60	▮▮▮▮ 60
New York University Abu Dhabi	39	▮▮ 39
Skyline University College	36	▮▮ 36
Abu Dhabi Polytechnic	34	▮▮ 34
Birla Inst of Tech & Sci - Dubai	25	▮ 25
United Arab Emirates Univ	25	▮ 25

- The list of activities in 2023 as follow:

#	Event Title	Event Date
1	Emerson Engineering Competition : Rochester Institute of Technology - Dubai	9-Nov-2023
2	IEEE Community Service Wajabat : Skyline University College	23-Mar-2023
3	IEEE Meetup : Rochester Institute of Technology - Dubai	4-Oct-2023
4	IEEE Innovation Competition -2023 : Skyline University College	18-May-2023
5	Guest Lecturer : Forensic AI : Skyline University College	8-Feb-2023
6	Robotics Workshop 1 : American University-Ras Al Khaimah	8-Mar-2023
7	Participation in UAE University participates in Innovation Week : United Arab Emirates Univ	1-Feb-2023
8	Internship Experience Symposium : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	27-Feb-2023
9	Robotics Workshop 2 : American University-Ras Al Khaimah	20-Mar-2023
10	KU-IEEE Workshop Series: Intro to Arduino : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	31-Jan-2023
11	KU-IEEE Workshop Series: Intro to EV3 Robotics : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	7-Feb-2023
12	Electrical Engineering History and future Workshop : United Arab Emirates Univ	23-Nov-2023
13	Workshop on CYBERSECURITY PENETRATION TESTING : Skyline University College	14-Dec-2023
14	IEEE STEM Workshop : American University-Ras Al Khaimah	10-Jun-2023
15	Red Crescent Earthquake relief for Syria and Turkiye : Rochester Institute of Technology - Dubai	26-Feb-2023
16	KU-IEEE Workshop Series: Intro to Python : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	23-Jan-2023
17	Welcome Event to New IEEE Members : Khalifa Univ of Sci, Tech & Res - Abu Dhabi	31-Jan-2023

18	Personal Branding Workshop : Rochester Institute of Technology - Dubai	15-Mar-2023
19	Metaverse: What the Future Holds : American University-Ras Al Khaimah	26-Apr-2023
20	WETEX Trip : Rochester Institute of Technology - Dubai	15-Nov-2023
21	IEEE-UAEU students Soldering workshop : United Arab Emirates Univ	23-Feb-2023
22	End of academic year gathering for IEEE Students : United Arab Emirates Univ	20-May-2023

Affinity Groups

We have two Affinity Groups: WIE and YP.

- The list of activities in 2023 as follow:

#	WIE Event Title	Event Date
1	Collective Intelligence from biological and social to robotic systems : United Arab Emirates Section Affinity Group,WIE	20-Mar-2023
2	Women's Contributions in the Field of Information Security : United Arab Emirates Section Affinity Group,WIE	9-Nov-2023
3	Empowering SheChange: Women in Engineering for Climate Action and Sustainability in STEM, Industry, and Research : United Arab Emirates Section Affinity Group,WIE	14-Nov-2023

#	YP Event Title	Event Date
1	Keynote- Quantum Computing: A Gentle Introduction- Prof. Siddhartha Bhattacharyya : United Arab Emirates Affinity Group,YP	16-Jan-2023
2	Seminar: Securing the EV Ecosystem for Safe and Reliable Services and a Secure Smart Grid : United Arab Emirates Affinity Group,YP	1-Mar-2023
3	Young professional gathering in Gitex : United Arab Emirates Affinity Group,YP	16-Oct-2023
4	IEEE Young Professionals (YP) Meet-up in Dubai : United Arab Emirates Affinity Group,YP	19-Oct-2023
5	IEEE Young Professional Dinner in Dubai : United Arab Emirates Affinity Group,YP	19-Oct-2023

Chapters

UAE Section has 8 technical chapters. Some of them are joint chapters. Communications / Signal Processing Society:

1. Power and Energy Society:
2. Computer Society:
3. Education Society:
4. Robotics and Automation Society / Control Systems Society / Engineering in Medicine and Biology Society:
5. Geoscience and Remote Sensing Society:
6. Microwave Theory & Techniques Society / Antennas and Propagation / Instrumentation & Measurement Society:
7. Power Electronics Society / Solid-State Circuits Society / Circuits and System Society:

All chapters and affinity groups have achieved a positive increase in membership.

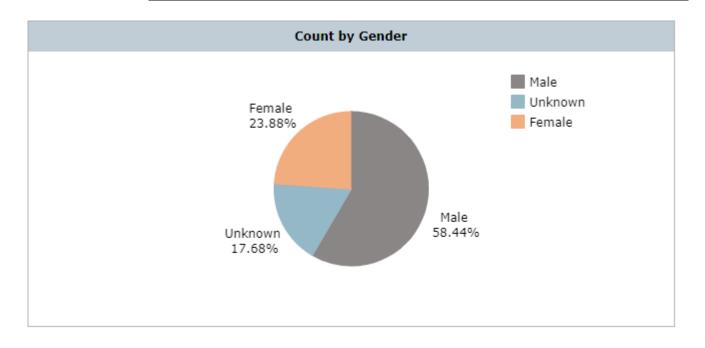| No.	Chapter / Affinity Group	Number of Members		
		2022	2023	%Growth
1	Communications / Signal Processing Society	94	144	53%
2	Computer Society	91	108	19%
3	Education Society	27	35	30%
4	Geoscience and Remote Sensing Society	31	33	6%
5	Microwave Theory & Techniques Society / Antennas and Propagation / Instrumentation & Measurement Society	42	59	40%
6	Power and Energy Society	65	75	15%
7	Power Electronics Society/Solid-State Circuits Society/Circuits and System Society	50	66	32%
8	Robotics and Automation Society / Control Systems Society / Engineering in Medicine and Biology Society	95	178	87%
9	Women in Engineering	87	129	48%
10	Young Professionals	372	571	53%

Industry

The IEEE UAE Section is striving to enrich its relationship with the industry. Here are some of the steps taken toward that:
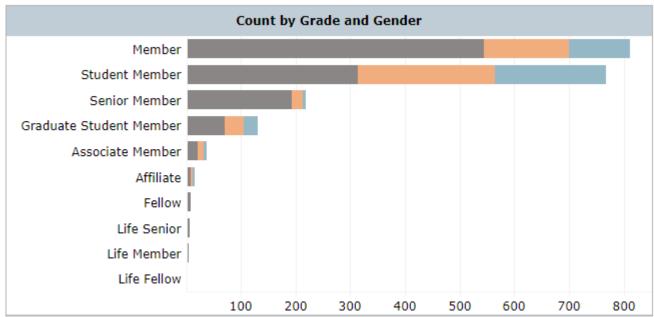
- Engaging industry members to participate in the IEEE Student Day.
- Engaging industry members in the section meetings and annual meetings.
- Inviting industry members to attend technical events like seminars and symposiums.
- Renew the current MoUs with universities and organizations.
- Increase our partnership with the industry through long term MoUs and partnership agreements.
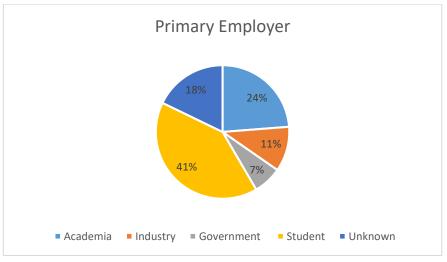- Initiating technical workshops for IEEE members developed by the industry.

Diversity, Equity and Inclusion

The following figures show the membership percentages by gender, grade and employer type. We plan to establish a Diversity, Equity and Inclusion (DEI) committee or create a position for a diversity officer to study the current status of DEI in our section and come up with a diversity strategic plan.

Count by Gender

Count by Grade and Gender

Primary Employer

For further improvements, we suggest:

- Initiating Company Bulk Membership within IEEE.

- Hosting IEEE seminars and competitions.

- Visit the big companies with an engineering background and invite them to join IEEE.

- Encourage our partner companies to host the IEEE students during their intern program.

Activities since the last report

- Successfully completed elections for the 2024-2025 term of technical chapter societies and affinity groups
- Established a new chapter for the Technology and Engineering Management Society (TEMS)

Planned activities

- Webinars
- Seminars
- Conferences
- Student competitions
- Social events

How Region 8 can be of help to your Section, members, and activities

We seek guidance and support from Region 8 in enhancing the diversity of our IEEE UAE Section membership, particularly by increasing participation from industry professionals compared to academia.

Any other issues of interest

No other issues so far.