

**Section Name United Arab Emirates Section**

**Reporting Officer Name Dr. Fatma Taher**

**Section Vitality**

- The election of the term 2021-2022 was successfully completed with MGA assistant in Jan. 2021.
- The next elections will be achieved in Nov. 2022.
- We do not have the practice of Vice-Chair becoming the next Subsection Chair.
- Meetings dates in 2020:
  - 22<sup>nd</sup> of Jan.
  - 12<sup>th</sup> of Apr.
  - 2<sup>nd</sup> of Jun.
  - 27<sup>th</sup> of Aug.
  - 27<sup>th</sup> of Sept.
  - 28<sup>th</sup> of Nov.

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.

**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.

**2020 Achievement:**

- **Total Meetings: 6 ExCom**
- **Events: 43 events**
- **Results:**
  - Many members are promoted to senior membership.
  - The number of the graduate students is increased as more graduate students joined IEEE , 38% from last year .
- **List of Events:**

Event Title	Event Date	Event Category
Advocating Sustainability Through Green & Smart Buildings : United Arab Emirates Sec Jt. Chap, EMB18/CS23/RA24	1/20/2020 9:26	Technical
Emirati Women in Engineering and the International Corporate Sector in Technology : United Arab Emirates Section Affinity Group,WIE	1/28/2020 12:00	Professional
Officers Meeting 1 : United Arab Emirates Section Chapter,C16	2/2/2020 13:33	Administrative
1. Industrial Revolution IV; Photovoltaic Systems & Electric Vehicles Advanced Role in Smart Grid Stabilities : United Arab Emirates Sec Jt. Chap, EMB18/CS23/RA24	2/4/2020 9:26	Technical
Industrial Revolution IV; Photovoltaic Systems & Electric Vehicles Advanced Role in Smart Grid Stabilities : United Arab Emirates Section	2/4/2020 14:00	Technical
Industrial Revolution IV; Photovoltaic Systems & Electric Vehicles Advanced Role in Smart Grid Stabilities. : United Arab Emirates Affinity Group,YP	2/4/2020 14:00	Professional
RSMP 2020 Workshop on Robotic Simulators for Medical Procedures : United Arab Emirates Section	2/6/2020 11:00	Technical
IEEE UAE Annual General Meeting - 2019 : United Arab Emirates Section	2/8/2020 10:00	Professional

Discussing the GRSS outcomes of 2019 and collecting recommendations for 2020 : United Arab Emirates Section Chapter, GRS29	2/9/2020 10:00	Technical
7th Research Symposium on High-Voltage Engineering and Power Systems : United Arab Emirates Section Chapter, PE31	2/13/2020 8:30	Technical
How the UAE is Building a Future Based on Tech Innovation : United Arab Emirates Section	2/17/2020 12:30	Professional
Electrical Vehicles and the Power Grid - Emergence and Convergence : United Arab Emirates Section Affinity Group, WIE	2/20/2020 12:00	Technical
IBM Z Days Coding Workshop : United Arab Emirates Section Affinity Group, WIE	2/25/2020 17:00	Technical
Women in Engineering Forum 2020 : United Arab Emirates Section Affinity Group, WIE	3/9/2020 8:30	Technical
UAE Math Day : United Arab Emirates Section	3/14/2020 8:00	Professional
Maharat min Google (with certification of attendance from Google : United Arab Emirates Section Chapter, C16	4/27/2020 10:00	Technical
Future of Education after COVID-19 : United Arab Emirates Section Affinity Group, WIE	6/21/2020 18:00	Professional
Officers Meeting 2 : United Arab Emirates Section Chapter, C16	8/23/2020 13:39	Administrative
Advances in hyperspectral data processing for remote sensing applications : United Arab Emirates Section Chapter, GRS29	8/26/2020 15:00	Technical
Webinar entitled "Forces of Change in the Digital Age" by Prof. Kamal Youcef-Toumi, IEEE-UAE Distinguished Seminar Series - Fall 20202 : New York University Abu Dhabi	9/6/2020 13:00	Technical
Webinar entitled "Forces of Change in the Digital Age" by Prof. Kamal Youcef-Toumi, IEEE-UAE Distinguished Seminar Series - Fall 20202 : New York University Abu Dhabi	9/6/2020 13:00	Technical
Webinar Invitation: Nanomaterials for Future Photovoltaic Devices : United Arab Emirates Section	9/10/2020 13:00	Technical
Webinar Invitation: How to Build Smart City Applications within the Internet of Things Context : American Univ of Sharjah	9/16/2020 17:00	Professional
Webinar via Google Meet: "Life Cycle of Satellite Design and Development" : United Arab Emirates Section, MTT17/IM09/AP03	9/24/2020 17:00	Technical
Digital Transformation: what it is, how to leverage it? : United Arab Emirates Section	10/7/2020 11:00	Technical
IEEE student day seminar : Rochester Institute of Technology - Dubai	10/8/2020 12:00	Nontechnical
Big Data for Smart and Connected Health : United Arab Emirates Section	10/14/2020 20:00	Professional
Big Data for Smart and Connected health Webinar on 14th Octobe : United Arab Emirates Section Chapter, C16	10/14/2020 20:00	Technical
Women in Engineering Forum 2020 (Virtual) : United Arab Emirates Section Affinity Group, WIE	10/19/2020 9:00	Professional
From Cognition to Intelligence in Communications Networks : United Arab Emirates Sect Jt Ch, SP01/COM19	10/19/2020 16:00	Technical
IEEE ICIP 2020 is approaching! Sign up for free. : United Arab Emirates Sect Jt Ch, SP01/COM19	10/25/2020 9:00	Technical
27th IEEE International Conference on Image Processing (ICIP 2020) : United Arab Emirates Sect Jt Ch, SP01/COM19	10/25/2020 9:00	Technical
Power-efficient Convolutional Neural Network (CNN) Hardware Accelerators : United Arab Emirates Section CAS04/SSC37/PEL35	10/28/2020 18:30	Technical
EV and the power grid : Rochester Institute of Technology - Dubai	11/2/2020 13:30	Technical
Webinar "HIGH POWER ELECTROMAGNETICS SYSTEMS-Antennas and Sources for Radiated Gigawatt Applications" : United Arab Emirates Section, MTT17/IM09/AP03	11/4/2020 16:00	Technical
Enhancement of Intelligent Systems for Electrical Power Applications	11/19/2020	Technical

using Heuristic Optimization Techniques : United Arab Emirates Sect Jt Ch, SP01/COM19	14:30	
Enhancement of Intelligent Systems for Electrical Power Applications Using Heuristic Optimization Techniques : United Arab Emirates Affinity Group,YP	11/19/2020 14:30	Technical
Cyber Security - Threat Intelligence : United Arab Emirates Sect Jt Ch, SP01/COM19	11/24/2020 14:30	Technical
3rd International Conference on Signal Processing and Information Security (ICSPIS 2020) : United Arab Emirates Sect Jt Ch, SP01/COM19	11/25/2020 9:00	Technical
Introduction to Blockchain and Applications : United Arab Emirates Section CAS04/SSC37/PEL35	11/26/2020 18:30	Technical
IEEE Leaders Interview Series : United Arab Emirates Section	11/28/2020 10:00	Professional
Women in Tech Summit IEEE GCAIoT20 : United Arab Emirates Section Affinity Group,WIE	12/15/2020 11:30	Technical
WEBINAR INVITATION: POWER QUALITY IN DISTRIBUTION SYSTEMS : United Arab Emirates Section Chapter, PE31	12/21/2020 14:00	Technical

**Events Details:**

Created the IEEE-UAE Innovation & Research Program as shown below:




## The IEEE-UAE Innovation & Research Program: Distinguished Seminar Series – Fall 2020

	<p><i>Prof. Kamal Toumi</i> <b>Director of the Mechatronics Research Laboratory</b> Massachusetts Institute of Technology USA</p>	
	<p><i>Prof. Athina Petropulu</i> <b>Director of Signal Processing Research Laboratory</b> Rutgers, The State University of New Jersey USA</p>	
	<p><i>Prof. Mohamed-Slim Alouini</i> <b>Director of Communication Theory Research Laboratory</b> King Abdulla University of Science and Technology KSA</p>	
	<p><i>Prof. Josep Jornet</i> <b>Director of Ultra-broadband Nanonetworking Research Laboratory</b> Northeastern University USA</p>	
	<p><i>Prof. Ahmad Alabdulkareem</i> <b>Co-Director of Center for Complex Engineering Systems</b> KACST &amp; Massachusetts Institute of Technology KSA &amp; USA</p>	
	<p><i>Prof. Muriel Medard</i> <b>Director of Network Coding Research Laboratory</b> Massachusetts Institute of Technology USA</p>	
	<p><i>Prof. Sofiene Affes</i> <b>Director of Wireless Research Laboratory</b> National Institute of Scientific Research Canada</p>	
	<p><i>Prof. Konstantina Nikita</i> <b>Director of the Mobile Radiocommunications Lab</b> National Technical University of Athens Greece</p>	
Organized by:		
<p><i>Prof. Raed Shubair</i> Chair, IEEE-UAE Innovation &amp; Research IEEE Regional Director, Middle East NYU Abu Dhabi &amp; MIT <a href="mailto:rshubair@mit.edu">rshubair@mit.edu</a></p>		<p><b>Mohamed AlHajri</b> Distinguished Seminar Series Co-organizer Claude Shannon Communication Network Lab MIT <a href="mailto:malhajri@mit.edu">malhajri@mit.edu</a></p>
Inquiries: <a href="mailto:raed.shubair@nyu.edu">raed.shubair@nyu.edu</a>		

## Students

List of Student Branches:

Abu Dhabi University  
Ajman Univ College of Science & Tech  
American Univ of Ras Al Khaimah  
American Univ of Sharjah  
Amity University Dubai  
Birla Inst Of Tech & Sci - Dubai Campus  
British University in Dubai  
Higher Colleges of Technology  
Khalifa Univ of Sci, Tech & Res (KUSTAR)  
Khalifa Univ of Sci, Tech & Res - Abu Dhabi  
Manipal Academy of Higher Education-Dubai  
New York University Abu Dhabi  
Rochester Institute of Technology - Dubai  
Shaheed Zulfikar Ali Bhutto Inst of Sci - Dubai  
Skyline University College  
United Arab Emirates Univ  
Univ of Bolton Academic Centre-Ras Al Khaimah  
University of Sharjah  
University of Wollongong in Dubai (UOWD)  
Zayed University

## Affinity Groups

Two, Women in Engineering and Young Professional. No new groups created.

1. Women in Tech Summit IEEE GCAIoT20 : United Arab Emirates Section Affinity Group,WIE
2. Enhancement of Intelligent Systems for Electrical Power Applications Using Heuristic Optimization Techniques : United Arab Emirates Affinity Group,YP
3. Women in Engineering Forum 2020 (Virtual) : United Arab Emirates Section Affinity Group,WIE
4. Future of Education after COVID-19 : United Arab Emirates Section Affinity Group,WIE
5. Electrical Vehicles and the Power Grid - Emergence and Convergence : United Arab Emirates Section Affinity Group,WIE
6. IBM Z Days Coding Workshop : United Arab Emirates Section Affinity Group,WIE
7. Electrical Vehicles and the Power Grid - Emergence and Convergence : United Arab Emirates Section Affinity Group,WIE
8. Industrial Revolution IV; Photovoltaic Systems & Electric Vehicles Advanced Role in Smart Grid Stabilities. : United Arab Emirates Affinity Group,YP
9. Emirati Women in Engineering and the International Corporate Sector in Technology : United Arab Emirates Section Affinity Group,WIE

## Chapters

We have 14 Technical Chapter Societies, 10 of them are under 4 Joint Chapters

- 1 Computer Society
- 2 RA/CS/EMB
- 3 Com/PS
- 4 Power & Energy Society
- 5 MicroW/Antennas/Instr.
- 6 Geoscience and Remote Sensing
- 7 Education Society
- 8 PE/SSC



There are no newly formed chapters, however we are studying the plan to creating of Computational Intelligence Society chapter and Industrial Applications Society chapter.

Some of the activity's events:

1. Advocating Sustainability Through Green & Smart Buildings : United Arab Emirates Sec Jt. Chap, EMB18/CS23/RA24
2. Officers Meeting 1 : United Arab Emirates Section Chapter,C16
3. Industrial Revolution IV; Photovoltaic Systems & Electric Vehicles Advanced Role in Smart Grid Stabilities : United Arab Emirates Sec Jt. Chap, EMB18/CS23/RA24
4. Discussing the GRSS outcomes of 2019 and collecting recommendations for 2020 : United Arab Emirates Section Chapter, GRS29
5. 7th Research Symposium on High-Voltage Engineering and Power Systems : United Arab Emirates Section Chapter, PE31
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9. Webinar via Google Meet: "Life Cycle of Satellite Design and Development" : United Arab Emirates Section, MTT17/IM09/AP03
10. Big Data for Smart and Connected health Webinar on 14th October : United Arab Emirates Section Chapter,C16
11. From Cognition to Intelligence in Communications Networks : United Arab Emirates Sect Jt Ch, SP01/COM19
12. IEEE ICIP 2020 is approaching! Sign up for free. : United Arab Emirates Sect Jt Ch, SP01/COM19
13. 27th IEEE International Conference on Image Processing (ICIP 2020) : United Arab Emirates Sect Jt Ch, SP01/COM19
14. Power-efficient Convolutional Neural Network (CNN) Hardware Accelerators : United Arab Emirates Section CAS04/SSC37/PEL35
15. Webinar "HIGH POWER ELECTROMAGNETICS SYSTEMS-Antennas and Sources for Radiated Gigawatt Applications" : United Arab Emirates Section, MTT17/IM09/AP03
16. Enhancement of Intelligent Systems for Electrical Power Applications using Heuristic Optimization Techniques : United Arab Emirates Sect Jt Ch, SP01/COM19
17. Cyber Security - Threat Intelligence : United Arab Emirates Sect Jt Ch, SP01/COM19
18. 3rd International Conference on Signal Processing and Information Security (ICSPIS 2020) : United Arab Emirates Sect Jt Ch, SP01/COM19
19. Introduction to Blockchain and Applications : United Arab Emirates Section CAS04/SSC37/PEL35
20. WEBINAR INVITATION: POWER QUALITY IN DISTRIBUTION SYSTEMS : United Arab Emirates Section Chapter, PE31

## Industry

The IEEE UAE Section is striving to enrich its relationship with the industry. Here are some of the steps taken toward that:

- All the below was done online due to the COVID 19.
- Engaging industry members to participate in the IEEE Student Day online.
- Engaging industry members in the Section meetings and Annual meeting through Zoom or other platforms.
- 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.

## 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.

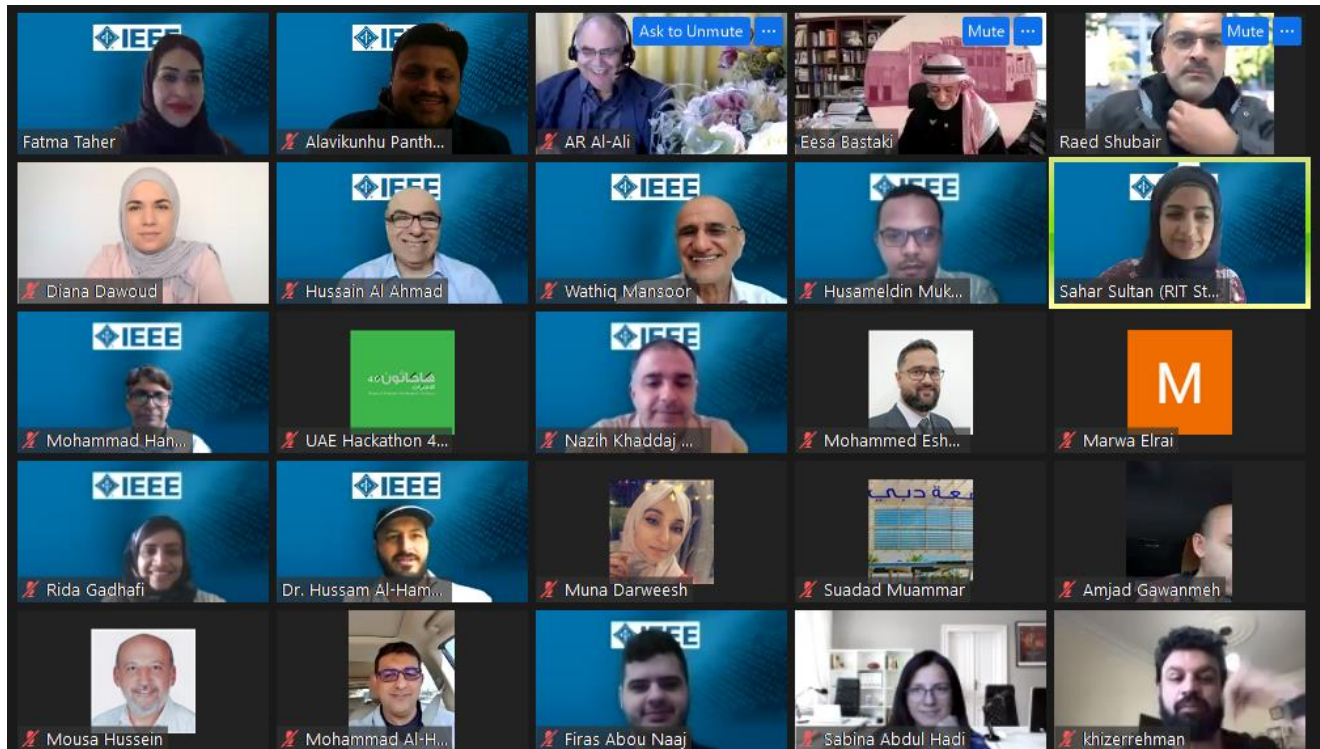
- Encourage our partner companies to host the IEEE students during their intern program.

### Activities since the last report

Refer to the Table in pages 1, 2 and 3.

### Planned activities

- Webinars
- Online Poster presentation
- Digital photography competitions
- Any celebration events ( AGM was held on 27<sup>th</sup> Feb.2021).



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

1. In the bidding for some international conferences.
2. Students activities .
3. Increased the Financial support for the students , chapters.

### Any other issues of interest

No other issues so far.