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:
  - 22nd of Jan.
  - 12th of Apr.
  - 2nd of Jun.
  - 27th of Aug.
  - 27th of Sept.
  - 28th 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:**

<table>
<thead>
<tr>
<th>Event Title</th>
<th>Event Date</th>
<th>Event Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emirati Women in Engineering and the International Corporate Sector in Technology : United Arab Emirates Section Affinity Group,WIE</td>
<td>1/28/2020 12:00</td>
<td>Professional</td>
</tr>
<tr>
<td>Officers Meeting 1 : United Arab Emirates Section Chapter,C16</td>
<td>2/2/2020 13:33</td>
<td>Administrative</td>
</tr>
<tr>
<td>Industrial Revolution IV; Photovoltaic Systems &amp; Electric Vehicles Advanced Role in Smart Grid Stabilities : United Arab Emirates Section</td>
<td>2/4/2020 14:00</td>
<td>Technical</td>
</tr>
<tr>
<td>Industrial Revolution IV; Photovoltaic Systems &amp; Electric Vehicles Advanced Role in Smart Grid Stabilities. : United Arab Emirates Affinity Group,YP</td>
<td>2/4/2020 14:00</td>
<td>Professional</td>
</tr>
<tr>
<td>RSMP 2020 Workshop on Robotic Simulators for Medical Procedures : United Arab Emirates Section</td>
<td>2/6/2020 11:00</td>
<td>Technical</td>
</tr>
<tr>
<td>IEEE UAE Annual General Meeting - 2019 : United Arab Emirates Section</td>
<td>2/8/2020 10:00</td>
<td>Professional</td>
</tr>
<tr>
<td>Event Description</td>
<td>Date</td>
<td>Time</td>
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<td>----------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Discussing the GRSS outcomes of 2019 and collecting recommendations for 2020 : United Arab Emirates Section, GRS29</td>
<td>2/9/2020</td>
<td>10:00</td>
</tr>
<tr>
<td>7th Research Symposium on High-Voltage Engineering and Power Systems : United Arab Emirates Section, PE31</td>
<td>2/13/2020</td>
<td>8:30</td>
</tr>
<tr>
<td>How the UAE is Building a Future Based on Tech Innovation : United Arab Emirates Section</td>
<td>2/17/2020</td>
<td>12:30</td>
</tr>
<tr>
<td>Electrical Vehicles and the Power Grid - Emergence and Convergence : United Arab Emirates Section Affinity Group, WIE</td>
<td>2/20/2020</td>
<td>12:00</td>
</tr>
<tr>
<td>IBM Z Days Coding Workshop : United Arab Emirates Section Affinity Group, WIE</td>
<td>2/25/2020</td>
<td>17:00</td>
</tr>
<tr>
<td>UAE Math Day : United Arab Emirates Section</td>
<td>3/14/2020</td>
<td>8:00</td>
</tr>
<tr>
<td>Maharat min Google (with certification of attendance from Google : United Arab Emirates Section Chapter, C16)</td>
<td>4/27/2020</td>
<td>10:00</td>
</tr>
<tr>
<td>Future of Education after COVID-19 : United Arab Emirates Section Affinity Group, WIE</td>
<td>6/21/2020</td>
<td>18:00</td>
</tr>
<tr>
<td>Officers Meeting 2 : United Arab Emirates Section Chapter, C16</td>
<td>8/23/2020</td>
<td>13:39</td>
</tr>
<tr>
<td>Advances in hyperspectral data processing for remote sensing applications : United Arab Emirates Section Chapter, GRS29</td>
<td>8/26/2020</td>
<td>15:00</td>
</tr>
<tr>
<td>Webinar entitled &quot;Forces of Change in the Digital Age&quot; by Prof. Kamal Youcef-Toumi, IEEE-UAE Distinguished Seminar Series - Fall 2020 : New York University Abu Dhabi</td>
<td>9/6/2020</td>
<td>13:00</td>
</tr>
<tr>
<td>Webinar entitled &quot;Forces of Change in the Digital Age&quot; by Prof. Kamal Youcef-Toumi, IEEE-UAE Distinguished Seminar Series - Fall 2020 : New York University Abu Dhabi</td>
<td>9/6/2020</td>
<td>13:00</td>
</tr>
<tr>
<td>Webinar Invitation: Nanomaterials for Future Photovoltaic Devices : United Arab Emirates Section</td>
<td>9/10/2020</td>
<td>13:00</td>
</tr>
<tr>
<td>Webinar Invitation: How to Build Smart City Applications within the Internet of Things Context : American Univ of Sharjah</td>
<td>9/16/2020</td>
<td>17:00</td>
</tr>
<tr>
<td>Webinar via Google Meet: &quot;Life Cycle of Satellite Design and Development&quot; : United Arab Emirates Section, MTT17/IM09/AP03</td>
<td>9/24/2020</td>
<td>17:00</td>
</tr>
<tr>
<td>Digital Transformation: what it is, how to leverage it? : United Arab Emirates Section</td>
<td>10/7/2020</td>
<td>11:00</td>
</tr>
<tr>
<td>IEEE student day seminar : Rochester Institute of Technology - Dubai</td>
<td>10/8/2020</td>
<td>12:00</td>
</tr>
<tr>
<td>Big Data for Smart and Connected Health : United Arab Emirates Section</td>
<td>10/14/2020</td>
<td>20:00</td>
</tr>
<tr>
<td>Big Data for Smart and Connected health Webinar on 14th Octobe : United Arab Emirates Section Chapter, C16</td>
<td>10/14/2020</td>
<td>20:00</td>
</tr>
<tr>
<td>Women in Engineering Forum 2020 (Virtual) : United Arab Emirates Section Affinity Group, WIE</td>
<td>10/19/2020</td>
<td>9:00</td>
</tr>
<tr>
<td>From Cognition to Intelligence in Communications Networks : United Arab Emirates Sect Jt Ch, SP01/COM19</td>
<td>10/19/2020</td>
<td>16:00</td>
</tr>
<tr>
<td>IEEE ICIP 2020 is approaching! Sign up for free. : United Arab Emirates Sect Jt Ch, SP01/COM19</td>
<td>10/25/2020</td>
<td>9:00</td>
</tr>
<tr>
<td>27th IEEE International Conference on Image Processing (ICIP 2020) : United Arab Emirates Sect Jt Ch, SP01/COM19</td>
<td>10/25/2020</td>
<td>9:00</td>
</tr>
<tr>
<td>Power-efficient Convolutional Neural Network (CNN) Hardware Accelerators : United Arab Emirates Section CAS04/SSC37/PEL35</td>
<td>10/28/2020</td>
<td>18:30</td>
</tr>
<tr>
<td>EV and the power grid : Rochester Institute of Technology - Dubai</td>
<td>11/2/2020</td>
<td>13:30</td>
</tr>
<tr>
<td>Webinar &quot;HIGH POWER ELECTROMAGNETICS SYSTEMS-Antennas and Sources for Radiated Gigawatt Applications&quot; : United Arab Emirates Section, MTT17/IM09/AP03</td>
<td>11/4/2020</td>
<td>16:00</td>
</tr>
<tr>
<td>Enhancement of Intelligent Systems for Electrical Power Applications</td>
<td>11/19/2020</td>
<td></td>
</tr>
<tr>
<td>Event</td>
<td>Date</td>
<td>Time</td>
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<td>---------------------------------------------------------</td>
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<tr>
<td>Using Heuristic Optimization Techniques : United Arab Emirates Sect Jt Ch, SP01/COM19</td>
<td>11/19/2020</td>
<td>14:30</td>
</tr>
<tr>
<td>Cyber Security - Threat Intelligence : United Arab Emirates Sect Jt Ch, SP01/COM19</td>
<td>11/25/2020 9:00</td>
<td></td>
</tr>
<tr>
<td>Introduction to Blockchain and Applications : United Arab Emirates Section CAS04/SSC37/PEL35</td>
<td>11/28/2020 10:00</td>
<td></td>
</tr>
<tr>
<td>IEEE Leaders Interview Series : United Arab Emirates Section</td>
<td>12/15/2020 11:30</td>
<td></td>
</tr>
<tr>
<td>Women in Tech Summit IEEE GCAIoT20 : United Arab Emirates Section Affinity Group, WIE</td>
<td>12/21/2020 14:00</td>
<td></td>
</tr>
<tr>
<td>WEBINAR INVITATION: POWER QUALITY IN DISTRIBUTION SYSTEMS : United Arab Emirates Section Chapter, PE31</td>
<td>12/21/2020 14:00</td>
<td></td>
</tr>
</tbody>
</table>
Events Details:
Created the IEEE-UAE Innovation & Research Program as shown below:

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

Prof. Kamal Toumi
Director of the Mechatronics Research Laboratory
Massachusetts Institute of Technology
USA

Prof. Athina Petropulu
Director of Signal Processing Research Laboratory
Rutgers, The State University of New Jersey
USA

Prof. Mohamed-Slim Alouini
Director of Communication Theory Research Laboratory
King Abdulaziz University of Science and Technology
KSA

Prof. Josep Jornet
Director of Ultra-broadband Nanonetworking Research Laboratory
Northeastern University
USA

Prof. Ahmad Alabdulkareem
Co-Director of Center for Complex Engineering Systems
KACST & Massachusetts Institute of Technology
KSA & USA

Prof. Muriel Medard
Director of Network Coding Research Laboratory
Massachusetts Institute of Technology
USA

Prof. Sofiene Affes
Director of Wireless Research Laboratory
National Institute of Scientific Research
Canada

Prof. Konstantina Nikita
Director of the Mobile Radiocommunications Lab
National Technical University of Athens
Greece

Organized by:

Prof. Raed Shubair
Chair, IEEE-UAE Innovation & Research
IEEE Regional Director, Middle East
NYU Abu Dhabi & MIT
rshubair@mit.edu

Mohamed AlHajri
Distinguished Seminar Series Co-organizer
Claude Shannon Communication Network Lab
MIT
malhajri@mit.edu

Inquiries: raed.shubair@nyu.edu
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
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

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
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:

2. Officers Meeting 1: United Arab Emirates Section Chapter,C16
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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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.
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 27th 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.