

**Iran Section** 

Vahid Ahmadi

# **IEEE Iran Section Report**

April 2022

1



## **Table of Contents**

Affinity Groups
Chapters4
Industry
Activities since the last report
Planned activities
How Region 8 can be of help to your Section, members, and activities7
Executive Team
The 12 <sup>th</sup> IEEE Iran Section Awards Ceremony
Pictures



### Section Vitality

The last elections have been in November 2020, and Prof. Vahid Ahmadi (past Vice-Chair) was elected as the Chair and Prof. Hossein Askarian Abyaneh was elected as the Vice-Chair. Also, Dr. Maryam Tayefeh Mahmoudi as Secretary and Dr. Mohammadreza Yousefi as Treasurer. Iran Section's next election is in November 2022. Some activities will be conducted in order to make the Vice-Chair become the next Chair however, it depends on the final results of the elections. Iran Section holds meetings at the end of each month (see Picture 3). Since the last report, four meetings were held focusing on the section's strategic plan (one of the most important tasks in which all committees, affinity groups and chapters are involved in developing the plan), reviewing awards nominees, planning for the 12<sup>th</sup> Iran Section Awards Ceremony.

### Students

Currently, we have 58 Student Branches (SB). Some of the members of SBs are members of the Students Activities Committee (SAC) and all 15 committees of the Section which helps the section body to be more dynamic.

- We have conducted the 12<sup>th</sup> IEEE Iran Section Awards Ceremony which this year was held virtually (December 2021). This meeting is very important due to the gathering of the whole section and beyond. This year, the ceremony had the honor of hosting Prof. Saifur Rahman, 2022-2023 IEEE Director-Elect, electrical and electronics prestigious professors from all over Iran, industry entrepreneurs and deans, counselors, and student branches. Also, about 350 online individuals have participated in this tremendous event. The full report of this ceremony is given in the final section.
- The 20<sup>th</sup> Annual Meeting with the Executive Committee of IEEE Iran Section and Student Branches' Counselors. In the presence of the executive committee, professors, counselors and members of the student branches (December 2021).
- Achieving the 29<sup>th</sup> Place in the World in IEEEXtreme Competition by Khajeh Nasir Toosi University of Technology (KNTU) Student Branch
- Achieving the second position of top Student Branch in the Harekat festival by Shahr-e Kord Technical and Vocational College. This festival is one the important festivals in the country which is held annually
- Achieving the position of the best counselor in the Harekat festival by Shahr-e Kord Technical and Vocational College.
- •

### Affinity Groups

### WiE

### Mission & Vision

- Expanding WIE network by collaborating with similar scientific and industrial groups and associations such as: Association of Women Entrepreneurs, Iranian Women in Photonics, Women in AI, Academy of Science Women in Engineering, etc. in order to hold webinars, workshops, internships, etc.
- Expanding WIE network representatives in various universities, research institutes and industries among academics and student branches as well as professional engineers.
- Participating actively in national conferences and workshops to promote networking among WIE members and introduce WIE objectives, and hold empowering workshops and side meetings by inviting scholars and experts from academic, industry and research institutes.
- Plan for webinars, virtual and online workshops and presentations by inviting a broad spectrum of experts in education and industry.
- Expanding international communications to interact and collaborate with other WIE committees worldwide, especially in Region 8, to exchange experiences and to promote the potential and expertise of Iranian women in related international events.
- Identifying and disseminating the information related to the WIE members' achievements via the website of the IEEE Iranian branch and Region 8 Newsletter.
- Indicating the methodology of executing WIE's objectives in universities and industry by defining and classifying the essential activities, such as: Launching academic/technical/job advisors among researchers, engineers, scientists, industry experts, academics and senior students to mentor young students.
- Interacting and collaborating with other Iran Section IEEE Committees.



- Setting up the WIE membership site or via other social networks and WIE members database in order to facilitate future interactions and communications with them.
- Examining how to promote the effective and competent presence of women in the area of technology and engineering science, especially in Electrical and Computer Engineering.
- Encouraging and promoting young students (especially WIE members) to achieve leadership positions in the industry by arranging and organizing enrichment events and workshops.

### Activities done by WiE since the last report

Leading Women in Engineering Webinar (1)

Leading Women in Engineering Webinar (2)

Leading Women in Engineering Webinar (3)

Entrepreneurship Roundtable: Intimate meeting with successful women entrepreneurs (virtually)

### **Educational Activities Committee (EAC)**

- Key Concepts in Blockchain Technology Workshop
- Python Training Workshop
- Hyperledger Fabric Technology Workshop
- How to Write a Research Paper Webinar
- Disruptive Change in University Educational methods After Covid 19 Webinar
- Discover the Golden Point Webinar
- Lecture by Eng. Hassan Etaat, Career Path Design for young graduates
- Lecture by Dr. Mehdi Shami Zanjani on digital transformation
- Lecture by Dr. Karim Mohammadpour Aghdam, Industry Relations Panel
- Near Field Antenna Pattern Measurement Webinar
- Swarm Robotics in Oil Spill Monitoring and Cleanup Webinar
- Introduction to IEEE Women in Engineering
- Haptic Technology in Intraocular Surgeries Webinar
- The first course of workshops for managers and activists in the field of Internet of Things with LoRaWAN approach,
- Step by step principles of starting and developing a startup,
- Developing a business plan and model,
- Digital marketing,
- Legal issues of starting a business,
- Interpersonal Influence in Computer-Mediated Interactions.
- Speech by Maciej Borówka, Chair of the IEEE District 8 Student Activities Committee
- Speech by Prasanth Mohan, Student Awards Officer, IEEE MGA Student Activities Committee

### Chapters

Currently, we have 8 active Technical Chapters as follows:

- 1) Communications and Information Theory Joint Chapter
- 2) Control Systems Joint Chapter
- 3) Electromagnetics and Photonics Joint Chapter
- 4) Power Joint Chapter
- 5) Electronics Joint Chapter
- 6) Computer Society
- 7) Computer Society
- 8) Electronics Chapter

### Activities done by Technical Chapters

- Call for Control Chapter Elections
- Call for Electromagnetic and Photonic Chapter Elections
- Call for Computer Society Elections
- Call for Power Chapter Elections
- Call for Electronics Chapter Elections



- Round Table on Sustainable Electricity Supply, peak load 1401 and after (Virtually)
- The second meeting of the Round Table on Sustainable Electricity Supply, peak load 1401 (2022) and after (Virtually)
- Cybersecurity and Resilience Enhancement of Smart Grids Webinar
- Fault Location in Power Network using Time Reversal Theory Webinar
- The third meeting of the Round Table on Sustainable Electricity Supply, peak load 1401 (2022) and after (Virtually)

### Industry

### Internship Opportunities and Student Oriented Activities

- IEEE Iran Section elects the chair of the Industrial Relations Committee every two years. Eng. Hossein Riazi is in charge of the 20212-2022 term, and he is currently an Ambassador for Industry in AFI
- We have 15 internship opportunities this year, some of them are now active as full-time employees in top companies in the country
- Support for Amirkabir University of Technology CoOp project
- Industrial Relations Committee page is active is available on the Iran Section website. All content related to the industry will be stored and published through our web page. Also, we refer to the published content via all section/student branches and social media to make the content available to students and the public faster and easier.
- Our Communication with students is through the Iran Section website so that all content related to the industry will be stored and published is available in the Industrial Relations Committee page. Also, we have launched a place for job opportunities as a Job Site, <u>https://jobsite.ieee.org.ir/</u>. Job Site is for those who are seeking job opportunities and also companies that have job offers/ opportunities (employer and employee)
- Supporting student activities.
- Supporting and funding student visits and trips.
- Sponsored and funded two IEEE Iran Section annual meetings.
- Holding online events/ webinars for students:
- Discover the Golden Point Webinar: with the approach of developing personal abilities in order to discover the secret of success and job satisfaction, by Dr. Saeed Saadat, Director of Tehran Institute of Technology

### Mentorship

- Job Site is a place for those who are in need of mentorship, have any questions and any help for career design and opportunities. We are trying to connect expert people (with high experience from well-known companies/trade unions such as Iranian Telecommunication Industries Syndicate) to individuals which are in need of consult.
- IEEE Iran Section IRC is formed of top, well known and highly experienced industry individuals as well as active students/volunteers who are available for helping and consulting section student members in their relevant fields

### **Engagements with Companies**

- Establishing a connection between the Iran section and the Payvast monthly (the most authoritative monthly in the field of communication) and publishing a history of the IEEE Iran Section in one of its chapters
- Encourage and promote industry people and active organizations for volunteer cooperation with IEEE Iran Section.
- Our active industry partnerships are well-known companies/trade unions in the country which have been mentioned already in our reports however they are listed as follows:
  - o Iranian Telecommunication Industries Syndicate
  - Paya Communication Industries
  - Mobinnet Telecommunication Company
  - Nian Electronic Co.
  - o Faraz Co.
  - R & D Development Company (Teta)
  - o Azmoon Keyfiat Co.
  - Karen Antennas Technology Co.

- We have 6 signed partnerships this year as follows:
  - o Crouse Manufacturing Industries
  - Pooyandegan Rah Saadat Co.
  - Avid Net Technology
  - https://psp.ir/power
  - Faravid Co.
  - Monenco Iran Consulting Engineers

### Entrepreneurship

- Participation of industries to request the need for training in relevant standards
- Participation of industries to hold the SmartData Challenge

### **Events with Industry**

- Awarding two industrial awards in The 12th IEEE Iran Section Awards Ceremony
- to the following:
  - o Top Entrepreneur Award: Eng. Abdolreza Yaghoobzadeh, Director of Pooyandegan Rah Saadat Co.
  - Veteran Engineer Award: Hamid Keshavarz Touchaei, Director of Crouse Manufacturing Industries
- Inviting successful entrepreneurs for specialized panels and lectures in IEEE Iran Section annual meetings and sponsored conferences.
- Supporting the booths of the IEEE Iran Section in conferences and exhibitions
- Financial support of industrial companies for IEEE Iran Section sponsored conferences
- Holding the Synergy of Industry and University virtual panel, The 7th Iranian International Conference on Engineering Education, Amirkabir University of Technology

### Activities done by IEEE Iran Section IRC since the last report

- Committee report in the Q1 AFI meeting 2022
- Sending committee report to AFI
- Liaise with other committees and affiliated groups to increase interactions
- Holding international communication meetings in the field of industry in Region 8
- Encourage and promote industrial people and active organizations to cooperate voluntarily with the IEEE Iran Section
- Committee report in the Q4 AFI meeting (2021)
- Digital System Roadmap in Electrical Engineering and Predicting Its Future Role In Domestic And Foreign Industries Webinar

### Activities since the last report

**IEEE Iran Section** has done the following main activities:

- Development of activities of YPs, WiE, and the other Affinity Groups
- Participate in the development of national standards
- Communication of the student sector of the Industrial Relations Committee with the R8 committees such as AFI
- Receive performance reports of committees
- Holding the 12<sup>th</sup> IEEE Iran Section Awards Ceremony
- Holding the 20<sup>th</sup> Annual Meeting with the Executive Committee of IEEE Iran Section and Student Branches' Counselors
- Funding awards
- Compilation of regulations for holding webinars and workshops



- Review conferences regulations
- Planning for the annual ceremony
- Approve and support the Big Data Challenge Contest
- Support for conferences and workshops
- Financial support for the membership of the students

### **Planned** activities

Our future planned activities are as follows:

- Promotion of activities in international cooperation (participation in R8 committees)
- Invite prominent international researchers to introduce their program and activities in person or online
- Holding regional and international events in Iran
- Efforts to develop and promote science and educational centers in the country
- Promote and develop industry relations to increase the growth of technology at the national level
- Cooperation with scientific research institutions and scientific associations
- Develop and promote the level of student activities
- Increasing the number of student branches in the country to expand the student network
- Introducing and promoting national awards in the field of education, research, student branches, and volunteer activities
- Increase IEEE membership
- Preparation of Iran Section strategic plan, action plan, and roadmap
- Development of Technical Chapters' activities to expand the network of faculty and student members in the country

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

As we mentioned in our previous reports, we are facing the following issues:

- Our members especially students cannot effort it which causes a decrease in membership statistics. R8 can help us to convince headquarters to set the membership fee based on our local currency.
- Although most programs like Member-Get-a-Member (MGM), Future 50, etc. are not available for our members so they cannot take benefit from such a program which causes a loss of motivation in the members. We believe that if some programs become available for our members it will motivate our students and members to interact more with IEEE and its benefits

### **Executive Team**

Full Name	Affiliation	Email Address	
Mojgan Azizi	ICT Research Institute	m_azizi@itrc.ac.ir	
Mohammad Ghaderzadeh	K. N. Toosi University of Technology	Ghaderzadeh@ieee.org	
Abolfazl Qiyasi	Shamsipour Technical and Vocational College	a.qiyasimoghadam@gmail.com	
Shiva Asfari	Amirkabir University of Technology	asfari.shiva@gmail.com	
Bashir Felegari	Tarbiat Modares University	Bashir.felegari@ieee.org	
Danesh Amani	Tarbiat Modares University	Amani.danesh@ieee.org	
Elham Khazaei	University of Tehran	elkh188@gmail.com	
Seyed Mustafa Afzouni	Yazd University	smafzouni@gmail.com	
Mohammad Hasan Azad	K. N. Toosi University of Technology	mhazad1999@gmail.com	
Amir Hossein Bagheri	K. N. Toosi University of Technology	amirhb.bagheri@gmail.com	
Mahdi Abbasi	Islamic Azad University, Science and Research Branch, Tehran	mahdiabbasi1100@gmail.com	
Mohsen Boroughani	K. N. Toosi University of Technology	mohsenboroughani@yahoo.com	
Ehsan Soleimani	K. N. Toosi University of Technology	ehsan.soleimani22277@gmail.com	
Pouya Ahadi	Iran University of Science and Technology	pouya.ahadi@gmail.com	
Spideh Ebrahimian	Hamedan University of Technology Student Branch	s.ebrahimian1@gmail.com	
Seyed Amin Atabak	Shahrekord Technical and Vocational University	aminatabak@gmail.com	

### The 12<sup>th</sup> IEEE Iran Section Awards Ceremony

The award ceremony was held virtually in the Zoom cloud platform with the presence of Prof. Saifur Rahman, 2022-2023 IEEE Director-Elect, electrical and electronics prestigious professors from all over Iran, industry entrepreneurs, deans, counselors, and student branches. The ceremony had 600 registrants and 350 unique participants in the Zoom session in addition to more than 100 live Instagram users on the IEEE Iran section Instagram page.

In the beginning, the host welcomed all prestigious guests around the world and started the session officially. IEEE Iran section 2019-2020 board of directors was introduced to the audience by a video clip.

Then **Prof. Vahid Ahmadi** IEEE Iran section chair appreciated Dr. Yazdanian, the ICT Research Institute chair, for all their support and collaborations with IEEE Iran Section. Plaque of appreciation handed over from IEEE Iran Section to Dr. Yazdanian.

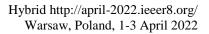
Prof. Ahmadi introduced **Prof. Saifur Rahman**, 2022-2023 IEEE Director-Elect by mentioning his academic career, and invited him to distribute his talk.

**Prof. Rahman** mentioned the great potential of the IEEE Iran section and its active members whose remarkable work is entirely voluntary for other members' growth. He is also talked about plans for IEEE members and the rule of IEEE in past, present, and future of human life.

It was time to introduce the IEEE Iran section awards and a video clip to give specific details about each one was played. Then, IEEE Iran section Awards and Recognition Committee Chair, **Prof. Jawad Faiz**, started to give information about nominees of the 2021 awards.

### List of awards, givers, and recipients of them are:

- Lifetime Teaching Award: The late Prof. Shahrokh Farhangi from the University of Tehran, given by Prof. Jawad Faiz
- Lifetime Research Award: Prof. Hossein Hosseinian from the Amirkabir University of Technology, given by Prof. Ahmadreza Sharafat.
- **Prof. Hakkak Award:** Prof. Khashayar Mehrani from the Sharif University of Technology, given by Prof. Hakkak's family.
- **Prof. Jabehdar Award:** Prof. Zainalabedin Navabi Shirazi from the University of Tehran, given by Prof. Parviz Jabehdar.
- **Prof. Caro Lucas Award:** Prof. Mohammad Reza Akbarzadeh Totonchi from the University of Mashhad, given by Prof. Reza Faraji Dana.
- Prof. Fakhraei Award: Prof. Vahid Ghafarinia from the University of Mashhad, given by Dr. Hadi Moradi.
- Industry Veteran Engineer Award: Eng. Hamidreza Keshavarz from Crouse Industries, given by Eng. Hossein Riazi.
- **Top Entrepreneurs Award:** Eng. Abdolreza Yaghoubzadeh from Pooyandegan Rah Saadat Co., given by Prof. Hamid Soltanian Zadeh.
- **Outstanding Student Branch Counselor Award:** Dr. Seyed Amin Atabak from Shahr-e Kord Technical and Vocational College, given by Prof. Hossein Askarian Abyaneh.
- Women in Engineering Award: Dr. Leyla Mohammadi from Iran Telecommunication Research Center, given by Dr. Zohreh Azimifar
- Young Researcher Award: jointly Dr. Mohsen Hamzeh from the University of Tehran and Dr. Amin Aminzadeh Gohari from Khatam University, given by Prof. Mahmud Fotuhi Fiuzabad
- Best Ph.D. Thesis Award: Dr. Mahtab Khalilifar from Shahid Chamran University, given by Prof. Nosrat Granpayeh.
- **Best M.Sc. Thesis Award:** Jointly Engineer Mohammad Raispour from the Amirkabir University of Technology, Engineer Hamed Lastjerdi from the Sharif University of Technology, given by Dr. Mohammad Reza Yousefi.
- **Best B.Sc. Thesis Award:** Jointly Eng. Abolfazl Qiyasi Moghadam from Shamsipour Technical And Vocational College and Eng. Ali Ramezani from the Amirkabir University of Technology, given by Dr. Maryam Tayefeh Mahmoudi.
- **Outstanding B.Sc. Thesis Award:** Jointly Engineer Danial Farajzadeh from Buein Zahra Technical University and Eng. Fatemeh Esmaili from the Sahand University of Technology, given by Dr. Maryam Tayefeh Mahmoudi.
- Best Student Branch Award: Tarbiat Modares University, Counselor: Dr. Orouji and Chair: Bashir Falegari, given by Dr. Amir Abolfazl Suratgar.
- **Outstanding Student Branch Award:** Jointly, Shamsipour Technical And Vocational College Student Branch Counselor: Dr. Rezvanian, Chair: Eng. Abolfazl Qiyasi Moghadam, and Shahrekord Technical and Vocational





University Student Branch, Counselor: Dr. Seyed Amin Atabak, Chair: Reza Goyandeh Najafabadi, given by Dr. Amir Abolfazl Suratgar.

The final words were from Eng. Mojgan Azizi, the IEEE Iran Section Web Development committee chair and the conductor of the 12<sup>th</sup> IEEE Iran Section Awards Ceremony Executive Team. She admired the relentless and unparalleled efforts of team members and noted there was not such a fabulous event without them. At last, A memorable group photo was taken with all the prestigious guests.



Pictures



(a)









### The Agenda of IEEE Iran Section 20th Students &

12th Awards Annual Meetings

Thursday Dec. 9, 2021

Meeting	Program	Time	Place		
20 <sup>th</sup> Students Annual Meeting	IEEE Iran Section Chair's Welcome (Prof. Ahmadi)	9-9:10			
	Industrial Relations Chair's Speech (Eng. Riazi)	9:10-9:20	Virtual		
	IEEE MGA Student Activities Committee Member's Speech (Dr. Babaee)	9:20-9:35			
	Students Activities Chair's Speech (Dr. Suratgar)	9:35-9:45			
	Students & Counselors View Exchange with the Executive Committee and the Board of Directors	9:45-10:30			
	Students Contest (Dr. Fereidunian)	10:30-12			
Break					
12 <sup>th</sup> Awards Annual Meeting	Opening Session	14-14:30	. Virtual		
	Moderator's Welcome (Eng. Ghaderzadeh)				
	IEEE Iran Section Chair's Welcome (Prof. Ahmadi)				
	2022 IEEE President –Elect's Speech (Prof. Saifur Rahman)	14:31-14:46			
	Awards & Recognition Chair's Speech (Prof. Feiz)	14:47- 15:03			
	Presenting Awards	15:04-16:34			
	Group Photo	16:35			





(d)





(e)



(f)





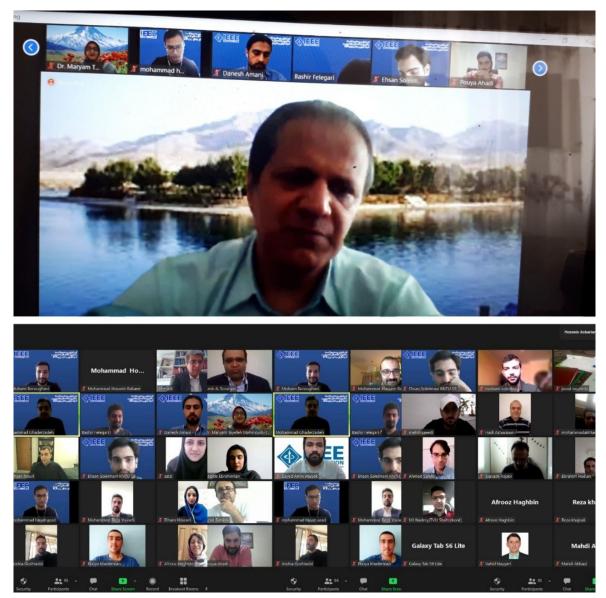
(g)





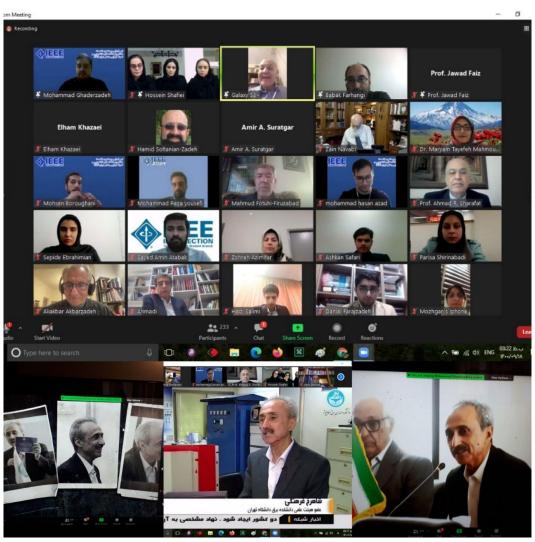
(h)





(i)





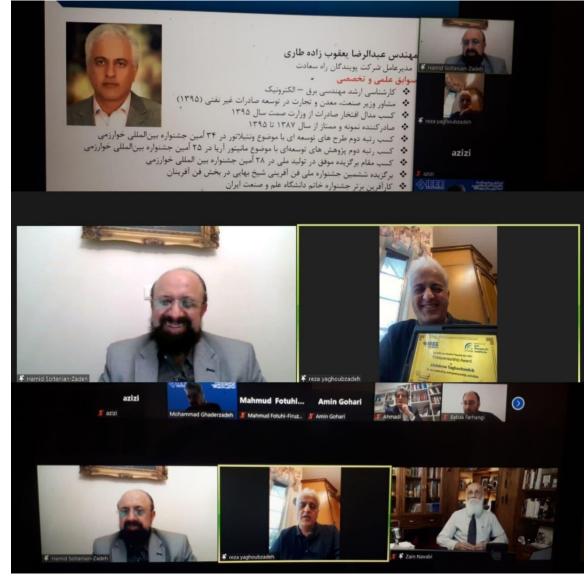
(m)





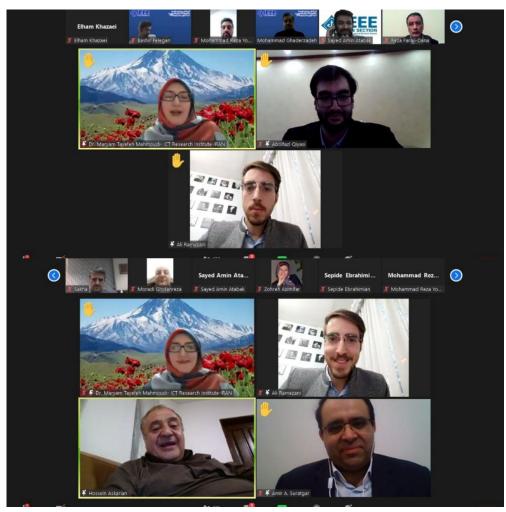
(n)





(0)



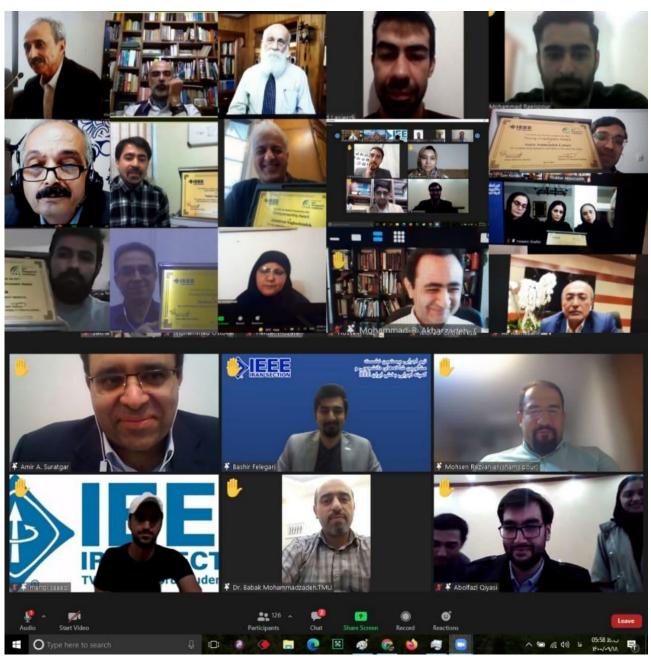


(p)



(q)





(r)

Picture 1. The 12th IEEE Iran Section Awards Ceremony





Picture 2. Key Concepts in Blockchain Technology Workshop





Picture 3. Hyperledger Fabric Technology Workshop





Picture 4. Python Workshop



# RESEARCH



Associate Professor Electronic and Computer Eng. Department University of Tehran

# Key questions which will be addressed in this workshop:

- 1- What are the main parts of a paper?
- 2- What are the necessary elements of an abstract?
- 3- How to introduce your research in the introduction?
- 4- How to organize the result part?
- 5- What to explain in the conclusion, to add value to the research?
- The last, but not the least:
- 6- How to generate an attractive and informative TITLE.

Picture 5. How to Write a Research Paper Webinar

The 118<sup>th</sup> IEEE Region 8 Committee Meeting





(a)





(b)





Picture 6. Round Table on Sustainable Electricity Supply, peak load 1401 and after (Virtually)





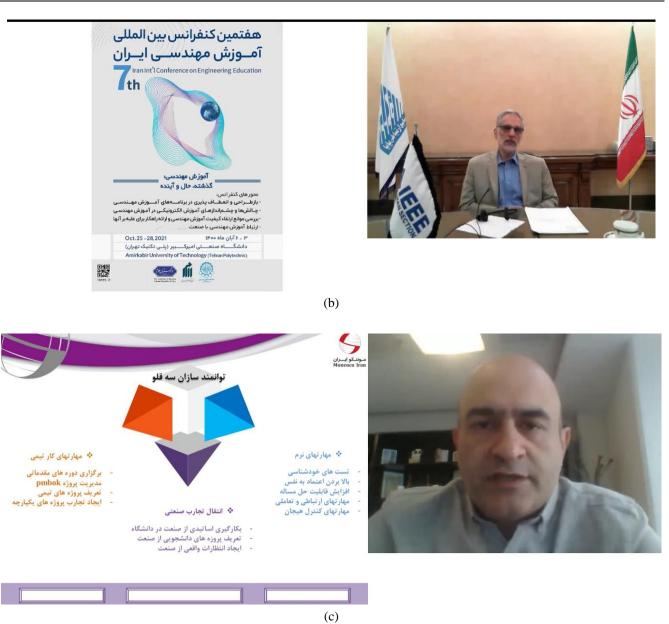
Picture 7. Digital System Roadmap in Electrical Engineering and Predicting Its Future Role In Domestic And Foreign Industries Webinar





(a)





Picture 7. Holding the Synergy of Industry and University virtual panel, The 7th Iranian International Conference on Engineering Education, Amirkabir University of Technology





Picture 8. Entrepreneurship Roundtable: Intimate meeting with successful women entrepreneurs (virtually)





(a)



عنوان چکیده : مهندسی پزشکی: هم افزایی دانش مهندسی و علوم زیست-پزشکی بررسی اجعالی برخی از مطرح ترین مسائل مهندسی زیست-پزشکی (Biomedical Engineering) در حیطه زیست-الکترونیک (Bioelectric) و مباحث مطرح در مدلسازی محاسباتی پدیدهای فیزیولوژیکی





(b)



### چهارشنبه ۶ مرداد ماه <mark>۱۴۰۰ – ساعت ۱۶ الی ۱۸</mark>



دبیر جلسه: خانم مهندس عاطفه ترکمن پژوهشگر امنیت مشاور امور بانوان و خانواده پژوهشگاه ارتباطات و فناوری اطلاعات با حضور سختران؛ خانم دکتر آزاده محیی: عضو هیات علمی پژوشگاه علوم و فناوری اطلاعات ایران ( ایرانداک) دکتری مهدسی طراحی سیستم ها دانشگاه واترلو. کانادا

از اختراع اولین موس، به عنوان ابزار اصلی تعامل انسان و کامپیوتر ناکنون بیش از ۶ دهه میگذرد. از آن زمان، تعامل انســــان با کامپیوتر و ریاتها مســـــیرهای مختلفی را طی کرده است. یکی از این مســـیرها، منجر به پیدایش ریاتهای اجتماعی شده است که تعامل انســـان با ریات را وارد عوصه جدیدی کرده است. ریاتهای اجتماعی از چه نظر با ســایر ریاتها متفاوت هست. تند؟ تعامل انســان و کامپیوتر چگونه منجر به پیدایش ریاتهای اجتماعی شده است؟ و آینده توسعه ریاتهای اجتماعی چیست؟





Picture 9. Leading Women in Engineering Webinar





Picture 10. Achieving the 29<sup>th</sup> Place in the World in IEEEXtreme Competition by Khajeh Nasir Toosi University of Technology (KNTU) Student Branch





Picture 11. Achieving the second position of top Student Branch in the Harekat festival by Shahr-e Kord Technical and Vocational College