

# **Iran Section**

# Vahid Ahmadi

# 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. Also, Chapters elections were performed as the following list:

- Electronics Chapter call for elections
- Power Chapter call for elections
- Computer Society call for elections
- Electromagnetics and Photonics Chapter call for elections
- Control Chapter call for elections

### 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. Currently, we are planning for the 13<sup>th</sup> IEEE Iran Section Awards Ceremony and 21<sup>st</sup> Annual Meeting with the Executive Committee of the IEEE Iran Section and Student Branches' Counselors. We have started a program to develop both Soft and Profesional Skills for students named **IEEE Iran Section Progress Event.** 

### Activities we have done:

- Planning and starting Progress Event
- Git for Daily Works Workshop
- Fundamentals of CI/CD with Git Workshop
- IoT and Connected Cars Webinar
- How to Have a Good Interview Webinar
- The Art of Writing a Research Paper Webinar
- Artificial Intelligence: Applications And Challenges With An Enterprize Approach Webinar
- Training And Simulation Of Graphene-Based Periodic Absorbent Structures In Comsol Engineering Software Workshop
- Project Management Frameworks: Scrum
- Training And Simulation Of Nanoantenna Design In COMSOL Engineering Software Workshop
- The active presence of student committee students in Chapters, fifteen Committees and other parts of Iran Section
- Formation of Student Team Up
- Creation of international activities group
- Checking and helping to organize more than 50 events of student branches (such as Khajeh Nasir University of Technology, Hamadan University, Shahrekord University and so on).
- Cooperation in holding the Data Challenge event
- Revision of regulations for student awards
- Guidelines for supporting student membership to develop membership
- Revision of regulations of the Top Counselor Award
- Active participation in IEEEXtreme programming competitions
- Holding a meeting with the board of directors of all branches and counselors of the branches
- Compilation of regulations for the review of student conferences
- Active participation in District 8 meetings
- Participate and help organize the ITU Smart City and Internet of Things event
- Cooperation with the student scientific organization



- Support and design of the 12th virtual award ceremony of IEEE Iran Section
- Support and design of the 20th Annual Meeting with the Executive Committee of IEEE Iran Section and Student Branches' Counselors
- Support and planning of the final meeting of Round Table for sustainable supply of electric energy, peak load 1401 (2022) and after
- Support and design of Key Concepts in Blockchain Technology webinar
- Support and design introduction of hyper ledger fabric network webinar
- Support and design of the call for elections of the Control Chapter of the Iran Section
- Support and plan for the call for elections of the Electromagnetism and Photonics Chapter of Iran Section
- Support and design of the call for elections of the Computer Society of Iran Section
- Support and design of the call for the election of the Power Electricity Chapter of Iran Section
- Support and design how to write a research paper webinar
- Support and design of How To Become a Senior Member of IEEE webinar
- Support and design for the development of solutions based on the Internet of Things in smart islands webinar
- Support and design the Future of the Internet of Things webinar
- Support and design of introducing IEEE and the Iran section webinar of the membership development committee
- Support and design How to Become a Senior Member webinar of the IEEE Promotion Committee

### **Affinity Groups**

# Young Professional Committee

### Mission

- Inspiring and equipping youth to be proactive and responsible, become more successful professionals, stronger leaders, and more conscientious citizens,
- Provide professional development opportunities for Young Professionals,
- Create the building blocks for lifelong and diverse professional networks: while school ties end at graduation, support from IEEE lasts through your entire career.

### Vision

- Facilitate the successful transition of IEEE student members through young professionals to senior members, as future leaders of the techno-economic ecosystem.
- Planned Activities
- Support student members by bridging the transition from young professional to senior membership.
- Provide students and young professionals with career services/advice via talks/seminars/webinars and job fairs/demonstrations.
- Provide students and young professionals with soft skills education via talks/seminars/webinars.
- Provide students and young professionals with technical/professional training via talks/seminars/webinars.
- Enable better networking and engagement between senior and younger members.
- Create a society-wide mentoring community based on volunteering.

## Activities done by YP since the last report

- Design and development of Upside-Down World Contest for the Iran Section Annual Meeting in Nov. 2022
- Planning of a Webinar on "Soft Skills and Its Importance in An Engineers Professional Development



### Awards and Recognition Committee

IEEE Iran Section Awards Committee is one of the 17 committees of the Iran Section, which is responsible for managing the awards presented by the IEEE Iran Section. Also, the selection of the candidates for the awards of the IEEE Iran section is done by this committee, and the regulations of the awards are compiled and revised by the awards committee.

This section includes examples of awards presented by the IEEE Iran Section to recognize IEEE members, non-members, firms, individual IEEE members, etc.

### Lifetime Teaching Award and Lifetime Research Award

The IEEE Iran section "Research Award" & "Educational and Teaching Award" is presented to Individuals to recognize their outstanding contributions to the field of Electrical, Electronics, and Computer engineering. The main criteria and basis of judgment are:

- Seminal education of contribution,
- Outstanding research achievements
- The practical impact on technological development,
- Breadth and depth of theoretical,
- Industrial and technological contributions.

#### • Prof. Hakkak Award

Innovative participation of the late Professor Mohammad Hakkak in improving the quality of telecommunication engineering research in Iranian universities and research centers, in the field of microwave antennas, wave propagation, microwave circuits, mobile telecommunications, satellite communications, and space technology, Prompted IEEE Iran Section to approve an award entitled the Research Award of Professor Mohammad Hakkak. This award is given to those researchers in the country who have worked extensively in scientific research in the fields of microwave antennas, wave propagation, microwave circuits, mobile communications, satellite communications and space technology.

#### • Prof. Jabehdar Award

The enduring role of Professor Parviz Jabehdar Maralani in stabilizing and improving the quality of electrical engineering education in the country's universities led the IEEE Iran Section to approve an award called the Educational Award of Professor Parviz Jabehdar Maralani. This award is given to those faculty members of the country's universities who like him, have considered the sustainable development of electrical engineering through extensive scientific efforts over the years.

#### • Prof. Fakhraei Award

The innovative participation of the late Professor Seyed Mehdi Fakhraei in improving the quality of digital engineering education and research in Iranian universities and research centers, in the field of microelectronics, digital systems, integrated circuits, and the realization of the telecommunication systems hardware, led to the IEEE Iran Section to award to approve an award called the Research Award of Professor Seyed Mehdi Fakhraei .This award is given to those researchers in the country who have worked with extensive scientific efforts in the fields of microelectronics, digital systems, integrated circuits, and realization of the telecommunication systems hardware.

#### • Prof. Anwari Award (Computer Society)

In the year 2021, a topic titled "Professor Morteza Anwari's research-industrial award in the field of sustainable development of computer science and information technology" was presented as a special award for the Iran Section Computer Society approved by the IEEE Iran Section. The purpose of this award is to appreciate the efforts and influencers in the sustainable development of computer science and information technology, to promote and expand scientific, research and industrial in the field of computer science and information technology, Also, to motivate and provide a way by introducing outstanding efforts and valuable experiences in the field of computer science and information technology.

#### • Prof. Caro Lucas Award

The innovative participation of late Professor Caro Lucas in improving the quality of artificial intelligence and robotics education and research in Iranian universities and research centers, in the field of control and intelligent systems, led IEEE



Iran Section to approve an award entitled the Caro Lucas Research Award. This award is given to those researchers in the country who have worked in such research fields with extensive scientific efforts. Based on the evaluation and recognition of the jury, this award is given annually to a researcher in the field of artificial intelligence and robotics with the most outstanding performance.

### Industry Awards

### • Industry Veteran Engineer Award

Veteran industrial engineer is one of the most important assets of the country that can play a role in line with the goals of the country's development programs by relying on the huge capital of specialized manpower. This facilitates the transition from a resource-based economy to a knowledge-based and resilient economy. In this way, his/her valuable experiences will be provided to the young generation of the country. To this end, every year, the IEEE Iran Section Industrial Relations Committee awards the Veteran Engineer of the Year in the field of electrical and computer engineering in recognition of valuable and effective efforts.

### • Top Entrepreneurs Award

"Entrepreneurship" is a process through which the entrepreneur, while identifying opportunities through innovation and risk acceptance, creates new value in the economic or social spheres and plays an important role in the growth and development of the country due to the changes and transformations that he/she creates in conventional practices. In fact, entrepreneurship is one of the most important strategies that can help the country's development goals in line with the policies of the country's development programs, relying on the huge capital of specialized manpower and the transition from a resource-based economy to a knowledge-based economy. To this end, every year, the IEEE Iran Section Industrial Relations Committee awards the Best Entrepreneur Award in the field of electrical and computer engineering industry in recognition of the valuable and effective efforts of the entrepreneur.

### • Young Investigator Award

The IEEE Iran section Young Investigator Award is given to honor young Iranian scientists under the age of 40, who have made significant contributions (Research and Educational) to the field of Electrical, Electronics, and Computer engineering in Iran. This award is given annually and considers the activities of the nominee during the past 5 years before the award nomination.

#### Women in Engineering Award

In order to honor prominent women in universities, research centers, the field of industry, and entrepreneurship, eligible individuals will be nominated by prominent professors or specialists in these fields in accordance with the conditions for receiving the annual Women in Engineering Award.

#### **Student Activities Committee Awards**

In order to encourage undergraduate, postgraduate, and doctoral graduates, counselors, and student branches, and to honor their efforts in promoting and excelling the scientific position of the country, the IEEE Iran Section annually awards prizes to these groups as the following:

Outstanding Student Branch Counselor Best Ph.D. Thesis Award Outstanding Ph.D. Thesis Best M.Sc. Thesis Award Outstanding M.Sc. Thesis Best B.Sc. Thesis Award Outstanding B.Sc. Thesis Best Student Branch Award Student Branch Excellence Award



WiE

# Mission & Vision

- Expanding the WIE network by collaborating with similar scientific and industrial groups and associations such as the 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 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. The 118th IEEE Region 8 Hybrid http://april-2022.ieeer8.org/ Committee Meeting Warsaw, Poland, 1-3 April 20224
- 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

- Holding regular meetings of the Women in Engineering Committee
- Round table meeting with entrepreneurs
- Launching podcasts of leading women
- Webinar about data science
- Fake news detection webinar
- Familiarization with Fazoor Webinar
- TBD Webinars
- Machine vision workshop
- Deep learning workshop

### **Standard Committee**

# The two-year plan of the Standards Committee is as follows:

- Identifying and promoting and training at least three IEEE standard titles related to the computer sector in Iranian industries
- Identifying and promoting and training at least three IEEE standard titles related to the power sector in Iran's industries
- Identification and promotion and training of at least three IEEE standard titles related to the control sector in Iranian industries



- Identifying and promoting and training at least three IEEE standard titles related to the electronics sector in Iranian industries
- Identification and promotion and training of at least three IEEE standard titles related to telecommunications and information theory in Iranian industries
- Identification and promotion and training of at least three IEEE standard titles related to photonics and electromagnetics in Iranian industries

## Activities done by Standard Committee since the last report

- Identifying and introducing IEEE standards with high priority related to the power sector required in industries
- Identification and introduction of IEEE standards with high priority related to the electronics sector required in industries
- Identification and introduction of high priority IEEE standards related to the control sector required in industries
- Identification and introduction of high priority IEEE standards related to photonics and electromagnetics required in industries
- Identification and introduction of high priority IEEE standards related to photonics and electromagnetics required in industries
- Identifying and introducing IEEE standards that are essential in the field of ICT
- Preparation and arrangement and exchange of a Memorandum of Understanding entitled "Memorandum of Development and Promotion of IEEE Standards related to the field of activities of Tawanir Company" between Tawanir, Niro Research Institute and the IEEE Standards Development Committee
- Receiving Tavanir's requirements for training and developing standards and guidelines related to the electricity industry and planning for their training in line with the exchanged memorandum.
- Preparing and arranging a memorandum of understanding with the first partner company regarding the development and promotion of IEEE standards and other fields in the IEEE Iran Section

# Activities done by Educational Activities Committee (EAC) since the last report

- Training And Simulation Of Graphene-Based Periodic Absorbent Structures In Comsol Engineering Software Workshop
- Training And Simulation Of Nanoantenna Design In COMSOL Engineering Software Workshop
- Using the cooperation of faculty colleagues and experts
- Providing advice to event organizers
- Formation of 5 cryptocurrency groups, soft skills, online training, online laboratory, smart networks
- Holding cryptocurrency webinars at three levels: elementary, intermediate and advanced
- Conducting soft skills courses that can be implemented in absentia
- Conducting ethics training courses in science and technology
- Holidays with Blockchain Workshop
- The Role Of Machine Learning In Modern Satellite Communications Webinar
- Providing instructions and solutions for conducting laboratories online (virtual)
- Holding webinars on smart networks
- Holding artificial intelligence webinars
- Holding entrepreneurship webinars
- Article writing and article mining in databases and citations
- Holding appropriate workshops in cooperation with other reputable scientific associations
- Holding workshops with the cooperation of Women's Affairs of Iran Telecommunication Research Center
- Holding suitable events for high schools, industry and universities with the cooperation of experts and student branches
- Holding training workshops in the post-corona era
- Cooperation with other committees and groups of the department, especially the professional activities committee
- Checking and approving the events proposed to use the logo of the Iran Section
- Evaluation and issuance of digital certificates in the Iran Section



### Activities done by Conferences Committee

- Carrying out basic changes and improvements on the page of the conference committee of the Iran section
- Changing the user interface on the conferences web page in order to improve the clarity of the procedures for registering and inserting conference information
- Implementation of the flowchart of conference registration procedures along with the required links
- Improving and updating the frequently used links page in order to clear ambiguities
- Activating the integrated internal communication system to improve and speed up the conference registration process
- Setting up an electronic payment system
- Update of approved conferences on the site of the IEEE Iran section
- Holding a meeting with the board of directors and representatives of Technical Chapters of Iran Section
- Providing advice to event organizers

Iran Section is the sponsor of many conferences during each year as well as some of the section members help to organize events. the list of conferences is as follows:

- pedstc2021.tabrizu.ac.ir/
- iccia2020.tabrizu.ac.ir
- iranwebconf.ir
- imtec.irib.ir
- http://iot2021.ui.ac.ir/en
- http://www.epdc25.ir
- csicc2021.kntu.ac.ir/en
- icelet2021.mehralborz.ac.ir
- iranwec.com
- iscisc2021.ui.ac.ir
- https://iceeconf.ir/
- ipria2021.ismvipconf.ir
- www.iwcit.com
- iccke2021.um.ac.ir
- sgc2021.tabrizu.ac.ir
- icrom.ir
- aimc52.uk.ac.ir
- icbme.ir
- https://www.ncaea2021.um.ac.ir/Home
- http://www.icspis.ir/page/index/1/en
- http://iktconference.ir/2021
- https://segap.ir/en
- http://iicm2021.modares.ac.ir/index.php?slct\_pg\_id=10&sid=1&slc\_lang=en
- mvip2022.ismvipconf.ir
- http://pedstc2022.sbu.ac.ir/
- icredg2022.sadjad.ac.ir
- wasowc2022.tabrizu.ac.ir
- http://cfis2022.bam.ac.ir/en
- https://iccia2022.ir/Home
- http://iranwebconf.ir/?lang=en
- http://iahpc.ir
- http://ipaps.ir/index\_e.aspx
- http://csi.org.ir/csicc2022/en/index.html
- https://conf.uok.ac.ir/icelet2022/Default.aspx?Lang=En



# 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

### **Industry 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 the 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**

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:

- Iranian Telecommunication Industries Syndicate
- Paya Communication Industries
- Mobinnet Telecommunication Company
- Nian Electronic Co.
- Faraz Co.
- Basir Technology Company
- R & D Development Company (Teta)
- Azmoon Keyfiat Co.
- Karen Antennas Technology Co.
- 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 Smart Data Challenge

### **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 25 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
- The Industrial Relations Committee page is active and 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.

### Activities done (or contributed) by IEEE Iran Section IRC since the last report

- Participation of IRC Chair Eng. Hossein Riazi as the head of the Industrial Relation and Exhibitions committee at the 6<sup>th</sup> International Conference on Millimeter-Wave and Terahertz Technologies (MMWaTT) is organized by K.N. Toosi University of Technology
- Git for Daily Works Workshop
- Fundamentals of CI/CD with Git Workshop
- IoT and Connected Cars Webinar
- How to Have a Good Interview Webinar
- Project Management Frameworks: Scrum
- Committee report in the Q2 AFI meeting 2022
- Sending committee report to AFI
- Liaise with other committees and affiliated groups to increase interactions
- Encourage and promote industrial people and active organizations to cooperate voluntarily with the IEEE Iran Section

#### Activities since the last report

- We have started a project for defining the section Timeline which provides all section events during a year. The project helps all units to plan more precisely as well as members, students and branches and the outside community become aware of all section events.
- Registration of Prof. Anwari Award of Computer Society
- Holding elections for the new term based on the new statute
- Presenting the progress report of the committees, chapters and affinity groups related to the Iran Section
- Preparation of a Manual for holding workshops
- Informing the Iran section awards in social media and following up on sending the documents of the participants
- Developing the section strategic plan
- Compilation of IEEE and Iran Section Introduction booklet
- Evaluation of the candidates for the Iran section awards

# **Planned activities**

Our planned activities are as follows:

- Planning for the 13<sup>th</sup> IEEE Iran Section Awards Ceremony and 21<sup>st</sup> Annual Meeting with the Executive Committee of IEEE Iran Section and Student Branches' Counselors.
- Promotion of activities in international cooperation (participation in R8 committees)
- Inviting 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
- Developing and promoting 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 mentioned in our previous reports, we are facing the following issues:

- Our members especially students cannot afford the membership fee, 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

The 119<sup>th</sup> IEEE Region 8 Committee Meeting http://october-2022.ieeer8.org/ Cairo, Egypt, 15–16 October 2022



Pictures

**مهندس محمد یاسین داوده** گیت برای کارهای روزانه ۲۷ شهریورماه ۱۴۱۱ | حضوری

مهندس علیرضا سلطانی نشان مقدمات CI/CD با گیت ۲۸ شهریورماه ۱۴۰۱ | حضوری



مهندس امید استاد رحیمی خودرو متصل و IOT | چگونه یک مصاحبه خوب داشته باشیم؟ ۲۹ شهریورماه ۱۰۶۱ | ۳۰ شهریورماه ۱۴۰۱ | مجازی

> دکتر احمدعلی آیین هوش مصنوعی: کاربردها و چالشها با رویکرد سازمانی ۱۱ مهرماه ۱۴۰۱ | مجازی



آموزش و شبیه سازی ساختارهای جاذب پریود یک مبتنی بر گرافن در نرم افزار مهندسی کامسول آموزش و شبیه سازی طراحی نانوآنتن ها در نرم افزار مهندسی کامسول ۱۹ مهرماه ۱۹۰۱ | ها آبان ماه ۱۶۰۱ | مجازی

# مهندس ابوالفضل غياثى

هنر نوشتن یک مقاله آکادمیک | چارچوبهای مدیریت پروژه: اسکرام ۲۰ مهرماه ۱۴۰۱ | ۲۶ مهرماه ۱۴۰۱ | مجازی

ثبت نام در: https://www.ieee.org.ir/progress





**Register Here:** 

AVE A DIFFERENT PROGRESS ALONG WITH THE PROFESSIONALS

EE IRAN SECTION PROGRESS















Picture 1: IEEE Iran Section Progress Event and some of its webinars





Picture 2: Upside Down World Podcast Contest (YP)





Picture 3: Open Data Challenge 2022





Picture 4: Holidays with Blockchain Workshop