

IEEE Greece Section

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(on behalf of Antonios Kladas, Chair)

Section Vitality

The 2023-2024 Section's elections for the positions of Chair and Vice-Chair have been scheduled from 27th of March 2023 till 10th of April 2023 and the incoming Vice-Chair is the previous Secretary. The elections for the positions of Secretary and Treasurer have been scheduled from 5th of June 2023 till 18th of June 2023. A meeting with the Section Advisory Committee, a committee consisting of the past IEEE Greece chairs, has been organized on 10th May 2023 in order to facilitate the transition and the fruitful knowledge exchange. ExCom meetings have been scheduled on 22nd June 2023 and on 11th July 2023, devoted to the new Officers' informative actions, conference technical co-sponsorship regulations update and decision to organize four thematic open day workshops scheduled in November 2023, covering all Sections' active research projects funded by European and National grants. This activity is intended to enable recording and archiving of current research trends, discussions and cross-fertilization of innovative ideas as well as motivation for retaining and re-recruiting members with a special focus on senior members and graduate students.

Students

10 Greece Section's student branches have organized numerous activities within 2023, as follows:

- *University of Western Macedonia - Kastoria STB11281*
 - 6-8 January 2023: Invitation to Ragoutsaria, which is an early carnival in Kastoria, where residents dress up in masks with symbolic and scary appearances to ward off evil from the city.
 - 8 March 2023: Online conference entitled "Damsels in Success: Paving the way for future generations," dedicated to International Women's Day.
 - 14 March 2023: "Raspberry Pi Day" conference dedicated to Pi Day.
 - 18 March 2023: Members of the student branch had the opportunity to participate in a workshop on goal-setting, prioritization, and prioritizing the needs and the obligations. The event took place at the University of Western Macedonia library in Kastoria.
 - 23 March 2023: Meet the team event
 - 18 May 2023: Writing Texts Seminar
 - 23 May 2023: A special event about the IEEEExtreme competition
- *Democritus University of Thrace STB98231*
 - 4 April 2023: Future event planning in collaboration with IEEE University of Thessaly Lamia Student Branch
- *International Hellenic University-Serres STB07741*
 - 28 March 2023: Free Workshop on PC Building
 - 21 - 23 April 2023: Participation in Ecescon 14 at Volos Greece
- *Aristotle University of Thessaloniki STB15121*
 - 6 March 2023: Presentation of ECE Sections of AUTH
 - 23 March 2023: IEEE Open Meeting
 - 31 March - 2 April: Educational trip at ΕΛΕΜΚΟ ABEE ath Thivas
 - 3 May 2023: Organizing of event: "Thesis: experience and prospects"
 - July 2023: Trip to Edirne, Turkey, EMBCON & COMSOC Conference
- *University of Thessaly-Lamia STB66241*
 - 4 April 2023: Future event planning in collaboration with IEEE Democritus University of Thrace Student Branch
 - 13 May 2023: Organization of Algoday Webinar #1 with IEEE NTUA SB and IEEE UOP SB
- *University of Thessaly-Volos STB64371*
 - 4 March 2023: Organizing of Git & Github Workshop
 - 21-23 April 2023: Organizing and participating at Ecescon 14 at Volos Greece
 - July 2023: Trip to Edirne, Turkey, EMBCON & COMSOC Conference
- *National Technical University of Athens STB08051*
 - 6 April 2023: Organizing of Workshop Google's Farewell Round
 - 7-8 April 2023: Participation at PAN-ORAMA (www.pan-orama.org)
 - 21-23 April 2023: Participation at Ecescon 14 at Volos Greece
 - 2 May 2023: Organizing of the event (The Energy in our days: Challenges and Prospects in the future)
 - 13 May 2023: Organization of Algoday Webinar #1 with IEEE University of Thessaly-Lamia SB and IEEE UOP SB
 - 24 May 2023: Organization of event (WEB_DEV_101)
- *Piraeus University STB63361*
 - 1 April 2023: Creation of a new Discord Server accessible to everyone
 - 4 April 2023: First meeting regarding the project planning of the team

- 16 May 2023: React and Git Workshop
- *University of Patras STB50001*
 - 18 March 2023: Volunteer Training Session
 - 20-21 March 2023: Cybersecurity and Web Development
 - 13 May 2023: Organization of Algoday Webinar #1 with IEEE University of Thessaly-Lamia SB and IEEE NTUA SB
 - 31 May 2023: Sound Engineering Workshop
- *University of Peloponnese-Patras STB07731*
 - 1 April 2023: Webinar: Unlocking the power of Matlab
 - 7 May 2023: Let's Talk Podcast
 - 11 May 2023: Project Management and Agile Framework in SW Development
 - 13&15 May 2023: Design of systems on FPGA (Webinar and Workshop)
 - 24-26 May 2023: Summer School: Artificial Intelligence and Machine Learning

In addition to the above mentioned 10 student branches the following 6 are active within the Section:

Technical University of Crete, University of Western Macedonia (Kozani), University of West Attica, University of Ioannina, International Hellenic University (Thessaloniki), and Ionian University

Affinity Groups

The IEEE Greece Section has 5 AGs, specifically, the IEEE National Technical University of Athens HKN AG (Mu Gamma), the IEEE InSIGHT, the IEEE Life Members AG, the Young Professionals AG and the Women-in-Engineering AG. The AGs are partnering with the other IEEE Greece Section OUs and co-organize events.

In particular Section's Young Professionals AG organized the following events within 2023:

- Announcement of the 3rd round of the IEEE Greece Mentoring Program, in order to support young engineers at their first professional steps. The Mentors share their experience and provide guidance in achieving specific professional goals, improving skills and enhancing career development (<https://site.ieee.org/greece-yp/mentoring-program/>)
- On 25th January 2023, it co-organized with Women in Engineering AG an online coffee talk entitled "Operation and planning of smart distribution networks – challenges and current trends" with Dr Angelina Syrri via Microsoft Teams.
- On 2nd May 2023, it co-organized with the Power & Energy Society Chapter and NTUA Student Branch (IEEE PES NTUA) a physical event at NTUA entitled "Energy Today: Challenges and Prospects for the Future", the details of which are reported hereafter in Chapter's activities.
- On 29th June 2023, during a timely panel session entitled 'Young Professionals Panel Session on Future Power System Workforce' that took place at the IEEE PES PowerTech Belgrade 2023 conference, the Young Professionals AG Chair, Panos Kotsampopoulos, presented the activities of IEEE Young Professionals along, with insights about relevant initiatives. In this Panel Session, a wide range of skills and knowledge have been discussed, including technical expertise and knowledge (e.g., design/modelling/programming skills) required for most power engineering jobs related to grid connection studies, power system operation, power electronics, system planning, energy sector coupling, electricity markets etc.

Chapters

The IEEE Greece Section has 12 technical chapters (Power and Energy Chapter, Communications Chapter, Control Systems Chapter, Signal Processing Chapter, Computer Chapter, Consumer Electronics Chapter, Engineering in Medicine and Biology Chapter, Computational Intelligence Chapter, Electron Devices/Microwave Theory and Techniques/Antennas and Propagation Joint Chapter, Circuits and Systems/Solid-State Circuits Joint Chapter, Vehicular Technology/Aerospace and Electronic Systems Joint Chapter, Industrial Electronics/Industry Applications/Power Electronics Joint Chapter) and more than 20 technical student chapters.

The following events have been organized within 2023 by respective chapters:

- On 2nd May 2023, the Power & Energy Chapter in co-operation with NTUA Student Branch and the Young Professionals AG organized a physical event at NTUA entitled "Energy Today: Challenges and Prospects for the Future" which was attended by more than 80 participants. During this event, an interactive and inspiring panel discussion with Prof. Nikos Hatziargyriou, Prof. Stavros Papathanassiou and Prof. Anthony Papavasiliou was scheduled involving topics such as energy efficiency, renewable energy penetration, energy storage and e-mobility. Technical presentations on smart grids, e-mobility and green buildings were also delivered by Schneider Electric. Students demonstrated great interest, raised interesting questions and shared their view on these complex challenges that engineers are currently facing worldwide.
- On 28th June 2023, during the "12th International Conference on Modern Circuits and Systems Technologies" held in Athens, Greece, the Electron Devices/Microwave Theory and Techniques/Antennas and Propagation Joint Chapter organized a Special Session on "Complementary aspects of Artificial Intelligence, Unmanned Aerial Vehicles, and Future

Wireless Networks” including works on “Service recommendation for a group of users on the internet of things using the most popular service”, “The human blockage impact on ARIS assisted D2D communication systems”, “DOA estimation for 6G communication systems”, “3D adaptive beam forming approach with a fine-tuned deep neural network”, “A review of deep learning solutions in 360° video streaming”, “FDTD modeling of graphene-based materials and its application in sensing devices”.

- On 26th April 2023 the Vehicular Technology/Aerospace and Electronic Systems Joint Chapter organized a technical meeting on “Sub-Terahertz propagation in 6G wireless communications” during which the potential of sub-THz frequencies in future 6G wireless communications systems has been analysed. The opportunities, the challenges and propagation issues were also discussed. Furthermore, recent state-of-the-art research was highlighted and new research gaps have been investigated that would help elaborate on further studies in sub-THz frequencies in Greece.
- The Circuits and Systems/Solid-State Circuits Joint Chapter has organized two meetings; the first one was held on 15th March 2023 concerning selection and invitation of DLPs as well as search for potential funding sources for the chapter while the second was organized on 4th June 2023 devoted to plan new events and seasonal schools.

Industry

This year an invited visit of students of Aristotle University of Thessaloniki has been organized in the industrial plant of the high-voltage laboratory of ELEMKO SA. Moreover, an industrial project has been initiated in the same University with Raycap SA company concerning surge protection of electric vehicles.

Diversity, Equity and Inclusion

Appropriate link is maintained at the Section’s web-site to to IEEE DEI statement.

Activities since the last report

Important activities, seminars and workshops are promoted through the Section’s web-site.

Planned activities

As already mentioned in the vitality item, the Section has decided to organize four thematic open day workshops scheduled in November 2023, covering all active research projects in the domain of the Section funded by European and National grants. This activity is expected to render great services both in archiving and diffusing information on current research trends and in motivating member recruiting.

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

Financial assistance to distinguished Lecturers’ travel and accommodation expenses for presenting “hot” topics to our members.