

Section Name Bulgaria

Valentina Markova

Section Vitality

The last election procedure finished on 17 July 2023. The elected ExCom (2023-2025) is as follows: prof. Valentina Markova – chair (chair in the previous mandate 2021-2023); prof. Todor Ganchev – vice chair (treasurer in the previous mandate), assoc. prof. Georgi Balabanov - treasurer and Krasimir Tonchev – secretary.

We organized both online and in-person meetings to encourage people from university and industry to become or retain IEEE members. The most significant is the campaign during conferences

This year IEEE Bulgaria Section supports 16 conferences driven to shape innovative and cutting-edge content for all the technical fields of interest within IEEE.

Currently, the IEEE Bulgaria Section consists of 162 members, including 36 student members, 18 senior members.

Students

There are three Student Branches:

STB36211 - University of Ruse,

STB36221 - Technical University of Sofia

STB60691 - Natl Military Academy Vasil Levski.

The number of groups remains unchanged.

The students from the "Angel Kanchev" University of Ruse are the most active student branch during the last six months. They took part in many events such as Student Scientific Session, RU "Angel Kanchev", 11.05.2023; Innovative youth EXPO VII and holydays of science at the University of Ruse. They will participate in the international hackathon NASA Space Apps Challenge in October.





Affinity Groups

The recently established IEEE Bulgaria Section LMAG conducted its first face-to-face meeting in Sofia on 1 June 2023. In addition to this meeting, the members of LMAG took part in the round table on “Increasing the Interest of High School Students to Scientific and Engineering Professions.”

Bulgaria Section LMAG was a co-organizer of this round table as an event within the “Electronics 2023” conference held in Sofia from 1 to 3 June 2023. Together with the conference participants, high school students and teachers, representatives of the Chamber of Commerce, Professional Unions, and businesses participated in the discussions.

The second-round table was within the frame of the conference “COMPSYTECH 2023” held in Rousse from 16 to 17 of June 2023. Together with the conference participants, high school students and teachers participated in the discussions.

In most East European countries, for the past 30+ years, IEEE Bulgaria Section LMAG observed a change in the preferences of young people – from scientific and engineering university programs to programs in law, finance, economics, political sciences, etc. It is mainly caused by the societal transition from an economy of production to an economy of services.

We realize this process went too far and lacks well-qualified engineers and researchers. The science and engineering professions have unique advantages and could be made attractive to young people. To help with this, we should explain the specifics and show the youth the challenges, the benefits, and the full beauty of these professions.

Bulgaria Section LMAG plans to continue this activity and organize a series of round tables on the same topic at other national scientific conferences.

Assoc. prof. Dr. Galia Marinova, chair of IEEE WIE AG took part in the international seminar "Women Talk about Science - Science Talks about Women". She presented lecture “Recent study on Women in STEM in the Framework of Working and Affinity groups in IFAC and IEEE“ with an emphasis on the achievements of women scientists and the transdisciplinary approach to teaching and learning in higher education.

Chapters

List of Chapters and SB Chapters in Bulgaria Section:

CH08200 - Bulgaria Section Jt. Chapter, AP03/ED15/MTT17/EP21

CH08254 - Bulgaria/Rep of Macedonia Jt. Sect. Chapter, SP01

CH08266 - Bulgaria Section, CAS04/SSC37

CH08271 - Bulgaria Section Chapter, C16

CH08292 - Bulgaria Section Joint Chapter, IM09/CS23/SMC28

CH08298 - Bulgaria Section Chapter, COM19

CH08363 - Bulgaria Section Joint Chapter, ED15/SSC37 Varna

CH08438 - Bulgaria Section Chapter, RA24

CH08451 - Bulgaria Section Chapter, CIS11 Industry

All groups hold regular meetings and organize technical, professional, and promotional events.

All chapters have reported on time and received a rebate.

Industry

Prof. Valentina Markova, chair of the IEEE Bulgaria Section participated in several meetings with representatives of the ICT Cluster Varna with the aim of establishing long-term cooperation between the two organizations. The ICT Cluster Varna unites organizations and experts sharing the idea of developing Varna as a natural hub for Information Technologies and Innovations in the Black Sea region.

Activities since the last report

The IEEE Bulgaria Section continues to support the scientists and science organizations in Bulgaria, which organize international conferences.

The 2023 International Conference on Automatics, Robotics & Artificial Intelligence (ICARAI) was a prestigious event was held on June 16 - 19, 2023, at the TU-Sofia Recreation Hotel, located in the city of Sozopol, Bulgaria. The conference provided an excellent platform for researchers, experts, and enthusiasts in the fields of automatics, robotics, and artificial intelligence to exchange knowledge and ideas. Overall, 32 oral presentations and 7 poster presentations illustrating the diversity of research in the field were showcased.

ELECTRONICA 2023 was organized by Union of Electronic, Electrical Engineering and Communications (CEEC), Technical University of Sofia (TU-Sofia), IEEE Bulgaria Section and Faculty of Electronic Engineering and Technologies in cooperation with the Federation of the Scientific and Technical Unions in Bulgaria (FNTS), Bulgarian Academy of Sciences (BAS), University of Applied Sciences Offenburg, Riga Technical University, VDE - Germany and leading international companies in the field of electronics.

The conference is an annual forum for presenting new scientific and industry-ready results in the field of Electronics. It is a platform for round-table discussions about the challenges, problems, and the future of the Electronics industry in Bulgaria. It features discussions between students and business representatives about the Job and carrier opportunities in Electronics. The main topics of the presentations are in the fields of Biomedical Engineering, Circuits and Systems, Education and Learning Technologies, Instrumentation and Measurement, Industrial Electronics, Information and Communication Technologies, Microelectronics and nanoelectronics, Power electronics, Mechatronic systems, Advanced materials, IoT applications, Electromobility.

ELECTRONICA 2023 was held in a hybrid form – based at the House of Science and Technology and in a virtual Webex environment. The conference was also included in the initiative "Days of Science at TU-Sofia 2023". It is part of the Opportunities for cooperation within the framework of the European University of Technology (EUT+) and business.

The international 2023 18th Conference on Electrical Machines, Drives and Power Systems (ELMA) (IEEE Conference Record # 58392) was held on June 29 - July 1, 2023, in Varna, BULGARIA. The conference was organized by Union of Electronics, Electrical Engineering and Telecommunications (CEEC) and IEEE Bulgaria Section and with the support of Technical University of Sofia, Technical University of Varna, Technical University of Gabrovo, University of Ruse, Federation of Scientific and Technical Unions in Bulgaria. The main aim of the conference ELMA 2023 is to give an opportunity to academics, scientists, engineers, PhD students, manufacturers and users to discuss and exchange information about the results of their theoretical and experimental investigation, the utilization of new materials and application of new technologies in the field of electrical machines, drives, power electronics and power systems. The conference is held every two years. Traditionally, the conference is hosted alternatively by the Technical University of Sofia and the Technical University of Varna. This year the host was the Technical University of Varna. A total of 102 scientific reports were presented at the conference, divided into 6 sections.