IEEE KOLKATA SECTION REPORT 2024

IEEE
KOLKATA SECTION

PART A - SECTION SUMMARY

A.1   Executive Summary

- ➢ **IEEE Kolkata Section** organized the **Annual Social meet** of Kolkata Section on 11th February, 2024 at Kamala Gardens, at Bibirhat on Bakrahat Road. 49 IEEE members and their family attended the daylong event starting from 9-30 am onward.

- ➢ IEEE Kolkata Section organized the **2nd CESC Milestone Lecture** on 27th April, 2024 at Dr. H.L. Roy Auditorium of The Institute of Chemical Engineers, Jadavpur University Campus at Jadavpur.The Theme of the lecture was 'Sustainable Solutions in Power Generation – Role of Generating Companies' and the speakers for the sessions were Mr. S. Suresh Kumar, IAS, Chairman DVC Ltd., and Mr. Snehasis Samaddar, Executive Director (Generation), CESC Limited.

- ➢ IEEE Kolkata Section organized **Robotic Competition 2024**
  In response to IEEE R10 call for participation in Robotic Competition 2024, Kolkata Section initiated the process for organizing annual Robotic Competition-2024. The Call for participation was floated in February'24 , interest was shown by 20 teams from 08 different institutes via e-mail, out of which 11 teams filled out the registration form following stipulated guidelines. The screening was carried out in 3 stages, as detailed below:
  Stage - I: Initial Screening during 3rd week of March 2024.
  The teams who filled out the registration form were asked to submit a 05- minute video demo of their project. The concept notes and demo videos were diligently evaluated by independent judges, drawn from academia and industry by the Kolkata Section, to prune down the number of teams to 08.
  Stage - II: Date: 06 April 2024, Mode: Online:
  08 teams from 05 Institutes who were shortlisted from Stage-I, were assessed as per set criteria on virtual platform. 07 teams participated in the online mode and they were judged on the basis of novelty, demonstration of the partial working model, cost of development, impact & significance, challenges faced in implementation, final target and progress and finally scalability. 05 teams were shortlisted for the final round in physical mode.The Judges for the Stage-II assessment were Prof. Atanu Kundu, Prof. Chintan Mandal, Dr. Shaon Mazumder (industry expert from IBM).
  Stage - III: Date: 20 April 2024, Venue: Dr. H. L. Roy Auditorium, Jadavpur University Campus at Jadavpur.
  The final round of competition was inaugurated by the Chairperson of Kolkata Section Prof. Suparna Kar Chowdhury. The Chair in her welcome address stressed on the need for awareness building of the advancement of Science & Technology in areas of AI & Robotics and its contribution in the daily life of human beings particularly in agriculture, bio medical fields to name a few. The Judges for the Stage-III assessment were Prof. Amitava Chatterjee, Prof. Nibaran Das and Dr. Shaon Mazumder (industry expert from IBM).
  Results:
  The final standing is as below:

  a) Team 'Forest Reviver' from the Indian Institute of Technology Guwahati,
  b) Team 'Agrian' from the Institute of Engineering and Management Salt Lake, Kolkata,
  c) Team 'Krishak' from Neotia University, Diamond Harbour, 24-Parganas.
  The top 3 teams were awarded Trophies and Citations. First two teams were nominated for R10 Robotics Competition.

- IEEE Kolkata Section organized **Sir J.C. Bose Milestone Commemorative Lecture** on 2nd August, 2024 in association with The Heritage Institute of Technology, Kolkata at A-Building Seminar Hall of The Heritage Institute of Technology, Kolkata Campus. The Theme of the lecture was '5G to 6G - Challenges and Way forward' and the speaker for the session was Dr. Aloknath De, former Chief Technology Officer, Samsung India.

- **The IEEE Region-10 Conference Quality and Management Workshop** was successfully conducted on 6th September 2024 at the Seminar Room of the Electrical Engineering Department, Jadavpur University. This event was jointly organized by the IEEE Kolkata Section and the Department of Electrical Engineering, Jadavpur University, with support from the IEEE Region-10 Conference Quality and Management Committee. The workshop brought together experts in electrical engineering and conference quality management to explore critical aspects of academic conference organization, quality control, and management strategies. It served as a platform for students, faculty members, and professionals to engage with esteemed professors and gain valuable insights into effective conference management practices. A total of 21 institutions, including IITs, NITs, and Government Engineering Colleges, participated in the program.

- IEEE Kolkata Section organized the **"Student Congress 2024"** in association with Heritage Institute of Technology, Kolkata, on 16th November 2024 at Heritage Institute of Technology. The theme of the program was 'Transitioning from Student to Young Professional" the speakers were Dr. Sudeendra Thirtha Koushik, Founder and Chief Innovator at Innovation by Design and Mr. Subhasankar Debsarma Biswas, Director (Generation) WBSEDCL.

- IEEE Kolkata Section organized the **Sir C.V. Raman Milestone Commemorative Lecture** on 18th November 2024 at Dr. Triguna Sen Auditorium, Jadavpur University Campus at Jadavpur. The Theme of the lecture was 'Unified View of the Basic Forces' and the speaker for the event was Prof. Naresh Dadhich, Emeritus Professor, IUCAA, Pune.

- IEEE Kolkata Section organized its flagship conference **CALCON 2024** on 14th and 15th December 2024 in Jadavpur University Campus at Jadavpur. The inauguration was done in the Dr. H. L. Roy Auditorium of the Institute of Chemical Engineers. Vice Chancellor of Jadavpur University Prof. Bhaskar Gupta and Dean FET of Jadavpur University Prof. Rajib Bandopadhyay were present during the inauguration ceremony. A total of 90 papers were presented during the two-day event. The papers received from students, research scholars, and faculty members of different Institutes in India, were from different domains of Electrical Engineering, Electronics, and Communication Engineering and Computer Science and Engineering. These papers were presented in twelve sessions chaired by eminent professors from institutes in and around Kolkata.
  Three Keynote lecture sessions were organized during the event:
  Prof. Asif Ekbal, Professor, School of Artificial Intelligence and Data Science, IIT Jodhpur delivered a lecture on "Empathetic AI: Teaching Computers Empathy and Politeness"
  Dr. Chandrakanta Kumar, Scientist/Engineer-'G', Project Director Technology & Applications Projects Program Office, U R Rao Satellite Centre, Bangalore delivered a lecture on "Deep Space Communication Systems"
  Prof. Kishore Chatterjee, Professor of Electrical Engg., IIT Bombay, delivered a lecture on "Harvesting of Energy from Solar Photovoltaic System and its Utilization through the Grid". CALCON 2024 was sponsored by Ericsson.

- **Prof. Sivaji Chakravorti**, Professor Department of Electrical Engineering, Jadavpur University has been elected as **Fellow of INSA (FNA).**

- **Prof. Susmita Sur Koley**, former Professor ISI Calcutta and presently Visiting Professor Department of Computer Science, Ashoka University has been elected as **Fellow of INSA (FNA).**

- **Mr. Sanjay Kar Chowdhury,** has been conferred with **MGA Outstanding Achievement Award 2023**, which was awarded in 2024. He is appointed as **MGA IEC Liaison Office** for 2024 and 2025.

- **Prof Sujit Kumar Biswas** has been conferred with the **IEEE India Council Lifetime Achievement Award 2024 as Section Chair.**

- **Ms. Mausiki Kala** has been conferred with **Outstanding Student Volunteer 2024** IEEE India Council.

A.2 List of Section Officer and Executive Committee Members of IEEE Kolkata Section

1	Suparna Kar Chowdhury	Chair
2	Bhaskar Gupta	Chair-Elect
3	Atanu Kundu	Vice-Chairman
4	Tridibesh Nag	Secretary
5	Susanta Ray	Treasurer
6	Iti Saha Misra	Immediate Past Chair

Members		**Elected Officials**	
1	Debangshu Dey	1	Chair AP-MTTS Chapter
2	Ratna Chakrabarty	2	Chair CAS Chapter
3	Sudeshna Choudhury	3	Chair CIS Chapter
4	Mousiki Kar	4	Chair Computer Chapter
5	Arpan Pradhan	5	Chair COMSOC Chapter
6	Sudipta Chattopadhyay	6	Chair DEIS Chapter
7	Sambit Bakshi	7	Chair EDS Chapter
8	John Jose	8	Chair GRSS Chapter
9	Biswajit Chakraborty	9	Chair IAS Chapter
10	Shila Ghosh	10	Chair PES Chapter
11	Ankita Pramanik	11	Chair Photonics Chapter
12	Subhamay Chakraborty	12	Chair YP Affinity Group
13	Koushik Guha	13	Chair WIE Affinity Group
		14	Chair SIGHT Special Interest Group
		15	Chair CSS-IMS Chapter
		16	Chair SSC Chapter
		17	Chair Signal Processing Chapter
		18	Chair Patna Sub-section
		19	Chair Bhubaneswar Sub-section
		20	Chair Guwahati Subsection
		21	Chair Rourkella Subsection
		22	Chair Silchar Subsection

<p style="text-align: center;">**PART B - ORGANIZATIONAL ACTIVITIES**</p>

B.1 Membership Development Programs

Total active IEEE members: 3487
Total IEEE Student members: 1170

Section	Grade	Member Count
Kolkata Section	Associate Member	17
	Fellow	07
	Graduate Student Member	809
	Life Fellow	03
	Life Member	06
	Life Senior	22
	Member	994
	Senior Member	439
	Student Member	1170
	Total	3,467
	Affiliate	20
	Total	3,487

Effort in Membership Development:

- With group of Colleges of Techno India on 5th August 2024 at Netaji Subhas Engg. College a membership drive Workshop was conducted followed by technical talk and Technical Quiz.
- St. Thomas' College of Engineering and Technology - Kolkata, in association with Membership Drive Committee, IEEE Kolkata Section, organized an IEEE Membership Drive Program and Technical Quiz on 27th September 2024.
- An Event on IEEE Membership Drive Program on 9th September 2024 was organized by Dept. of Electronics & Communication Engineering, NIT Silchar in association with Membership Drive Committee IEEE Kolkata Section for UG/PG/PhD students.
- An IEEE membership development drive lecture was given by Dr. Shila Ghosh, Chair, Membership drive committee in 'International Conference on Artificial Intelligence & Sustainable Computing (AISC 2024) was Organized by Department of Information Technology, B. P. Poddar Institute of Management & Technology, Kolkata and A. K. Choudhury School of Information Technology, University of Calcutta on July 11,2024.
- A physical meeting has been held with Chair, IEEE Kolkata section. membership drive committee members and Student branch Counsellor of different Institutes at Seminar Room, EE Dept, Jadavpur University on date 20th September,2024.
- On 17th Dec'24 MDC organised an online meeting with Principals of different Engg. Colleges. Response was very good. Also, few online meetings were organised by MDC with student branch counsellors to convey information and also to motivate them.
- A Membership Drive event was organised by Jadavpur University Student branch on 8th January with support from IEEE Kolkata section.

Evidence of retention of members:
- Each default member is contacted through email / mobile phone and persuaded to renew his / her membership.
- Meeting of Membership Drive Committee members with IEEE, Chair, Kolkata Section On 20th June 2024, a physical meeting was organized with Chair, Kolkata Section and Membership drive Committee members . Members discussed the execution of Plans that were submitted to R10 for membership drive initiatives in different Institutes of different geographical region.

B.2   Chapter Activities

Total Active Chapters: 17

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SUMMARY OF ACTIVITIES OF CHAPTERS

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AP-MTT Jt

- **IEEE AP-S Distinguished Lecturer Talk** at SAMEER Kolkata Centre
  Date: 16th January 2024 (Tuesday)
  Venue: SAMEER Kolkata Centre, Plot - L2, Block – GP, Sector – V, Salt Lake Electronics Complex, Kolkata-700009, (in Physical Mode)
  Speaker: Prof. Ramakrishna Janaswamy, Professor, Electrical & Computer Engineering, University of Massachusetts, Amherst, USA
  Title: Understanding Characteristic Mode Theory for Conducting and Penetrable Bodies Through Simple Examples
  Organized by: IEEE AP/MTT-S Joint Chapter, Kolkata Section in association with IEEE AP-S & MTT-S Student Branch Chapters of Calcutta University and Netaji Subhas Engineering College
- **IEEE Technical Session** at Heritage Institute of Technology Kolkata
  Date: 02 February, 2024
  Venue: Heritage Institute of Technology East Kolkata Township, Kolkata, West Bengal, India
  Speaker: Prof. (Dr.) Somak Bhattacharyya, Associate Professor, Department of Electronics Engineering, Indian Institute of Technology (BHU), Varanasi
  Title: High Frequency Communication: Indian Contributions
  Organized by: IEEE MTT-S HITK Student Branch Chapter and IEEE AP/MTT-S Joint Chapter, Kolkata Section.
- **IEEE Lecture Meeting** at Institute of Radio Physics and Electronics, University of Calcutta
  Date: 28th February 2024 (Wednesday)
  Venue: B. R. Nag Auditorium, 3rd floor, Institute of Radio Physics and Electronics, University of Calcutta (CU), 92, A.P.C. Road, Kolkata-700009 (in Physical Mode)
  Speaker: Dr.Satyaji Chakrabarti, Dr.ParthaMitra, Dr.Partha Roy Chaudhuri, Dr.Avirup Dasgupta and Dr.Sourajeet Roy.
  Title: IEEE Lecture Meeting on the occasion of National Science Day
  Organized by: IEEE Photonic Society (PS), IEEE Electron Devices Society (EDS) and IEEE AP/MTT-S Joint Chapter, Kolkata Section, in association with IEEE PS, EDS & MTT-S Student Branch Chapters (SBCs) of University of Calcutta.
- **Seminar on IEEE** at Narula Institute of Technology Agarpara, West Bengal
  Date: 24 April, 2024
  Venue: Sir J. C. Bose Auditorium, Narula Institute of Technology Agarpara, West Bengal
  Speaker: Prof. Debatosh Guha, Professor, Institute of Radio Physics and Electronics, University of Calcutta, India
  Title: The Professional Home For The Engineering & Technology Community Worldwide Organized by: IEEE AP/MTT-S Joint Chapter, Kolkata Section in association with Department of Electronics and Communication Engineering, Narula Institute of Technology.
- **IEEE Lecture Meeting** at Institute of Radio Physics and Electronics, University of Calcutta
  Date: 20th June 2024 (Thursday)
  Venue: A. N. Daw Conference Room, 1st floor, Institute of Radio Physics and Electronics, University of Calcutta (CU), 92, A.P.C. Road, Kolkata-700009 (in Physical Mode)
  Speaker: Mr. Sourabh Basu, Scientist, Engineer-SF, ISRO, Bangalore
  Title: Antenna Systems for Space Application
  Organized by: IEEE AP and MTT-S Student Branch Chapters (SBCs), University of Calcutta, in association with, IEEE AP/MTT-S Joint Chapter, Kolkata Section (technical sponsor)
- **IEEE Lecture Meeting** at Institute of Radio Physics and Electronics, University of Calcutta
  Date: 2nd July 2024 (Tuesday)

Venue: A. N. Daw Conference Room, 1st floor, Institute of Radio Physics and Electronics, University of Calcutta (CU), 92, A.P.C. Road, Kolkata-700009 (in Physical Mode)
Speaker: Dr. Jawad Y. Siddiqui, Associate Professor, Institute of Radio Physics and Electronics, University of Calcutta
Title: Opportunities for New Members in IEEE AP and MTT Society
Organized by: IEEE AP-S and MTT-S Student Branch Chapters (SBCs) of University of Calcutta, in association with, IEEE AP/MTT-S Joint Chapter, Kolkata Section (technical sponsor)

- Interactive Session followed by **One-day Workshop** at Heritage Institute of Technology, Kolkata
  Date: 29 July 2024 - 31 July 2024
  Venue: Heritage Institute of Technology, Kolkata
  Speaker: Mr. Kunal Ghosh , Director & Co-Founder, VLSI System Design, Bangalore, and Prof. Sayan Chatterjee of Jadavpur University, Professor, Department of Electronics & Telecommunication Engineering
  Title: Interactive session on "Career in Chip Designing - options and opportunities", Workshops on "Design, Test and Debug RISC-V based basic applications on the RISC-V development board", and "Prototype Design & Development of Antenna applicable for 5G communication"
  Organized by: IEEE AP/MTT-S Joint Chapter, Kolkata Section, and IEEE MTT-S HITK Student Branch Chapter.

- **IEEE One-day Workshop** at Institute of Radio Physics and Electronics, University of Calcutta
  Date: 6th September 2024 (Friday)
  Venue: A. K. Chaudhury Auditorium, (CAS Building, 1st Floor), Institute of Radio Physics and Electronics, University of Calcutta (CU), 92, A.P.C. Road, Kolkata-700009 (in Physical Mode)
  Speakers: Speaker 1: Prof. Bhaskar Gupta, Hon'ble Vice Chancellor, Jadavpur University
  Speaker 2: Prof. Debatosh Guha, Dean of the Faculty of Engineering and Technology, University of Calcutta
  Speaker 3: Prof. Partha Pratim Sarkar, Department of Engineering and Technological Studies, University of Kalyani

- **Young Professionals' Colloquium**, 2024 at The Stadel, Kolkata
  Date: 21st September 2024 (Saturday)
  Venue: The Stadel, Salt Lake City, Kolkata- 700106 (in Physical Mode)
  Speaker 1: Dr. Amit Kumar Singh, Indian Institute of Technology, Patna
  Title: Intelligent Surfaces and Antennas for 6G-Opportunitiesand Challenges
  Speaker 2: Mr. Soumik Dey, Indian Institute of Technology, Palakkad
  Title: Current Advances in frequency Selective Surfaces and Metamaterial Structures for Enhanced Wireless Communication and Antenna Performance.
  Speaker 3: Mr. Dhruba Das, SAMEER, Kolkata
  Title: Microwave and mm-wave components and circuit design.
  Organized by: IEEE AP/MTT-S Joint Chapter, Kolkata Section, in association with, IEEE MTT-S and AP-S SBCs, University of Calcutta (CU)

- **IEEE MTT-S Leaders Meet, 2024** at Polo Floatel, Kolkata
  Date: 16th December, 2024 (Monday)
  Venue: Anchorage Hall, Polo Floatel, Jetty 9; 10 Strand Road, B. B. D. Bag, Kolkata- 700001 (in Physical Mode)
  Speakers: Speaker 1: Dr. Maurizio Bozzi, IEEE MTT-S President, 2024
  Speaker 2: Dr. Gautam Chattopadhyay, IEEE MTT-S President Elect, 2024
  Speaker 3: Dr. Valentina Palazzi, Chair, IEEE MTT-S Young Professionals (YP), 2024
  Speaker 4: Dr. Chinmoy Saha, IEEE MTT-S Region-10 Coordinator, Chair, IEEE MTT-S SIGHT
  Speaker 5: Dr. Sulekha Chattopadhyay, Member of Ad hoc Committee of Climate Change and Sustainability, Women in Engineering (WIE)
  Speaker 6: Dr. Erin Killey, Member of IEEE MTT-S Women in Microwave (WIM)
  Organized by: IEEE AP/MTT-S Joint Chapter, Kolkata section in association with IEEE MTT-S and AP-S SBCs, University of Calcutta

COMSOC

- **IEEE COMSOC Distinguished Lecture at RCCIIT, Kolkata**
  Date: 13th March 2024
  Venue: RCCIIT, Kolkata
  Speaker: Dr. Kumar Vijay Mishra

Title: Reconfigurable Intelligent Surfaces for Communications and Radars
IEEE COMSOC Kolkata Chapter in association with IEEE COMSOC Student Branch Chapter, Jadavpur University and RCC Institute of Information Technology (RCCIIT), Kolkata organized the prestigious IEEE COMSOC DISTINGUISHED LECTURE on 13th March 2024.

- **Hack-O-NiT: Students Hackathon**
  Date: 14th – 15th May 2024
  Venue: Narula Institute of Technology, Kolkata
  The first ever overnight Hackathon by Narula Institute of Technology in collaboration with IEEE COMSOC, Kolkata Section was held on 14-15 May 2024 with huge participation from the students and delegates.

- **Six Day online Faculty Development Program on IoT with AI and ML**
  Date: 28th May 2024
  Venue: AOT Campus
  IEEE COMSOC Kolkata Chapter partnered as technical sponsor with Academy of Technology, Hooghly, West Bengal in organizing a Six Day online Faculty Development Program on IoT with AI and ML from 26 February to 03 March 2024 at the AOT campus. Mr. Subhamoy Chakraborti, Dr. Pallab Ganguly, Dr. Prof. Amlan Chakrabarti, and Dr. Sukumar Nandi have represented IEEE COMSOC Kolkata Chapter and also delivered invaluable insights on the theme of the FDP.

- **Keynote speech on 'Adopting AI in industry' on Engineers Day Celebration**
  Date: 15th September 2024
  Venue: Narula Institute of Technology, Kolkata
  IEEE COMSOC Kolkata Chapter associated with ECE Department, Narula Institute of Technology in organizing a webinar on 'Adopting AI in industry' along with IETE Student Forum on 15th September 2024 at 5:00 p.m. in online mode. The Department of Electronics and Communications Engineering hosted an insightful webinar on "Adopting AI in Industry," which saw the participation of 50 students. The session was led by Mr. Subhamoy Chakraborti, Chair, IEEE COMSOC Kolkata Section.

- **TECH TALK 3.0: IEEE COMSOC Kolkata Chapter flagship technical session**
  Date: 21st September 2024
  Mode: Virtual
  Partner: IEEE COMSOC NIT Silchar Student Branch
  The third edition of IEEE COMSOC Kolkata Chapter's flagship technical session TECH TALK 3.0 was held on 21 September 2024 at 10AM through virtual platform. The theme of the talk is 'Generative AI and its impact on the Information & Data Services Industry' which was delivered by eminent speakers from the industry. The event is partnered with IEEE COMSOC NIT Silchar Student Branch.
  The speakers were Mr. Manish Mandal and Mr. Indranil Mukherjee, both from TCS.

- **Faculty and Students Mentoring Workshop by industry expert in collaboration with PTA**
  Date: 25th September 2024
  Venue: RCCIIT, Kolkata
  Partner: RCC Institute of Information Technology, Kolkata
  IEEE COMSOC Kolkata Chapter, supported by Philanthropic Technical Association, has organized a Faculty and Student mentoring workshop on 25 September 2024 at the RCC Institute of Information Technology. CIOs and industry leaders have visited the college campus and shared their views on topics like Security, Infra, Cloud, AI, SAP etc. to make the participants aware about the latest and greatest in tech industry.

- **Signing of MOU between IEEE COMSOC, Kolkata Chapter and WEBEL**
  Date: 28th September 2024
  Time: 10:30 AM
  Venue: WEBEL IT Park, Salt Lake
  MOU signed between MD, WEBEL and Industry Chair, IEEE COMSOC Kolkata Chapter

- **IEEE COMSOC Kolkata Chapter sponsored the Robotics module of Tecnoesis-24**, the annual technical fest of NIT Silchar
  Date: 07th – 10th November 2024
  Venue: Gymkhana Park, NIT Silchar
  IEEE COMSOC Kolkata Chapter and IEEE COMSOC NIT Silchar SBC associated as technical sponsors of the robotics events at Tecnoesis 2024, where participants showcased their engineering and coding skills by designing autonomous robots to battle in an arena, to solve mazes, to score in soccers and many more. The event was organized at NIT Silchar from 07-10 November 2024 where participants from various other institutions also took part in various technical modules.

- **HUMANxAI 2024 Conclave: Redefining HR and IT in the Age of AI**
  Date: 07th – 10th November 2024
  Venue: Peerless Hotel, Kolkata
  Partner: Philanthropic Technical Association (PTA) India
  IEEE COMSOC Kolkata Chapter proudly collaborate with Philanthropic Technical Association (PTA) India in organizing the HUMANxAI 2024 Conclave, a significant event exploring the intersection of artificial intelligence and human resources, was hosted by iLEAD in collaboration with the HR Learning Network-HRLN and the Integrated Institute of Development & Research (IIDR) in Kolkata.

- **NITS HACKS 7.0** - a national level software hackathon at NIT Silchar
  Date: 8th – 10th November 2024
  Venue: NIT Silchar
  NITS HACKS 7.0, the annual flagship hackathon of NIT Silchar, was organized by Google Developer Student Clubs (GDSC) and Coding Club, in association with the Institution Innovation Council (IIC) of NIT Silchar and IEEE COMSOC NIT Silchar SBC. IEEE COMSOC Kolkata Chapter was associated as technical partner to the event. This three-day hackathon took place from November 8th to 10th, 2024 and brought together innovative minds from institutions across India.

- **International Conference on Data Science and Communication (ICTDSC - 2024)**
  Date: 21st – 22nd November 2024
  Venue: Siliguri Institute of Technology, Siliguri
  IEEE COMSOC Kolkata Chapter partnered with Siliguri Institute of Technology, Siliguri in organizing International Conference on Data Science and Communication (ICTDSC - 2024) on 21st and 22nd November, 2024. Prof. Amlan Chakraborty and Prof. Debasish De represented IEEE COMSOC Kolkata Chapter as Keynote speakers in the conference.

- **Cloud DNA Masterclass**
  Date: 29th November 2024
  Venue: RAAS Manch-2 Rajkutir, Kolkata
  IEEE COMSOC Kolkata Chapter joined forces with Cloud4C and PTA for an extraordinary Masterclass on Cloud, Digital and Analytics. Mr. Sourav Das and Dr. Pallab Ganguly kicked off the event with a dynamic session launch, setting the stage for a day of insightful discussions.

- **CXO Convention with IEEE COMSOC & PTA**
  Date: 1st December 2024
  Venue: Hotel Hindustan International
  Partner: Philanthropic Technical Association (PTA) & Learning Network
  IEEE COMSOC Kolkata Chapter proudly organized a CXO Convention in collaboration with Philanthropic Technical Association (PTA) & Learning Network on 1st December 2024 on December at The HHI in The City of Joy Kolkata.

- **ABP INFOCOM 2024**
  Date: 5th to 7th Dec 2024
  Venue: ITC Sonar Bangla, Kolkata
  IEEE COMSOC Kolkata Chapter was the "Associate Partner" in ABP INFOCOM 2024 which was is an annual flagship Business, Technology and Leadership event organized in Kolkata by ABP Group, India's leading media conglomerate in association with leading technology, analysts and strategy groups. The event was held during December 5-7, 2024, at ITC Sonar Calcutta in presence of national and international delegates. The event was aimed to bring together key players from various sectors to discuss and explore the latest trends and opportunities in the Indian market.

- **International Conference on Advanced Innovations in Engineering, Science and Technology (AIEST-2024)**
  Date: 20th December 2024
  Time: 6:00 PM
  Venue: Hyatt Regency, Kolkata
  The International Conference on Advanced Innovations in Engineering, Science and Technology (AIEST-2024) was organized in Magra, West Bengal, INDIA on October 25–26, 2024. IEEE COMSOC Kolkata Chapter associated as technical partner in the conference. This conference is organized by the Abacus Institute of Engineering & Management, Hooghly, India. The conference is offering a huge number of invited researchers from renowned speakers all over the world. The best paper awards will be given to the papers judged to make the most significant contribution to the conference.

- **Vi Business Confluence**
  Date: 20th December 2024

Time: 6:00 PM
Venue: Hyatt Regency, Kolkata
Mr. Subhamoy Chakrabarti, Chairman, IEEE COMSOC Kolkata Chapter, Dr. Pallab Ganguly , Industry Chair representing IEEE COMSOC Kolkata Chapter in the Vi Business Confluence.

- **IEEE COMSOC Panel at IEEE ANTS 2024, IIT Guwahati**
  Date: 16th December 2024
  Venue: IIT GUWAHATI
  IEEE COMSOC Kolkata Chapter actively participated in organizing a panel discussion in IEEE ANTS, 2024 which was held at IIT Guwajati from 14-15 December, 2024 on the topic of 'In the evolution and standardization of secure smart cities, is AI, ML a miracle or a menace" was conducted with Dr. Pallab Ganguly, Industry Chair, Kolkata Chapter as moderator and Gaurav Darbari, Imperial Auto, Col Alok Shankar Pandey, DFCCIL, Prof. Ratnajit Bhattacharya, IIT, Guwahati, Prof. Subhankar Dhar, Professor, San Jose State Univ, USA and Mr. Subhamoy Chakraborti, Chairman, IEEE COMSOC, Kolkata attended the session and shared their views and insights on the subject.

- **Annual Seminar 2024 on Cybersecurity, Artificial Intelligence and Audit**
  Date: 28th December 2024
  Time: 10:30 AM
  Venue: Hotel De Sovrani, Kolkata
  IEEE COMSOC Kolkata Chapter collaborated with ISACA, Kolkata Chapter in organizing the Annual Seminar 2024 on Cybersecurity, Artificial Intelligence and Audit on 28th December 2024 at the Hotel De Sovrani, Kolkata at 10:30 AM.
  Dr. Pallab Ganguly, Industry Chair, IEEE COMSOC Kolkata Chapter was invited as speaker and delivered a very enlightening talk on Challenges of the existing security measures in the smart grid framework.

CAS
  ➢ Summary of Student and Affinity Activities
Quiz competition:
Date: 25th January,2024
Venue: Kolkata Book fair, Karunanoyee
The IEEE IEM Circuits and Systems Student Branch Chapter organized a quiz at the Kolkata Book Fair, covering topics like science, sports, space, and electronics.
Smart Bengal Hackathon,2024:
Date: 16th-17th April,2024
Venue: RCC IIT
The State-level Hackathon, aimed at addressing societal and industrial challenges, featured two events: SBH-Junior on 16th April 2024 and SBH-Senior on 17th April 2024. Inaugurated by Shri Partha Sarathi Dam, Joint Secretary, Dept. of IT & Electronics, Govt. of WB, the event was graced by distinguished guests including Prof. Amlan Chakraborty, Mr. Nirupam Chaudhuri, and Mrs. Preeti Shah, with media partner ABP Digital & FM Radio.
Eleckron under Kritanj,2024:
Date: 14th -15th May,2024
Venue: Narula Institute of Technology.
ELEKTRON 2024, an Electronics Circuit Design competition under Kritanj 2k24, was held at Narula Institute of Technology from May 14-15, 2024, in collaboration with IEEE CASS Kolkata Section. Hosted in rooms 310 and 312, the event featured Pro and Lite categories, culminating in the announcement of winners after intense competition.
Elevate,2024:
Date: 21st to 22nd July,2024
Venue: Institute of Engineering and Manangement
Speakers : Snehasis Banerjee, Prof. Dr. Suparna Kar Chowdhury,
ELEVATE 2024, organized by IEEE IEM CASS Kolkata Section and IEEE IEM SB along with other IEEE IEM Student Branch Chapters, showcased AI and electronics technologies through tech talks and hands-on workshops. The event was inaugurated by Dr. Satyajit Chakrabarty(Director IEM), Snehasis Banerjee(Research Scientist,TCS) and Prof. Dr. Suparna Kar Chowdhury(Chair, IEEE CAS Kolkata Section), who also symbolized growth by planting saplings. The program featured workshops on Arduino, Blockchain, and more, concluding with rewarding the attendees' enthusiasm and contributions.
Symposium:
Date: 22nd August,2024

Venue: Jadavpur University.

Dr. Anand Mukhopadhyay opened the symposium, discussing MATLAB applications in machine learning, data analytics, and control systems. Dr. Monalisa Pal highlighted academic resources from MathWorks, while Mr. Prasun Banerjee detailed the Education Team's activities in HEIs. Dr. Joydeep Basu presented a "Certificate of Appreciation," and Prof. P. Venkateswaran delivered the vote of thanks.

5 day workshop on Raspberry PI , Phase 1:

Date: Sep. 24, 2024 - Oct. 4, 2024

Time: 4:30PM -5:30PM

Venue: Institute of Engineering and Management

The Phase 1 of the Raspberry Pi Workshop, held from September 24 to October 4, 2024, at IEM Gurukul, was conducted by Mr. Rahul Sharma of Distronix for 50+ ECE students. The hands-on sessions covered Raspberry Pi setup, SSH configuration, networking, and sensor connectivity. The workshop concluded with a project on remote image capture and offered completion certificates and internship opportunities.

CIRCUITTATHON WORKSHOP:

Date: Oct. 1, 2024

Time:11 AM to 5 PM

Venue: Gurunanak Institute of Technology

The ECE Department of Guru Nanak Institute of Technology hosted its sixth annual tech fest, Electrofusion-6.0, on 30th September and 1st October 2024, featuring the IEEE CASS-sponsored event "Circuitathon." The two-round competition tested electronics knowledge and circuit design skills, with winners judged by experts based on performance. Organized under the guidance of Dr. Swarup Kumar Mitra, Dr. Avali Banerjee, and Dr. Anurima Majumdar, the event saw enthusiastic participation and coordination.

PCB Designing WORKSHOP:

Date: 14th November, 2024

Time: 4:30 PM to 5:30PM.

Venue: Institute of Engineering and Management

A PCB Designing Workshop, conducted by Saikat Das, Chair of IEEE IEM CASS, introduced 30 participants to PCB fundamentals and hands-on training using Fusion 360 software. The session, with equal participation from IEEE and non-IEEE members, bridged theoretical knowledge and practical application. Positive feedback and an interactive Q&A session concluded the successful event.

Circuithon 2024:

Date: 18th December,2024

Time: 11 AM to 5 PM

Venue: Institute of Engineering and Manangement

The IEEE IEM CASS Student Branch hosted "Circuithon," a competitive event with 22 teams of 4 participants each. The competition featured two rounds: a problem-solving round followed by an exciting circuit design challenge. It tested participants' technical skills, creativity, and teamwork, providing an exhilarating experience.

Poster Presentation Competition, 2024:

Date: 23rd December,2024

Time: 11 AM to 5 PM

Venue: Jadavpur University the Poster Presentation Competition at Jadavpur University's ETCE department saw 31 students from various institutions showcased their research, with individual and group presentations. Coordinated by Dr. Chandrima Mondal and Prof. Mili Sarkar, the event featured an esteemed panel of judges and awarded eight prizes, including cash and certificates. It fostered academic engagement and innovation, with winners like Ms. Pratyusha Chatterjee (IEM) and Ms. Sayani Mondal (JU).

➢ Summary of Social Activities:

Outreach Program, 2024:

Date: 21st of February, 2024

Time: 11 AM to 5 PM

Venue: Institute of Little Stars, Mahanad Nagarpara, Hoogly

IEM IEEE CAS Student Branch Chapter in association with IEM IEEE WIE affinity group, IEM IEEE APS Student Branch Chapter and IEM IEEE MTTS Student Branch Chapter has organized an outreach program on 21st of February, 2024, Institute of Little Stars, Mahanad Nagarpara, Hoogley. Here student Branch chapters has donated two computers to the school children. They have also distributed chocolates and biscuits among them.

Distribution of 100 umbrellas to The Traffic Police of Lake Town Police Station.

Date: 25th April,, 2024

Venue: Lake Town Police station.

IEM IEEE CAS in association with IEEE CAS Kolkata Section has distributed 100 umbrellas to the traffic Police of the Lake Town Police station, Kolkata. It was a great initiative taken by IEM IEEE CAS Student Branch Chapter so that the traffic police could get some relief in this scorching summer heat.

Charity Camp at School.

Date: 13th September, 2024

Venue: Sirakal.

IEM IEEE CAS, with IEM IEEE WIE Affinity Group, distributed sanitary napkins to 100 girls and donated two computers to Sirakal Girl's High School on September 13, 2024. Headmistress Mrs. Paromita Sengupta highlighted the computers' role in developing students' computing skills.

Social outreach program:

Distribution of oranges, cold cream, sanitary napkins, old clothes to the children of a home.

Date: 16th of December, 2024

Venue: Gobindo Kumar Bhaban at Sodepur, Panihati.

The IEEE CASS Kolkata Section organized a social outreach event at Gobindo Kumar Bhaban, Sodepur, distributing essential items like oranges, cold cream, sanitary napkins, and sports equipment. Sponsored by IEEE CASS, the initiative aimed to support underprivileged children and promote community engagement. Despite its success, financial support from IEEE CASS is still pending. The event showcased compassion and responsibility, emphasizing the positive impact of outreach efforts on society.

➢ Summary of Professional Activities:

India Growth Outreach Accelerated Linkage (Goal) Program

Date: 8th of January, 2024

Venue: Institute of Engineering and Manangement, Gurukul Campus.

Speakers : Mr. Preet Yadav

The session began with the felicitation of Mr. Preet Yadav by Prof. Mili Sarkar, IEEE CASS Kolkata Chapter faculty advisor. Mr. Yadav addressed the IEEE CASS society, emphasizing its relevance to the semiconductor and VLSI industry. He highlighted technology's role in growth, shared real-world success stories, and offered practical solutions to industry challenges. Interactive elements ensured an engaging and informative session.

Date: 9th of January, 2024

Venue:GNIT Auditorum.

Speakers :Mr. Preet Yadav, Prof. Kamal Sarkar

The ECE Department of GNIT hosted the "GOAL Program" on January 9, 2024, under IEEE CASS Kolkata and Delhi Chapters. Keynote talks by Mr. Preet Yadav and Prof. Kamal Sarkar highlighted IEEE CASS opportunities, VLSI, and ML integration. Students were inspired by discussions on hardware excellence and funding pathways.

Seminar on Novel Semiconductor memory technologies for AI ML application

Date: 5th February, 2024

Venue: IEM Gurukul Campus

Speakers : Mr. Shankha Mukherjee

IEEE IEM CASS Student Branch Chapter in association with IEEE CAS Kolkata Section , IEI and IEEE WIE affinity group has organized a research talk on 5th February, 2024.In this event Mr. Shankha Mukherjee, PhD Research Scholar (IMEC, Belgium) has delivered a talk on "Novel Semiconductor Memory technologies for AI/ML Applications".Near about 40 students and 10 faculty members were present.

IEEE Foundation Day

Date: 20th of February, 2024

Venue: IEM Gurukul Campus

Speakers : Prof. Sujit Kumar Biswas, Prof. Dr. Tanima Bhowmik.

The IEM IEEE WIE Affinity Group, IEM IEEE CAS Student Branch Chapter, and IEEE Kolkata Section organized a lecture on IEEE Foundation Day. Prof. Sujit Kumar Biswas delivered an engaging talk on electrical engineering and its practical applications. The session saw enthusiastic participation from students and faculty, fostering knowledge exchange and collaboration. The event celebrated IEEE's mission of advancing technology and innovation in academia.

Celebration of Einstein's Birthday.

Date:14th March, 2024

Venue: IEM Gurukul Campus
Topic: Light from semiconductor: yesterday today and tomorrow
Speakers : Prof. Anirban Bhattacharya

The IEEE IEM CAS Student Branch Chapter, with Prof. Anirban Bhattacharya, organized "Light from Semiconductor," exploring the evolution of semiconductor-based lighting. Starting with the discovery of electroluminescence in the early 20th century, advancements like LEDs, laser diodes, and OLEDs have revolutionized applications in lighting, telecommunications, and medical equipment. Emerging technologies such as quantum dots and micro-LEDs promise further innovation in displays and sustainable lighting. The session provided students with valuable insights into the transformative impact of semiconductors.

Faculty Development Program.
Date:24th to 28th June, 2024
Venue: IEM Gurukul Campus
Topic: : AI in VLSI and Embedded System

The ECE Department, IEM Kolkata, in collaboration with IEM HRDC, IEM IQAC, IEEE CASS, and IEEE WIE, organized a Faculty Development Program (FDP) on integrating Artificial Intelligence (AI) with VLSI and Embedded Systems. The FDP included hands-on MATLAB sessions and a meditation session, fostering both technical and personal growth. Around 50 faculty members from IEM-UEM Group and other institutions actively participated, enhancing their knowledge and skills.

Faculty Development Program.
Date:9th to 13th December, 2024
Venue: IEM Gurukul Campus
Topic: QUANTUM ENABLED SCIENCE AND TECHNILOGY
Speakers : Dr. Satyanarayana Bheesette, Dr. Guruprasad Kar, Dr. Debabrato Dutta, Dr. Nayana Das, Dr. Debanjan Konar

The Faculty Development Program (FDP) was held at IEM Kolkata from December 9th to 13th, organized by the ECE Department in collaboration with IEM HRDC, IEM IQAC, IEEE CAS-S Student Branch, IEEE WIE Affinity Group, and IEEE Student Branch. The program focused on the advancements in science and technology enabled by quantum technology. Its main goal was to equip electrical engineering professors with the skills and knowledge to incorporate industry trends and innovative teaching methods into their careers.

Dielectrics & Electrical Insulation Society Chapter (DEIS)

- A talk on, "Introduction to Condition Monitoring in Power Systems," was organized on 16th February 2024 at the Electrical Engineering Department, MCKV Institute of Engineering.
- A talk on, "Health Management of Oil-Filled Transformers – Why and How," was delivered by Prof. Sivaji Chakravorti on 16th February 2024 at the Electrical Engineering Department, MCKV Institute of Engineering.
- A talk on, "Integration of IoT and AI in Power System Monitoring," was organized on 23rd February 2024 at the Electrical Engineering Department, MCKV Institute of Engineering.
- A talk on, "Fault Detection and Diagnosis in Condition Monitoring," was organized on 1st March 2024 at the Electrical Engineering Department, MCKV Institute of Engineering.
- A talk on, "Application of Data Analytics in Asset Management and Condition Monitoring of Power Equipment," was organized on 11th October 2024 at NIT Mizoram.
- A talk titled, "Some Thoughts on Future Research Directions," was held on 22 November 2024 at H. L. Roy Auditorium, Jadavpur University, Kolkata. This event was in the Student and Affinity Group Activities.
- IEEE 7th International Conference on Condition Assessment Techniques in Electrical Systems (IEEE CATCON 2024) was held at Jadavpur University, Kolkata, India, from November 22 to 24, 2024.

EDS

- Department of ECE, Tezpur University organized IEEE EDS "1-D Mini Colloquium on Electronic Devices and Sensors" on March 8, 2024 in collaboration with IEEE EDS Kolkata section, India. Distinguished Lecturers (DLs), Prof. Benjamin Iniguez (Univ. Rovira I Virgili, Spain), Prof. Navakanta Bhat (CeNSE, IISC Bangalore, India), Prof. K.S. Chang-Liao (National Tsing Hua Univ., Taiwan), Prof. Chandan K Sarkar (Jadavpur Univ., India), and Dr.

Ajit Kr Panda (Vice President (RF), VVDN Technologies, India) delivered presentations at the MQ. More than 100 participants from different institutes of the state attended the MQ.

- 2nd Smart Bengal Hackathon [SBH 2024] was organized by RCC Institute of Information Technology with technical co-sponsorship of IEEE EDS Kolkata Chapter along with other technical societies on 16th-17th April 2024. Major financial support was provided by Department of Information Technology and Electronics, Govt. of West Bengal. Around 635 innovative idea submissions were received from different reputed colleges and schools from West Bengal and other outside states. After initial screening 357 teams are accepted for technical review. Out of which 80 teams from SBH-senior and 41 teams from SBH-junior categories are selected for idea presentation in the grand final round.

- The Grand Finale of HackSpire 2024, a national-level hackathon organized by the Future Institute of Technology and Management in technical collaboration with IEEE EDS Kolkata Chapter was held on 12th September 2024 at Institute campus, Sonarpur, Kolkata, West Bengal. Over 350 teams with 2200+ participants took part in that event.

- The 3rd IEEE Electron Device Kolkata Conference [EDKCON 2024] was organized by IEEE EDS Kolkata Chapter on 30th November – 1st December 2024 at Fairfield by Marriott, Kolkata. Renowned educators, industry experts, researchers and students exchanged their ideas through presenting papers, plenary and keynote talks, tutorial sessions, and in the industry-academia conclave. Director of Technical Education, Govt. of West Bengal, Dr. Anindita Ganguly, was the Chief Guest, and Prof. Rajnish Sharma, Vice-Chancellor of Chitkara University, was Guest of Honour. Out of 508 submissions, only 152 papers have been accepted after peer-review, and that makes a mere 29.92% acceptance ratio.

IAS

- IEEE IAS Kolkata Chapter organised a Technical Seminar on "Guided Anti-Drone System Development" on 7th May, 2024 at the Department of Electrical Engineering, St. Thomas' College of Engineering & Technology, Kolkata. The keynote speaker was Mr. Sajal Kanti Ray, Distinguished Scientist and Former Director of Research Centre Imarat (RCI, Hyderabad) and Defence Research and Development Organisation (DRDO).

- A Technical Seminar was organised on "Guided Missile System" at the Department of Electrical Engineering, B.P. Poddar Institute of Management and Technology, Kolkata 28th May, 2024 in collaboration with the Institution's Innovation Council (IIC). The talk was delivered by Mr. Sajal Kanti Ray, Distinguished Scientist and Former Director of Research Centre Imarat (RCI, Hyderabad) and Defence Research and Development Organisation (DRDO).

- The IEEE IAS Kolkata Chapter provided Technical support to the workshop on "Solar Energy: Innovative, Utilization and Applications" organised by the St. Thomas' College of Engineering & Technology, Kolkata. Resource persons from the IEEE IAS Kolkata Chapter provided hands-on training to the student participants and Faculties.

- An Industrial visit to Signotron India Pvt. Ltd. was organised on 21st December 2024 with Faculties and students from Future Institute of Technology (FIT), RCC Institute of Information Technology (RCCIIT), B.P. Poddar Institute of Management and Technology (BPPIMT), and Kalyani Government Engineering College (KGEC).

- The IEEE Kolkata IAS Chapter provided Technical Co-sponsorship to the 3rd IEEE International Conference on Control, Instrumentation, Energy & Communication (CIEC-2024) organized by the Department of Applied Physics, University of Calcutta, from 25th to 27th January, 2024.

- The IEEE Kolkata IAS Chapter technically sponsored the Smart Bengal Hackathon-2024 held in RCC Institute of Information Technology (RCCIIT), Kolkata during 16th – 17th April 2024.

Power & Energy Society (PES)

- **Student Activities**
  - IEEE Power & Energy Society (PES) Kolkata Chapter jointly with Jadavpur University EE Students' Forum organized Eureka! of Convolution 2024, an Annual Techno-Managerial Meet, hosted at Electrical Engineering Department, Jadavpur University from March 15th to 17th, 2024.

- A section of students visited Bakreswar Thermal Power Plant on 10th November 2024, facilitated by IEEE Power & Energy Society (PES) Kolkata Chapter.
- IEEE PES Affinity Groups (WIP, YP, etc.) organize an Essay Competition for Students (WIEECOM 2024). The essay submissions were open from Friday, June 28, 2024, to Thursday, July 25, 2024

- **Industry-academia activities**

  - The IEEE PES Kolkata Chapter had organized a lecture meeting to celebrate IEEE PES Day 2024 on the theme "Empowering Electric Mobility Innovation" on April 23, 2024, at CCL lab, 1st Floor, Electrical Engineering Department of Jadavpur University.

  - To exchange the knowledge among the ER utilities, Eastern Regional Load Despatch Centre (ERLDC) in technical collaboration with IEEE PES Kolkata Chapter organized a two days HRD training program on "Reactive Power Management" on 19th and 20th August 2024 at Hyatt Centric Ballygunge, Kolkata.

- **Technical Activities**
  - IEEE Power & Energy Society (PES) Kolkata Chapter jointly with University of Engineering & Management, Kolkata, organized an One Day Seminar and Exhibition on "Energy and Sustainability: A Social Mission" hosted at Electrical Engineering Department, University of Engineering & Management, Kolkata on March 16th, 2024.
  - IEEE PES Kolkata Chapter and Gargi Memorial Institute of Technology (GMIT), Kolkata has organized the technical fest, "GEMISHA," on March 28, 2024, at Gargi Memorial Institute of Technology (GMIT), Kolkata.
  - The Power & Energy Society Chapter of IEEE Kolkata Section, in collaboration with the Electrical Engineering Department of Jadavpur University, Kolkata, has organized Industry collaborative lecture program on June 13, 2024, at Seminar Hall, Electrical Engineering Department of Jadavpur University.
  - The Power & Energy Society Chapter of IEEE Kolkata Section, in collaboration with the Electrical Engineering Department of Netaji Subhash Engineering College, Kolkata, has organized technical lecture program on "Machine Learning and Its Applications" on June 24, 2024, at R. N. Tagore Hall, Netaji Subhash Engineering College.
  - The Power & Energy Society Chapter of IEEE Kolkata Section, in collaboration with the Electrical Engineering Department of Netaji Subhash Engineering College, Kolkata, has organized Technical lecture program on IPR for Sustainable Development Goals (SDGs) on July 04, 2024 at R. N. Tagore Hall, Netaji Subhash Engineering College.
  - The Power & Energy Society Chapter of IEEE Kolkata Section organized PES Distinguished Lecture (DL) Program on Advanced Prediction Techniques Applied to Smart Grids in online mode on Thursday, July 18, 2024, 3:00 P.M. (IST).
  - IEEE PES Kolkata Chapter and Department of Applied Physics, University of Calcutta organized a technical Symposium on "Challenges and solutions for integrating renewable energy into existing power grids" on 26th October 2024 at Dr. Meghnad Saha Auditorium, Rajabazar Science College Campus, University of Calcutta.
  - IEEE PES Kolkata Chapter and Department of Applied Physics, University of Calcutta organized a technical Lecture on "Challenges of Large-Scale Renewable Energy Integration-Global and Indian Power System Perspective" on 27th October 2024.
  - IEEE PES Kolkata Chapter and Department of Applied Physics, University of Calcutta organized a technical Seminar on "Recent Research Trend and Perspectives of Sustainable Energy Storage Battery for Renewable Energy Generation and Integration in India" on 26th October 2024.
- **Student Activity:**
  AURA 2024, the first-ever technical project competition held at Aliah University, technically sponsored by IEEE PES Kolkata Chapter, was a landmark event designed to foster collaboration and showcase the technical expertise of students and researchers of this university. Date of the event: 7th March 2024.
- **Industry Academia:**

Title of the Program: IEEE PES Kolkata Chapter in association with IET JU On-Campus Chapter conducted a one-day plant visit to the Bakreswar Thermal Power Plant on 10th November 2024.

Photonics

- The IEEE Photonics Society Kolkata Chapter (India) received "Most Innovative Chapter" for 2023 honor for your consistent involvement and dedication to the Society's strategic outreach goals.
- IEEE Photonics Society CUSB Chapter jointly with IEEE Photonics Society Kolkata Chapter arranged an inspirational talk on 4th January 2024 at 2:30 pm in B. R. Nag Auditorium of the Radio Physics and Electronics department titled "Current Research Scopes in Abroad: From the Viewpoint of International Student".
- On the 28th of February 2024, "National Science Day" was commemorated by the collaborative efforts of the IEEE EDS CUSB Chapter, IEEE MTT-S CUSB Chapter, and IEEE Photonics Society CUSB Chapter, in conjunction with the IEEE AP-MTTs Kolkata Chapter and IEEE Photonics Society Kolkata Chapter.
- On May 16, 2024, the "International Day of Light" was celebrated through a collaborative event organized by the IEEE Photonics Society Kolkata Chapter and the IEEE Photonics Society CUSB.
- IEEE Photonics Society CUSB Chapter jointly with IEEE Photonics Society Kolkata Chapter arranged a Distinguished Lecture talk on 4th September 2024 at 2:30 pm.
- IEEE Photonics Society CUSB Chapter jointly with IEEE Photonics Society Kolkata Chapter arranged Hands-on Workshop on Comsol Multiphysics simulation software on 18th September 2024 at 2:30 pm in the DSP lab in the Department Radio Physics and Electronics.
- On September 27th, 2024, the "Career Fair" was organised through a collaborative event organized by the IEEE Photonics Society Kolkata Chapter and the IEEE Photonics Society CUSB jointly with IEEE CUSB and RPE Association.
- On November 18, 2024, St. Thomas' College of Engineering and Technology, Kolkata, hosted a seminar on Photonics Systems, organized by its Research & Development Cell in collaboration with the IEEE Photonics Society (Kolkata Chapter) and IEEE Student Branch, with technical and financial co-sponsorship from the IEEE Photonics Society.
- On December 12, 2024, the IEEE Photonics Society Kolkata Chapter, in collaboration with the Radio Physics and Electronics Association and the IEEE Photonics Society Calcutta University Student Branch Chapter, successfully organized a technical lecture at the A N Daw Meeting Room, Institute of Radio Physics and Electronics, University of Calcutta.
- IEEE Photonics Society Kolkata Chapter and IEEE Photonics Society Calcutta University Student Branch Chapter organized an outreach program to celebrate National Science Day. The event was held on 7th March 2024 at Berubari Tapashili Free High School, Jalpaiguri.

Signal Processing

- Lecture on 'Precision Onboard Signal Processing for Portable High Voltage Metering'.
  Speaker: Prof. Biswendu Chatterjee, Professor, EE Dept., Jadavpur University,
  Participants: 42 (IEEE : 6)
- Lecture on 'Synergism of Machine Learning and Signal Processing tools for condition monitoring applications'
  Speaker: Prof. Debangshu Dey, Professor, EE Dept., Jadavpur University,
  Participants: 30 (IEEE : 5)
- Lecture on 'Modern Necessity: Transitioning from Analog Discrete Components to Onboard Signal Processing for High Voltage Measurement'
  Speaker: Prof. Biswendu Chatterjee, Professor, EE Dept., Jadavpur University,
  Participants: 61 (IEEE : 7)
- IEEE Distinguished Lecture (DL) on 'Affective Computing: The Rise of Emotional Machines'
  Speaker: Prof. Björn W. Schuller, Professor & Head of Chair of Health Informatics, Technical University of Munich (TUM), Munich, Germany,
  Participants: 117 (IEEE: 14)
  Notable Achievements of the Chapter for the Year 2024:
- Recognized with the SPS Chapter of the Year Award for 2024.

- Earned Certification of the SPS Kolkata Chapter, enabling increased benefits for the chapter during the period 2025–2028.

Solid-State Circuits Society (SSCS)

- A Technical Talk was organized on 8th January 2024 by IEEE ED MSIT SBC and IEEE SSCS Kolkata chapter in association with Department of ECE, MSIT, Kolkata.
- SSCS organised Technical talks on 29th February 2024 at the Department of Electronics and Telecommunication Engineering, Jadavpur University.
- IEEE SSCS Kolkata chapter organized a Circuit Design Contest in association with MCKV Institute of Engineering, Howrah, West Bengal on 6th March, 2024 at MCKV Institute of Engineering. Circuit Design Contest was a part of Annual TechFest of the institute.
- IEEE SSCS Kolkata Chapter has successfully organized a Distinguished Lecture Program on 27th April 2024, Saturday.
- IEEE SSCS Kolkata Chapter has successfully organized a Virtual Talk on "Job Opportunities in the Semiconductor Industry" on 18th May 2024, Saturday.
- IEEE SSCS Kolkata Chapter has successfully organized a Distinguished Lecture by Dr. Sudipto Chakraborty on 26th June 2024 at IEM, Kolkata.
- IEEE SSCS, Kolkata Chapter organized a One-Day Workshop on "Circuit Design using LTSPICE" on 31st July 2024 in association with Department of Electronics and Communication Engineering, MCKV Institute of Engineering.
- Technical Talks were organized by IEEE SSCS Kolkata chapter and IEEE ED MSIT SBC in association with Department of ECE, MSIT, Kolkata on 30th August 2024.
- IEEE SSCS Kolkata Chapter organized a Virtual Talk on Revolutionizing Hardware Design with Deep Learning HDL on 14th September 2024.
- IEEE SSCS Kolkata Chapter has organized a Poster Contest for the UG/PG students on 27th October 2024.
- IEEE SSCS Kolkata Chapter technically sponsored few events such as Smart Bengal Hackathon 2024 held in RCC Institute of Information Technology (RCCIIT) during 16th – 17th April 2024 and the Grand Finale of HackSpire 2024, a national-level hackathon organized by the FIEM ACM Student Chapter was held offline on 12th September 2024 at Future Institute of Engineering and Management, Sonarpur, Kolkata, West Bengal.

B.3 Formation of New Student Branch

Newly formed Student Branches (SB) / Student Branch Chapters (SBC) / Student Branch Affinity Groups (SBAG) 2024

1. Calcutta Univ Of-Univ C of Tech Instrumentation and Measurement Society Student Branch Chapter, SBC28561E
2. National Inst of Technology - Nagaland Industry Applications Society Student Branch Chapter, SBC60105883
3. University of Engineering and Management-Kolkata Geoscience and Remote Sensing Society Student Branch Chapter, SBC11417C
4. Narula Institute of Technology Computer Society Student Branch Chapter, SBC14018E
5. Netaji Subhash Engineering College Women in Engineering Student Branch Affinity Group, SBA15115
6. Silicon Institute of Technology-Bhubaneswar Microwave Theory and Technology Society Student Branch Chapter, SBC04531
7. National Inst of Technology - Nagaland to the IEEE Student Branch, STB60105883
8. Indian Institute of Tech-Dhanbad Photonics Society Student Branch Chapter, SBC33291B
9. Dr B C Roy Engineering College - Durgapur Microwave Theory and Technology Society Student Branch Chapter, SBC11473
10. Indian Inst. of Information Tech,Kalyani Computer Society Student Branch Chapter, SBC60214426A
11. Veer Surendra Sai University of Technology Burla Sensors Council Student Branch Chapter, SBC11390C

B.4 Affinity Group and Special Interest Group Activities

Total Affinity Groups: 03
i) Young Professional (YP) Affinity Group
ii) Women in Engineering (WIE) Affinity Group
iii) Life Member (LM) Affinity Group
iv) SIGHT Special Interest Group

Young Professional (YP) Affinity Group

- Technical Lecture Programme was organized on 5th January, 2024 at ADMH, Dept. of CSE, Jadavpur University by Department of Computer Science & Engineering, Jadavpur University in technical association with IEEE Young professionals, Kolkata Section. The title of the talk was "Rethinking Model interpretability in binary medical image classification problems".

- A Faculty Development Program on Cutting Edge: Horizons of Data and Analytics was held during 22nd to 31st January, 2024 at Meghnad Saha Institute of Technology (MSIT), Kolkata by Department of CSE, MSIT Kolkata in technical collaboration with IEEE Young Professionals, Kolkata Section. The topic of FDP was "Cuttting Edge: Horizons of Data and Analytics".

- A Technical Lecture Programme was held on 6th March, 2024 at Seminar Hall-1 Cooch Behar Government Engineering College by Department of Computer Science & Engineering, Cooch Behar government Engineering College and IEEE Young professionals, Kolkata Section. The title of the talk was "Deep Learning Optimizers: Gradient Descent and its Recent Advances".

- The Department of Computer Application of Techno International Newtown and IEEE Young professionals, Kolkata Section jointly organized an Industry Visit cum Excursion at the Times of India Office, Saltlake, Kolkata on 6th April, 2024.

- Department of Computer Application of Techno International Newtown along with IEEE YP organized a Workshop on REACT & Node JS at Techno International New Town, Kolkata on 23rd April, 2024 at Techno International New Town, Kolkata.

- Department of Computer Application of Techno International Newtown along with IEEE YP organized a Workshop on REACT & Node JS at Techno International New Town, Kolkata on 23rd April, 2024.

- Department of Electrical Engineering, Cooch Behar government Engineering College and IEEE Young professionals, Kolkata Section jointly organized a Technical Lecture Programme at Seminar Hall-1 of Cooch Behar Government Engineering College on 30th April, 2024.

- Department of Computer Science & Engineering, Ramkrishna Mahato Government Engineering College, Purulia and IEEE Young professionals, Kolkata Section jointly organized a Technical Lecture Programme and IEEE awareness program at CSE Seminar Hall of RKMGEC College on 7th May, 2024.

- Techno International New Town, Kolkata in technical collaboration with IEEE Young professionals, Kolkata Section jointly organized 2nd International Conference on Data Analytics and Insights (ICDAI-2024) at Techno International New Town, Kolkata on July 25-27, 2024.

- IEEE Young Professionals, Kolkata Section and IEEE Computer Chapter, Kolkata Section jointly organized an International Webinar on LiFi Technology on 7thSeptember, 2024 in Online Mode.

- Institution Innovation Council (IIC) Aliah University and IEEE Young professionals, Kolkata Section jointly organized a One Day Symposium on Research and Innovation on 26th September, 2024 at Aliah University, Kolkata.

Women in Engineering (WIE) Affinity Group

- The 7th International Workshop on Networking Women in Distributed Computing and Networks 2024 was held at January 4, 2024, Chennai, India. The program was partially sponsored by IEEE Women in Engineering (WiE).

- IEEE IEM Women in Engineering (WIE) student affinity group organized a Trivia Quiz event on the 24th of January, 2024 from 4:30 PM to 5:30 PM at the Kolkata International Book Fair.

- The IEM IEEE WIE affinity group, IEM IEEE CAS Student Branch Chapter, IEEE WIE affinity group, IEEE Kolkata Section organized an enriching lecture in commemoration of IEEE Foundation Day on February 20, 2024, IEM Gurukul Campus, Kolkata.

- Celebration IEEE WIE Day 2024 was held on June 24, 2024, IEM Gurukul Campus, Kolkata, India. The theme of the IEEE WIE Day was "Engaging more women in AI and 4IR technologies".

- Another IEEE WIE day Celebration and Distinguished Lecture was held on 08.07.2024 [from 4 pm-6 pm], & 09.07.2024 [from 4 pm-5 pm], Auditorium at Godrej Genesis Building, 10th Floor, IEM, Kolkata, India, under the theme "Engaging More Women in AI and 4IR Technologies."

- A WIE Day Celebration Event was held at Jadavpur University on July 10, 2024, 5 pm. It was held on the theme Addressing environmental concerns in the age of 4th industrial revolution. It featured a plantation drive in the university campus by the WIE members of ETCE Department, assisted by the scholars and students of the department.

- A WIE program was held in International Conference on Artificial Intelligence & Sustainable Computing (AISC 2024), July 11-13, 2024. On July 11, the inaugural session was held at B P Poddar Institute of Management and Technology, the conference was held on July 12-13 at Software Technology Park, STPI Kolkata. An IEEE membership development drive was organised by Dr. Shila Ghosh, Chair, Membership drive committee, and WIE member, IEEE Kolkata section; it was followed by a session by IEEE WIE.

- An IEEE R10 DEI Grant sponsored event on School children for IoT based Accessible and Inclusive Environment creation was held on 22.07.2024 at Sirakole Girls's High School, Sirakole, South 24 Parganas, West Bengal.

- WIE, IEEE Kolkata Section technically sponsored a session in the International Conference on Data Analytics and Insights (ICDAI) 2024 in collaboration with the organizers of this international event on 27th July 2024 at Biswa Bangla Convention Centre.

- IEEE WIE Kolkata had participated in the International Leadership Summit 2024, organized by WIE, IEEE Delhi Section from August 10-11, 2024 at Habitat Centre, New Delhi.

- WIE AG member of IEEE Kolkata Section had the opportunity to participate in the SYWL Congress 2024, which is a R10 activity involving participants from most of the Asian and Australian countries held during August 29-September 1, 2024 at Tokyo, Japan.

- A 5 day Webinar and Hands-on Workshop on "Transforming the Digital Landscape: Confluence of IoT, AI and ML" was held from September 26- October 1, 2024, at Siliguri Govt. Polytechnic College, Siliguri. This program was organized jointly with Siliguri Govt. Polytechnic and WIE IEEE Kolkata Section.

- A R10 WIE IEEE DEI 2024 Webinar was held from October 11-12, 2024 at Jakarta. The R10 IEEE DEI Grant on Diversity, Equity, Inclusiveness was awarded to 9 applicants by the IEEE WIE Committee in April 2024.

- A WIE event was organised during International Conference on Big Data Analytics in Bioinformatics (DABCon) 2024 from November 2021-23, 2024 at Narula Institute of Technology, Agarpara.

- The Inaugural ceremony of BBIT-WIE Students' Branch Affinity Group & Distinguished Lecture on Brain Computer Interfacing: A Machine Learning Approach was held on November 25, 2024 at Budgebudge Institue of Technology. The Department of ECE, Budge Budge Institute of Technology Kolkata collaborated with IEEE-WIE (IEEE Women in Engineering),

with IEEE-MTTS and WIE Student Branch inaugurated the WIE Student Branch Affinity Group for the event.

- The Dare to Dream -Episode 8 was held on November 30, 2024, Online by IEEE WIE Kolkata Section. Its 8th Episode was with Dr. Surekha Zingde, Retired Dy. Director, Cancer Research Institute, ACTREC, Tata Memorial Centre, member of the Board of Trustees of the Indian Women Scientists' Association (IWSA) and past President of IWSA.

- A WIE Session in EDKCON 2024 was held on December 1, 2024, Kolkata. EDKCON series of Conferences is organized by IEEE EDS Kolkata Chapter.

- IEEE AISYWLC 2024, a flagship event dedicated to empowering young professionals, Women in Engineering, Life members, academicians, scholars, entrepreneurs and technocrats was held during, 7-8 December 2024 at College of Engineering, Guindy, Anna University, Chennai, Tamilnadu, India.

- IEEE Women in Engineering (WIE) technically sponsored a FDP on "Quantum Enabled Science and Technology" (QuEST) from 9-13, December 2024 in Online mode. It was organized by IEM Kolkata.

- A WIE session in CALCON, flagship conference of IEEE Kolkata Section, 2024 was held on December 14, 2024 at Jadavpur University.

Life Member (LM) Affinity Group

- IEEE LMAG India Council and IEEE LMAG Kolkata Section organised an online technical talk on IoT in Agriculture on Thursday 25.04.2024 Time: 7 : 00 pm to 8 : 30 pm . The speaker was Prof. (Dr.) Bijoy Kumar Upadhyaya, Principal-in-Charge, Tripura Institute of Technology, Narsingarh, Tripura (West) – 799009. No. of Participants: 19 IEEE Members and 6 Guests – Total 25

- IEEE LMAG India Council and IEEE LMAG Kolkata Section organised an online technical talk on *The Challenges and Opportunities of UAV-Enabled Integrated Sensing and Communication in 6G* onThursday 11.07.2024 Time: 7 : 00 pm to 8 : 30 pm. .
The speaker was Dr. Basabdatta Palit, Assistant Professor, Deptt. of ECE, NIT Rourkela, Sector -1, Odisha - 769008 .No. of Participants: 20 IEEE Members and 6 Guests – Total 26

- IEEE LMAG India Council and IEEE LMAG Kolkata Section organised an online technical talk on *Semiconductor Technology shaping the future* on 28.11.2024 Time: 6 : 00 pm to 7 : 30 pm. The speaker was Dr. Mousiki Kar, Associate Professor, Deptt. of ECE, Heritage Institute of Technology, Kolkata – 700107. No. of Participants: 19 IEEE Members and 6 Guests – Total 25

SIGHT Special Interest Group

- Kolkata Section SIGHT Group (Special Interest Group for Humanitarian Technology) has been able to successfully reach out to 937 beneficiaries across Assam, Bihar, Jharkhand, Odisha and West Bengal with the active support of 141 faculty and student volunteers in the year 2024.

- A hands-on workshop, 'Combating Climate Change with Technology', was held on September 12, 2024, at Heritage Institute of Technology, Kolkata. The workshop hosted 20 girls from Piyali Learning Center-PACE Universal along with 4 faculty members.

- An Empowering Rural Youth with STEM workshop on Combating climate change through renewable energy was held on December 23, 2024 at IIT Patna, Bihar. The one-day workshop on Renewable Energy and Climate Action aimed to inspire and educate high school students from nearby village schools on combating climate change through sustainable solutions.

- A STEM Workshop for High School Students was organized by Jadavpur University on December 20, 2024 at Howrah Zilla School, Howrah, West Bengal for Classes X to XII to enhance their understanding of computer systems and microprocessors, with a focus on Boolean logic and assembly language programming.

- A STEM for Sustainability: Smart Solutions for Climate Resilience was organized on December 17, 2024 at Budge Budge Institute of Technology, Kolkata, West Bengal for students of BBIT Public School, Budge Budge. The workshop aimed to educate high school students on using STEM tools to address climate change and improve disaster resilience.

- A One day workshop on 'Innovative Solutions for Climate Change and Disaster Awareness: A Program with High School Students' was held on December 16, 2024 at Narula Institute of Technology, Agarpara, Kolkata, West Bengal. This initiative, tailored specifically for high school students, aimed to raise awareness and explore innovative approaches to addressing the challenges posed by climate change and natural disasters.

- A STEM/Disaster Awareness Workshop on Advancements in Artificial Intelligence in Climate Change Mitigation and Disaster Management was held on December 19, 2024 at Techno India University, Kolkata, West Bengal. The workshop aimed to familiarize high school students with cutting-edge AI tools that predict weather patterns, track environmental changes, and identify pollutants to enhance climate resilience.
- The 43rd Computer Society of India (CSI) Computer Day Celebration was held on December 21, 2024, at the RCC Institute of Information Technology (RCCIIT), Kolkata. The celebration featured a series of contests, including a Technical Quiz, Poster Making, Essay Writing, Debate, and Extempore.
- The Department of Electrical Engineering, Narula Institute of Technology, in collaboration with the IEEE Humanitarian Technologies Board, IEEE MOVE Outreach India Program, and IEEE Kolkata Section SIGHT Group, organized a One Day Workshop on "Disaster Awareness Camp: A Prototype Development Workshop" on December 20, 2024, at the institute's Project Laboratory. The workshop aimed to raise awareness about disaster management through practical, hands-on prototype development.
- A Workshop on STEM and Disaster Management was held on December 18, 2024 at Adamas University, West Bengal to inspire students to use STEM to address climate change and enhance disaster resilience.
- A Workshop on Empowering Communities: STEM Strategies for Disaster Awareness and Preparedness was held on December 14, 2024 at ARKA JAIN University, Jamshedpur, Jharkhand by the IEEE Student Branch, to focus on empowering local communities to address disaster preparedness and awareness through STEM (Science, Technology, Engineering, and Mathematics) strategies.
- A Disaster Awareness with Experts and Sensor Hands-On workshop was held on December 30, 2024 at Sankar Madhav Naat Ghar, Assam. High school students from Barchala H.S. School, D.A.V. Public School, and Sankardev Sishu Niketan gathered at the for a workshop focused on disaster awareness and sensor-based solutions.
- The workshop on "Sustainable Energy and STEM: Enhancing Disaster Awareness and Response" was held on December 19, 2024 at Future Bhubaneswar School, Bhubaneswar, Odisha to explore the role of sustainable energy in disaster management and raise awareness about the importance of STEM education and innovations in enhancing disaster resilience. The event had 76 school student participants, 6 volunteers, 8 IEEE members, and 12 non-IEEE members in attendance.
- A STEM Awareness Workshop titled 'Facing Climate Change: Disaster Awareness Workshop', was organized to raise awareness about the challenges and importance of disaster management in the context of climate change on December 18, 2024 at GNIT Campus, Sodepur , West Bengal.
- A Workshop on Case Studies: Effect of Cyclone on Society was held on December 24, 2024 at Government Science College, Chhatrapur, Odisha. The workshop focused on the impact of cyclones on society.
- A Workshop on Frameworks in Disaster Management was held on December 26, 2024 at KIIT University, Odisha. An expert lecture by Mr. Sushanta Sethi, Former Chief Fire Officer, Govt. of Odisha, followed by a panel discussion moderated by Prof. Dilip Kumar Bera were organized as part of the workshop.
- A Workshop on IT Support System During Disaster Management was held on December 27, 2024 at Siddhi Vinayak Higher Secondary School, Balasore, Odisha. The role of IT support systems in disaster management was discussed.

- A Disaster Preparedness and Awareness Among Student Community was held on December 30, 2024 at Elite Institute of Science & Applications, Cuttack, Odisha.
- A one-day workshop on Recent Innovations for Disaster Awareness through STEM was organized for high school students from Supaul district, Bihar, focusing on disaster awareness through STEM on December 22, 2024 at Supaul College of Engineering, Bihar.
- An outreach event, 'Innovation in STEM', was held at at Chak Kolarkhal FP School, Kolkata, West Bengal on February 09, 2024. A team of six undergraduate engineering student volunteers visited Chak Kolarkhal FP School, a government primary school, to conduct interactive educational sessions.

B.5   Student Activity:

IEEE Student Branch Tezpur University

- The IEEE Student Branch Tezpur University successfully organized an engaging and educational event titled "IEEE-Microwave and Antenna Week," which spanned the months of April and May 2024. This event, featuring a series of webinars and a hands-on technical session, was aimed at promoting the goals and objectives of the IEEE Microwave Theory & Technology Society and IEEE Antennas and Propagation Society.

- Microwave and Antenna Week was organized on April 20th, May 9th & May 11th, 2024 at Tezpur University, ECE Dept, School of Engineering by IEEE Student Branch, Tezpur University.

- The IEEE Student Branch Tezpur University, in partnership with the IEEE Engineering Medicine and Biology Society, Northeast India, successfully hosted a captivating three-day webinar series on "Nanotechnology in Healthcare" from the 2nd, 3rd & 4th of May, 2024 in online mode.

- A One-Day IEEE EMBS Distinguished Lecture Series on Fusion of Biology and Technology was organized by the EMBS Joint Chapter Kolkata Section and Guwahati Subsection, in collaboration with the IEEE Student Branch at Tezpur University, on May 11, 2024 at Tezpur University, Dean's Gallery, School of Engineering.

- An Online Lecture by Prof. Ram Bilas Pachori, Department of ECE, IIT Indore on "Multi-channel signal processing: An important direction for biomedical data analysis and classification".

- An Online Lecture by Dr. Saugat Bhattacharyya, School of Computing, Engineering and Intelligent Systems, Ulster University on "Next-Level Human Augmentation through Collaborative Brain-Computer Interfaces".

- An Online Lecture by Dr. Malaya Kumar Nath, NIT Puducherry on "Explainable AI for identifying the diagnostic information from ECG Signals."

- The lecture series was followed by a spirited Bio-Tech Quiz, involving students from various departments of the School of Engineering and the School of Sciences.

PART C - OTHERS

C.1 Relationship with National Societies

- The relationship with National Societies like The Institution of Engineers (India), The Institute of Electronics & Telecommunication Engineers India (IETE), and Computer Society of India is cordial.

C.2 Problems to be Anticipated

While each IEEE section is unique, there are some common challenges and problems that may be anticipated. Here are a few:

1.   **Membership Engagement:**
• Retention: Maintaining and increasing membership can be a challenge. Sections may face difficulties in retaining existing members and attracting new ones.
• Inclusivity: Ensuring that the section is inclusive and welcoming to individuals from diverse backgrounds and career stages can be a constant concern.

2.   **Financial Management:**
• Funding: Sections often rely on funding for events, activities, and operations. Securing consistent funding and managing finances effectively can be a challenge.
• Sponsorship: Attracting sponsors for events or other activities may pose difficulties, especially in economic downturns.

3.   **Event Organization:**
• Attendance: Getting members to attend events can be challenging due to busy schedules, competing commitments, or lack of interest.
• Relevance: Ensuring that events and activities are relevant to the diverse interests of members can be a constant struggle.

4.   **Leadership Transition:**
• Succession planning: Ensuring a smooth transition of leadership can be challenging. Having a plan for succession and leadership development is crucial.

5.   **Technology and Communication:**
• Adopting Technology: Keeping up with and adopting new technologies for communication and event organization can be a challenge for some sections.
• Communication: Maintaining effective communication channels within the section can be difficult, especially with a large and diverse membership.

6.   **Government Regulations and Compliance:**
• Compliance: Ensuring that the section complies with local laws and IEEE regulations can be challenging, particularly if there are changes in legislation.

7.   **Member Benefits and Value Proposition:**
• Demonstrating Value: Communicating and demonstrating the value of IEEE membership and section involvement can be challenging, particularly for early-career professionals.

8.   **Globalization:**
• Diversity of Members: Sections may have members from diverse cultural backgrounds. Ensuring that the section is inclusive and sensitive to cultural differences can be challenging.

9.   **Collaboration:** Collaborating with other IEEE sections or professional organizations can be challenging due to differences in priorities, schedules, and organizational structures.

10.   **Adapting to Change:**
• Technological Changes: Adapting to rapidly changing technologies and ensuring that the section remains relevant can be a continuous challenge.

Sections that actively address these challenges through strategic planning, effective communication, and member engagement initiatives are more likely to thrive and provide valuable experiences for their members. Regular feedback from members can also help identify and address specific concerns within a section.

C.3 Best Practices of your Section

- The Section holds EXECOM Meeting almost once a month.

- The AGM is organized every year in January over dinner with at attendance of over 200 members separate student congress for student members.

- IEEE Kolkata Section supports funding a token amount to its members for presenting papers at IEEE conferences.

- The Section strongly supports Technical Co-sponsorship for conferences but at the same time has implemented new rules to improve the quality of conferences. It includes mandatory subscription to IEEE Xplore, active IEEE Student Branch and faculty IEEE members.

- Any organization having a repeated conference must have an increase in its regular IEEE membership.

- Outstanding Volunteer awards are given to promote contribution to IEEE activities.

- Lifetime Achievement awards are given to senior IEEE members of the section in recognition of their contribution to IEEE activities.

- The Section flagship conference CALCON is bi-annual, with all papers uploaded to IEEE Xplore.

- The Section funds student outreach programs with different Societies.

- IEEE Kolkata Section supports funding a token amount to its student members for presenting papers at IEEE conferences.

- The Section promotes growth in Student Branches and student members in an academic institution by making it mandatory to have one in order to qualify for IEEE Xplore in a Conference.

- Outstanding Student Volunteer awards are given to promote student contribution to IEEE activities.

- The Section provides Technical Co-sponsorship to conferences approved by its Sub-Sections.

- IEEE Kolkata Section supports hosting of IEEE India Council flagship conferences like INDISCON and INDICON by its sub-sections.

- The Section invites EXECOM members from its sub-sections to be a part of the EXECOM of the Kolkata Section .

- Outstanding Student Volunteer and Volunteer awards are open for nomination from any of its sub-sections for contribution to IEEE activities.

- Outstanding Section Membership Recruitment Achievement and Outstanding Section Retention Performance Award over almost a decade.

<p style="text-align:center">PART D – GOALS AND PLANS</p>

D.1 Goals

1. **Member Engagement:** Promoting active participation and engagement of IEEE members within the local community.
2. **Professional Development:** Providing opportunities for members to enhance their professional skills and knowledge through conferences, workshops, seminars, and other educational activities.
3. **Networking:** Facilitating networking opportunities among professionals, researchers, and students in the field of electrical and electronics engineering.
4. **Technical Activities:** Organizing technical events, conferences, and seminars to disseminate knowledge, share research findings, and foster collaboration among members.
5. **Student Activities:** Supporting and encouraging student members through activities such as student branch events, competitions, and mentorship programs.
6. **Community Outreach:** Engaging with the local community to promote awareness and understanding of electrical and electronics engineering and contributing to societal well-being through technology-related initiatives.
7. **Publication and Communication:** Disseminating information about IEEE activities, events, and technical advancements through newsletters, websites, and other communication channels.
8. **Promoting Diversity and Inclusion:** Fostering an inclusive environment that welcomes individuals from diverse backgrounds and encourages their active participation in IEEE activities.
9. **Collaboration with Industry:** Establishing connections with industry partners to bridge the gap between academia and industry, fostering collaboration for mutual benefit.
10. **Advocacy:** Representing the interests of IEEE members at the local level and advocating for policies that support the advancement of technology and the engineering profession.

D.2 Implementation Plans

1. **Facilitate a Comprehensive One-Day Program:**
   - Coordinate a one-day program that brings together Branch Counselors from all student branches.
   - Foster collaboration, share best practices, and strengthen the network among counselors.
2. **Conduct Annual Memorial Lectures:**
   - Host special memorial lectures each year to commemorate distinguished individuals and promote knowledge sharing.
   - Provide a platform for insightful discussions on impactful topics within the IEEE community.
3. **Promote Youth and Student Educational Programs:**
   - Emphasize the significance of IEEE involvement through targeted initiatives for Young Professionals (YP) and student members.
   - Create awareness about the educational opportunities and benefits associated with active participation in IEEE activities.
4. **Empower Women in Engineering (WIE):**
   - Organize programs that actively involve Women in Engineering (WIE) members.
   - Advocate for the IEEE WIE cause by engaging in outreach activities to inspire and empower young women in the field of technology.