REGION 10 MADRAS SECTION REPORT 2022

PART A - SECTION SUMMARY

A.1 Executive Summary

- **Section Executive Committee Member List**

Sl.No.	Name	Position
1	Dr. K. Porkumaran	Chairman
2	Dr. N. Kumarappan	Immediate Past Chair
3	Dr. P. Sakthivel	Vice Chairman (academic)
4	Dr. S. Joseph Gladwin	Vice Chairman (Industry)
5	Dr. R. Hariprakash	Secretary
6	Dr. S. Radha	Treasurer
7	Dr. D. Nirmal	Member
8	Dr.R.G. Sangeetha	Member
9	Dr. S. Brindha	Member
10	Mr. M. Arun	Member
11.	Dr. V. Nagarajan	Member
12.	Dr. S. Rathinavel	Member
13.	Mr. B. Ashvanth	Member

- **Section Highlights & Major Events (International, National)**

IEEE Day 2022:

The IEEE Day 2022 Celebrations was organized on 15 Oct 2022 at TAG Auditorium, Anna University. About 150 members participated in the event. The event started with the welcome address and briefing on the event highlights by Dr.K.Porkumaran, Chair, IEEE MAS. Dr. P. Sakthivel, Vice Chairman, IEEE MAS, Introduced the Chief Guest. Dr. Vaidehi Vijayakumar, Vice-Chancellor, Mother Teresa Women's University, Kodaikanal delivered the Keynote Address. She insisted the importance of Professional society membership. IEEE Madras Section honored Mr.CR. SASI, Life Senior member, Former Chair, IEEE Madras Section & Shri. Sundaresh S, Chair, LMAG, Madras Section for their contribution to the section & Society.

IEEE Madras Section Awards for the year 2022 was awarded to most hardworking and enthusiastic volunteers who contributed to the IEEE. Awards under various categories like Best Student Volunteer, Best Student Branch, Best WIE Volunteer, Best Young Professional Volunteer, Best Research Paper Award was awarded under three

different age categories Under 40, between 40 to 50 and Above 50, IEEE MAS Xtreme Best Team Award, Best Proctor Award, Highest Participants Count Award – 2022.

Madras section also Recognized IEEE Members who have published their research articles in IEEE Transactions & Journals with Publication Award. Certification of appreciation & Cash Awards were honored to IEEE MAS SB Awardees 2021.Mr. M Arun, Chairman, IEEE Madras YP presented the Achievements of IEEE Madras Section. Dr. R. Hariprakash, Secretary, IEEE Madras Section proposed the Vote of Thanks.

IEEE Student Branch Officers' Meet:

IEEE Madras Section organized IEEE Student Branch Office Bearers Meeting organized on 15 Oct 2022 (9.00 AM to 3.30 PM) at TAG Auditorium, Anna University Chennai. The event was inaugurated by the Dr.K.Porkumaran, Chairman, IEEE Madras Section(MAS) welcomed everyone and shared the activities and valuable events that happened in 2022, honoring the funds raised by the Madras section, Student Branches, and appreciated section students, ExCom Members, Professional Members and Student Branches, who worked hard and deserved the awards. Dr.R.Hariprakash, Secretary, IEEE MAS addressed the Importance of being an IEEE Member, he shared the statistics count of the section. gathering by discussing the agenda of the meeting followed by Dr.P.Sakthivel Vice-Chairman Academics, who kick started the office bearers meeting. Dr.D.Nirmal, Chair Awards Committee shared his views on IEEE Student Branch awards and opportunities. Dr.S.Brindha, Student Activities Chair shared a few words on the action plan for student branches for 2022 – 2023. IEEE Madras Section Young Professionals Chair Mr.M.Arun guided the student officers on the guidelines and newsletter reporting. IEEE Madras Section Treasurer Dr.S.Radha shared information on IEEE SB funding opportunities from IEEE Madras Section and other IEEE sources. Mr.B.Ashvanth IEEE Madras Section Excom member had trained the student officers on the practical tools for student branch and website hosting.

Eight Student Branches presented their activities and shared the best practices followed at their SB. Senior Members Shri. C.R. Sasi & Dr. Elangovan shared their experiences during networking session. Event concluded with vote of thanks & Group photo. Around 75 Student Branch Counselors/ Chair/Representatives from SB'S attended the event.

Student Project Funding:

In order to encourage technology advancements, Creativity, and innovation project proposals were invited from all the Student branches of the Madras Section. 59 different project proposals were received and the proposals were scrutinized by the member review committee of the relevant specialization based on the recommendation by the committee, 32 project proposals were shortlisted. The presentation and demonstration of these projects were held in the month of April and the following best projects have been funded.

Technical Sponsorships and Financial Assistance to the student branches:

IEEE Madras Section provides Financial Assistance to the activities such as, Conferences, Workshops, Seminars, Symposia, etc., organized by the student branches. The norms that have been defined for such Financial Assistance are based on the budget and number of members available in each branch. During the year 2022, 3 such programs have been extended financial support to the tune of Rs. 50,000/-

Faculty Development Program (FDP)

In order to enhance the quality of teaching-learning Section is actively conducting the Faculty Development Programs in the relevant technical areas in various Engineering Institutions located in Tamil Nadu. During the year 2022, 4 such programs were organized.

Section Technical Chapter:
IEEE Madras Section has 29 Technical Society Chapters and 3 Affinity Groups. The tables below indicate the Technical Society Chapters, Affinity groups Chairpersons:

Technical Society Chapters:

Si.No.	Society Name	Chairperson
1	Aerospace and Electronic Systems (AES)	Dr.T.Muthumanickam
2	Antennas and Propagation (APS)	Dr.T.Shanmuganantham
3	Broadcast Society (BS)	Dr. B. Nagaraj
4	Computer Society (CS)	Dr. P. Sakthivel
5	Communications (COMSOC)	Mr. P. Subramanian
6	Computational Intelligence (CIS)	Dr. N. Kumarappan
7	Control Systems (CSS)	Dr.N.S.Bhuvaneswari
8	Engineering in Medicine & Biology (EMBS)	Dr. K. B. Jayanthi
9	Electron Devices (EDS)	Dr. D. Nirmal
10	Education (ES)	Mr. A. Darwin Jose Raju
11	Electromagnetic Compatibility(EMCS)	Dr. P. Salil
12	Geoscience and Remote Sensing (GRSS)	DR. S. S. Ramakrishnan
13	Industrial Applications (IAS)	Mr. R.Srinivasan
14	Information Theory (ITS)	Dr.V.Gomathi
15	Instrumentation and Measurement (IMS)	Dr. Uppu Ramachandraiah
16	Industrial Electronics (IES)	Dr. M. Arun
17	Microwave Theory and Techniques (MTTS)	Dr. V. Abhaikumar
18	Nano Technology Council (NTC)	Dr Madheswaran
19	Power and Energy (PES)	Dr. Mahesh Kumar
20	Power Electronics (PELS)	Dr.R.Seyezhai
21	Product Safety Engineering (PSES)	Dr. R.Dhanasekaran
22	Professional Communication (PCS)	Dr. E. Kannan
23	Photonics (PS)	Dr. C. Arunachalaperumal
24	Robotics and Automation (RAS)	Dr.Vinod B
25	Social Implications of Technology (SITS)	Mr. R. Navaneethakrishnan
26	Signal Processing (SP)	Dr. N. Venkateswaran
27.	Technology and Management (TEMS)	Dr. Kulanthaivel
28.	Oceanic Engineering (OES)	Dr. Sannasiraj
29.	Vehicular Technology Society(VTS)	Dr. S. Brindha

Affinity Groups

Sl.No.	Affinity Group Name	Chairperson
1.	WIE Affinity Group	Dr. T. Shree Sharrmila
2.	Young Professionals	Mr. M. Arun
3.	Life Members	Mr. S. Sundaresh

IEEE Section Newsletter
MAS LINK, the newsletter of Madras Section is being published once in two months as an eNewsletter, It is circulated to all the members of the section including student members. Each issue is uploaded to the IEEE Madras Section website in order to reach more members around and to add more information. The newsletter includes the following:

1. Chairman's Message
2. Editor's Column
3. Activities are reported by the various student branches & student branch chapters of the section to encourage better performance.
4. Activities reported by the various society units.
5. Announcements and reporting regarding the Conferences, Workshops, Seminars, Symposia, etc., coordinated by the section, technical society chapters, affinity groups, and student branches functioning in

various institutions.
6. Achievements of professional members.

- **Major Chapter Activities**

Sl.No.	Society Name	No. of Meetings Conducted
1.	Aerospace and Electronic Systems (AES)	4
2.	Computer Society (CS)	24
3.	Communications (COMSOC)	2
4.	Education (ES)	7
5.	Electromagnetic Compatibility (EMCS)	4
6.	Industrial Applications (IAS)	3
7.	Microwave Theory and Techniques (MTTS)	2
8.	Power and Energy (PES)	5
9.	Power Electronics (PELS)	4
10.	Professional Communication (PCS)	8
11.	Photonics (PS)	3
12.	Signal Processing (SP)	8
13.	Technology and Management (TEMS)	9
14.	Vehicular Technology (VTS)	8

- Major Student and Affinity Group Activities

Major Student Activities:

- Student Branch officer meet.
- Technical Lectures/Webinars different regions of section: In order to have more student-centric participation, technical lectures were conducted in different cities by the section, technical and student activities committee.
- Graduate Student Project Funding.

Major Affinity Group Activities:

Young Professionals:

STEP 2022 : Skillup To Empower Professional Career:

IEEE Madras Section Young Professionals hosted their flagship event **"Step 2022- Skillup To Empower Professional Career "** on 19th November 2022, at Sri Sairam Engineering College, Chennai. The Step 2022 was an enlightening event about IEEE Opportunities and it expanded the benefits of being an IEEE Member. The event was sponsored by IEEE Young Professionals, IEEE Madras Section, IEEE MAS Product Safety Engineering Society, IEEE MAS Photonics Society, IEEE MAS Communication Society, IEEE MAS Computer Society, IEEE MAS Professional Communication Society, IEEE MAS Society on Social Implications of Technology, IEEE MAS Education Society, IEEE MAS IEEE Technology and Engineering Management Society, IEEE MAS Life Member AG, IEEE MAS Women In Engineering AG. The inauguration begins with welcoming the participants volunteers and the speakers who are the highlight of the event and by taking pledge on code of Ethics.

Dr. Porkumaran Chairperson of IEEE Madras Section gave vision about the ***Opportunities in IEEE*** along with that he shared the details about the local group which creates a huge impact towards the IEEE madras Section. Also he had shared about the active participation of IEEE Madras Section in IEEEXtreme competition and secured the top rank of participation. He shared the details about conducting orientation programs in various cities over the state to let the young minds know about the opportunities awaiting for one's professional skill development using IEEE platform.

Dr. R. Hariprakash Secretary of IEEE Madras gave deliberate talk on ***Opportunities in IEEE Madras Section Membership Development Committee.*** The opportunities that are present in IEEE Madras Section which have various paths to seek them such as Membership Development Committee opportunities, Young Professional Opportunities and about career goals such as job opportunities, higher studies and entrepreneurship. All these opportunities can be highlighted by the IEEE platform were clear and crisp in his talk. He finally concluded that keeping on having goals gives one a will to achieve. **Mr. Arun** chairperson of IEEE Madras Section Young Professionals and Executive committee member inspired the fellow students with the ***Funding opportunities in IEEE Madras Section***. His talk detailed about the student branch membership benefits based on the membership count, and about the funding's like Madras Section funding opportunities, SPAC funds, SPAVe funds, WIE funding, Region 10 SAC funds, IEEE foundation Funding, SIGHT projects, EPICS, Student Transition and Elevation Program (STEP), student branch benefits, Awards IEEE OU Analytics, awards and Annual Reporting. He concluded by saying that there are lots of opportunities available but IEEE volunteers are not aware of it. **Dr. Brindha S** Chairperson Of IEEE Madras Section Student Activity Committee gave a talk on ***Opportunities For Students in IEEE MAS SAC*** and how vital the strength of student volunteers over each and every event. Since she is the Chairperson of IEEE MAS SAC she says that she is open for any ideas from any student branch. And at present she has a volunteer from all the active student branches to come up with ideas. She concluded saying that, with the support of all student branches, currently she has set a goal to increase the participation of India council all over the globe over every IEEE competition, funding and events.

Mr. Sreekanth Student Branch Councilor of IEEE Student Branch St. Joseph Engineering College, Executive Committee member, shared about ***How Societies Can Play A Major Role In Professional Growth*** and fact that there are 26 active societies in IEEE Madras Section currently and each and every student branch can have all these society chapters and can benefit the students of their student branch with many more events and these societies give huge opportunity to explore a lot. He also shared about the cost of society membership and the discounts that are available for getting the cost reduction for the membership.

Mr. Shyam, CEO and founder of Tamilpreneur, inspired the audience with his inspirational life incident and shared with us about the changing point of his career and discussed about ***Opportunities for Young Professionals.*** By his dispassionate way of speaking, he provided a lot of bonuses like Nasscom courses and Startup ideas. He taught us how to imply our idea to a startup and cleared the initial way of crises faced by the Youngsters to open up a company. Tamilpreneur got the prestigious recognition as Head of South Chennai Circle by Startup Tamil Nadu to promote Entrepreneurship. At last, the students interacted with him and clarified their queries.

Mr. Ashwanth, Vice Chairperson of IEEE Madras Section, he cleared up on ***Softskill development*** and Workplace culture which relates with soft skills the most. Next comes about Critical thinking – the 4D rule to retain it was Do, Defer, Delegate and delete. Then, he thought us how important the communication skill involve body language and concise reach on the audience the bias we face in communication was pointed out. The vital six skills in critical thinking are Interpreting, Analyzing, Evaluating, Interring, Explain and Self monitoring. He also detailed the strategies to sharpen critical thinking. This was noteworthy session and helped to take pointers to deal with difficult situations and how to solve them with contriving qualities.

Dr. Chittibabu, faculty in the Indian Institute of Design and Manufacturing and a senior member of IEEE started the session with his enthralling experience and the passionate story of how he developed himself to achieve this position and gave keynote on ***Patent***, ***Publications and Research opportunities IEEE***. As a member of Power and Energy Society he guided his students to accomplish their project work and navigated to get National level Champions for that project. His knowledge of Photovoltaic was enchanting and motivated most of the budding generation. This was a spark conversation between students and speakers who were **Mr. Vignesh, Mr. Heyram, Ms. Indhumathi, Ms. Angayarkanni** and **Ms. Nandhita Kalyanasundaram.** Each of them elucidated the suspensions raised by the students and expressed their thoughts, explored the topics and provided worthwhile insights. Miss. Indhumathi cleared up the question raised by a student about how to connect IEEE with their career. She adjoined it with her real-time happening and made her significance. Miss. Angayarkanni shared experience on IEEE from her college days and how IEEE helped her to formulate communication skills by overcoming her introverted manner. Miss. Nandhita Kalyanasundaram has defined the importance of continuing IEEE after college. She made her points clear on the prominence and impact of IEEE in the workspace. Mr. Heyram sparkled us about the impacts of IEEE in the placement sector,as a final year student got to partake and explore additional skills other then studies. And this made him glitter from his colleagues and shine in his own path. Mr. Vignesh detailed about time management and how to balance studies and extracurricular activities as a process for professional development. Finnally, the event ended with thanking all the participants and volunteers for their presence by **Mr. Abdul Halik M I, Secretary of IEEE Madras**

Section. The speakers were felicitated with memorandums. The participants were able to gain more knowledge on IEEE and had a great chance to expand their networking.

The major takeaways are

- Key benefits on continuing IEEE after graduation
- What IEEE Young Professionals offers
- This event helped for networking skills
- Various Student Branch students collaborated and implemented their active participation.
- Improved the knowledge of IEEE among student members and they got awareness about the opportunities and benefits of IEEE.

Women In Engineering:

IEEE YESIST12- Youth Endeavours for Social Innovation Using Sustainable Technology 2022
IEEE YESIST12 (Youth Endeavors for Social Innovation using Sustainable Technology) ASIA: AGE OF INNOVATION 2022 is a Coding and Making Challenge jointly organized by Madras IEEE Education Society Chapter, hosted in partnership with IEEE sections, IEEE MAS WIE, Universities, and leading technology industry companies. The theme was on, "Preparing for Future - Sustainable Transformative Technologies." The YESIST12 Grand Finale was held as a hybrid event in Sri Venkateshwara College of Engineering, Bangalore from September 10, 2022, to September 11, 2022. The event was live on Microsoft Teams. The international talent show, IEEE YESIST 12 was filled with students and young professionals showcasing their fresh pristine ideas to find the key to humanitarian and social issues affecting directly the community around them. A year-long journey of finding the right talents led to the Grand Finale with immense participation from finalists, volunteers and delegates. There were 6 tracks: Innovation Challenge Track, Junior Einstein Track, Maker Fair Track, WePOWER Track, and Special Track. The two-day competition will consist of project presentations and exhibitions by school children, engineering students, and young professionals.

IEEE WIE PROJECT-BASED LEARNING SCHOOL CAMP 3.0

A Collaborative Initiative by Ramneek Kalra (IEEE Impact Creator), WIE Madras Section, WIE Gujarat Section, WIE UP Section, and WIE Bombay Section AGs in association with IEEE TryEngineering Stem Portal, Youth for Sustainability, Junior Einstein Track (IEEE YESIST12-2022), Raspberry Pi, Bhumi Foundation and Infinite Engineers with utmost support of the Host Partner - Manav Rachna University, Haryana, India. In order to provide knowledge of the importance of pre-university education in the school students from Grade 8th to 12th, for the first time ever IEEE Women in Engineering Project Based Learning School Camp 3.0 is organized in Hybrid mode at Manav Rachna University, Faridabad, Haryana, India was held from 18th -25th June 2022 concentrating on the theme of "Sustainability Technology for Humanity".

Returning Mothers Conference 2022
IEEE Returning Mothers Conference 22 was successfully organized on 4th & 5th November 2022 at Kalinga Institute of Industrial Technology, Bhubaneswar in Hybrid mode. The conference had three tracks - Entrepreneurship Track created to educate women on career advancement and offer guidance on establishing their own enterprises, Education track - aimed to provide excellent knowledge of technical, and non-technical, communication skills, entrepreneurship, personality development, and Empowerment Track - offers a warm and knowledgeable viewpoint to establish a solid foundation for removing obstacles that are holding us back from achieving the goal. RMC provided an interactive platform to foster communication, creativity, and teamwork for the select group's empowerment, engagement, and development of innovative minds. The conference discussed how to connect attendees with businesses that are eager to hire women and welcome them back into the national or international workforce. IEEE MAS WIE was one of the sponsors for RMC 22. Key takeaways of the conference include -Wide and deliberative platform to create a unique approach for rebuilding a career, Influence oneself with excellent knowledge in career enhancement and empowerment, Creating a vital proficiency in entrepreneurship fragment, Gain the missing puzzles like confidence, potential, performance, updates and lot more, Make the first step prominent with the experienced hands, and of course networking! develop a wider circle than you imagine.

- **Awards**

During Annual Meet (AM), every year, Cash awards and appreciation certificates are awarded to the active and dynamic student branches based on the performance of the student chapters and society units. The Student Branches having a maximum number of members are also honored during the AM. During the last year, appreciation certificates were given to the top 3 best performing Student Branches and societies chapters of the section. These awards were distributed during the Annual Meetings, to motivate the student branches to perform better. It resulted in the enhancement of the higher-level performance of the student branches.

The following awards were given to Student Branches to Motivate the Members:
- ❖ Student Branches conducting more number activities
- ❖ The Student Branch having a maximum number of members, an award given to top three colleges

A.2 Financial Report

- **Summary (as per submitted on NetSuite) – Accounts Submitted via Next gen**
- **Any other financial activities:**

  - Financial support for the student branches
  - Project funding for students
  - Incentive awards to student branches and society chapters
  - Funding given to organizing Faculty Development Programs
  - Funding given to conduct Technical Lectures
  - Sponsorship of Rs 25,000 given to AISYWC 2022, Pune section

PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

- **Total number of active members in the past 3 years.**

  The details of Membership as of 31st Dec 2019, 2020, and 2021 are given below:

	31 Dec 2020	31 Dec 2021	31 Dec 2022
Life Fellow	1	1	1
Fellow	4	4	5
Life Senior	20	22	22
Senior Members	381	440	606
Life Members	9	10	12
Members	1748	2266	2250
Affiliate Members	19	16	29
Associate Members	25	54	57
Graduate Student Members	530	540	453
Student Members	3659	4754	6036
Total Membership	**6396**	**6396**	**9471**

- **Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members**

Section Membership Development Committee (MDC) has prioritized supporting and addressing the requirements of members, as well as IEEE membership recruiting and retention tactics. In 2022, the MDC team worked on a variety of initiatives to keep, improve, and assist IEEE members throughout the Student Branches. With the effort taken by MDC team Membership of the section increased.

B.2 Chapter Activities

- Total number of Chapters in the Section - 29
- Number of Chapters formed in the current year -1
- Number of active Chapters - 28
- **Summary of Chapter activities**

Aerospace Electronics Systems Society(AES)

Sl. No.	Event Date	Topic	Speaker Name
1	02.04.2022	A Seminar on Embedded and IoT Application	Mr.Mohammed Fareed
2	24.05.2022	A seminar on Multisensor Data Fusion Technology in Aviation	Mr. M P Varghese
3	25.05.2022	A Multidisciplinary Approach towards Airplane Health Monitoring	Mr. Kaustubh Kumar Shukla

| 4 | 09.11.2022 | A seminar on Structural and Airplane Health Monitoring using Microelectronics | Mr. Kaustubh Kumar Shukla, |

Computer Society(CS)

Sl. No.	Event Date	Topic	Speaker Name
1	12.02.2022	Technology in Healthcare in 2030: A peep into the future	Dr. Krishnan Ganapathy,
2	11.03.2022	Cloud Based Information Technology Solutions to MSMEs	Mr. S Vijay Venkatesh,
3	26.03.2022	Soft Computing: Why, What, When and How?	Dr. S.N. Deepa,
4	18.04.2022	Agile Scrum Deployment for Business Gains	Ms. Rama Bedarkar
5	29.04. 2022	Indian IT Industry – Past, Present & Future	Mr. Harish Mehta
6	14.05.2022	Game Theory and AI for Industrial Management Systems	Prof. Sardar M. N. Isla
7	28.05.2022	Quantum Computing and Machine Learning	Mr. Mukesh Rao
8	11.06.2022	Edge Intelligence for IoT Applications	Dr. Shajulin Benedic
9	25.06.2022	Role of ICT in Police Dept. and Career Opportunities	Dr. M. Ravi
10	26.06.2022	Yoga Practice cum Demonstration	Ms. Pushpa Krishnaswamy
11	9.07.2022	SDWAN Technology and it's Benefits	Mr. Srikumar S Subramanian
12	23.07.2022	AI and Drone to monitor plant operations	Dr. Sheela Siddappa
13	13.08.2022	Data to Decisions: Creating, Consuming, Interpreting, and Using Information	Prof. N. Gautam
14	27.08.2022	Role of Industry Domain Knowledge in Software Development	Mr. Manoj Kumar Lal,
15	02.09.2022	The AI-Cybersecurity Nexus: The Good and the Evil	Dr. San Murugesan
16	10.09.2022	Economic Platforms: Enterprise Architectures in the Era of Blockchain	Mr. John deVadoss
17	08.10.2022	Zero Trust Architecture - A New Age Definition of Trust based Network and Data Security	Mr. K. Rajeswar Rao
18	12.11.2022	Trends in Space Technologies and Opportunities for Computing	Mr. Murali Sundaram
19	26.11.2022	Machine Learning Beyond Algorithms	Mr. M. A. Rajeev
20	30.11.2022	Privacy & Security in every one's life	Mr. Sairam Palabindela,
21	10.12.2022	Marketing in the Metaverse - Time to Explore, Experiment and Monetise	Mr Sunil David
22	10.12.2022	Future of Software Testing - Chaos Engineering & Evolving Systems for Reliability	Mr. Abhilash Gopalakrishnan,
23	16.12.2022	Business Plan for Entrepreneurial Ventures	Ms. Sarada Ramani
24	18.12.2022	Classical Ragas in Tamil Film Music & Technology in Music	Dr. Sundararaman

Communication Society(COMSOC)

Sl.No.	Event Date	Topic	Speaker Name
1	19 Nov 2022	IEEE MAS YP STEP 2022	Dr. Porkumaran, Dr. Hariprakash, & Multiple

| 2 | 1 & 2 December 2022 | Hands on Workshop on Understanding of Routing and Switching Concepts in Data Communication and Networking using CISCO Packet Tracer | Dr.V Jayaprakasan, Mr. V Tamilkumaran, |

Education Society(ES)

Sl. No.	Event Date	Topic	Speaker Name
1	28.05.2022	IEEE Project Expo 2022	Vishnu P R
2	10.08.2022	Induction Session	Ankayarkanni R
3	15.08.2022	IEEE MAS EduSoc Officers Meet	Darwin Jose Raju
4	10.09.2022	IEEE YESIST12 2k22	Mary Ellen Randall
5	19.09.2022	Design Skills of IoT Using Innovative Methods	Dr. A. Beulah David
6	19.09.2022	IEEE STEP- Skillup to Empower Professional Career	Shyam Siddarth
7	26.11.2022	E-SPIRE	Darwin Jose Raju

Electromagnetic Compatibility Society (EMCS)

Sl. No.	Event Date	Topic	Speaker Name
1	July 04 to Aug 16, 22	Internship Program on Electromagnetic Interference and Compatibility (EMI & EMC)	Dr.Ananth Krishna
2	03.06.22	Seminar on Vector Network Analyzer (VNA) for RF Measurements	Raghuraman Selvaraju
3	04.03.22	Seminar on Electromagnetic Scan-Phone	Mr. Akshay
4	07.04.22	Lecture on Introduction to Electromagnetic Compatibility	Dr.SureshKumar T R

Industrial Applications (IAS)

Sl. No.	Event Date	Topic	Speaker Name
1.	25.02.22	National Technology Webinar – on Telecommunication Technology	Mr. Murali Madhavan, &Multiple
2.	11.05.22	National Technology Day Celebration	Mr. S. Kirupa Shankar, & Multiple
3.	17.05. 22	World Telecommunication and Information Society Day	Multiple Speakers

Microwave Theory and Techniques (MTTS)

Sl. No.	Event Date	Topic	Speaker Name
1.	22.1.2022	RF Front End Architecture for GNSS Receivers	Dr.S.Deepak Ram Prasad
2.	17.10.2022	Journey through Microwave and Millimeter Waves	Dr.S.Raghavan

Photonics Society (PS)

Sl. No.	Event Date	Topic	Speaker Name
1	12.09. 2022	National level Technical Workshop on The Role of Software in the Design and Simulation of Optical and Photonics Devices, components and systems.	Mr. Amandeep Singh, Mr. Amit Dutta, and Mr. Praveen Yadav
2	13.10.22 & 14.10.22	Two Days National Workshop on Artificial Intelligence & Data Science in Photonics	Dr. M. Kaliappan.,
3	19.10.22	IEEE MAS YP STEP 2022 - Skillup To Empower Professional Career	Dr. Porkumaran, Dr. Hariprakash & Multiple Speakers

Power Electronics (PELS)

Sl. No.	Event Date	Topic	Speaker Name
1	03.03.2022	Workshop on Fault Tolerant Micro Grid Systems at SSN College of Engineering, Kalavakkam (Online mode)	Dr.S.Albert Alexander
2	22.04.2022	Distinguished Lecture on Single-phase inverter control techniques for interfacing renewable energy sources with micro-grid: Series connected inverter topologies with active and reactive power flow control along with grid current shaping at SSN College of Engineering, Kalavakkam (Physical mode)	Dr. Sanjib Kumar Panda(IEEE Fellow),
3	23.04.2022	Discussion Meeting & Interaction session: Faculty, Research Scholars and visit of research Labs at SSN College of Engineering, Kalavakkam (Physical mode)	Dr. Sanjib Kumar Panda(IEEE Fellow)
4	9.08.2022	Seminar on Reliability Modeling of Power Converters at SSN College of Engineering, Kalavakkam	Dr.M.Sujatha

Power and Energy (PES)

Sl. No.	Event Date	Topic	Speaker Name
1.	2.11.2022	Fault Detection and Identification Strategy for DC-DC Converter Interfaced Microgrids	Ms. B. S. Nalina
2.	9.11.2022	Embedded Type Switched- Inductor Switched Boost Multilevel Inverter for PV Array Interfacing	Ms. T. Divya
3.	16.11.2022	SF6 Alternatives – A Laboratory Testing Approach	Dr. Prem Ranjan
4.	24.11.2022	Big Data Analytics in Power Sector	Dr. S. S. Dheeban
5.	30.11.2022	Transactive Energy Framework for Community Micro grid with Demand Response Management	Dr. Hanumantha Rao Bokkisam

Professional Communication Society (PCS)

Sl. No.	Event Date	Topic	Speaker Name
1.	23-24.12.2022	How to improve the quality of research?	Prof. Dr. Prafulla Kumar Behera
2.	16.12.2022	Why is my paper not getting accepted?	Prof. C. Balaji T. T. Narendran
3.	16.12.2022	Business Plan for Entrepreneurial Ventures	Ms. Sarada Ramani,
4.	24.11.2022	Effective Communication and Public Speaking	Mr. Senthil Raj Jagadeesan
5.	23.11.2022	Nuances of 21st Century Skills and Personality Development'	Mr. H. R. Mohan
6.	19.11.2022	Campus to Corporate: Skills to Migrate	Mr. S. Johnson
7.	09.11.2022	Self-Development through Effective Communication	Prof. M. L. Saikumar
8.	05.11.2022	One Day Hands-on Training on Professional Communication	Dr. K.A. Agalya Dr.S.Gandhimathi Dr.R.Parameshwaran

Signal Processing (SP)

Sl. No.	Event Date	Topic	Speaker Name
1.	6.5.2022	IEEE SPS Distinguished Lecturer's Talk on Spectral Methods for Data Science	Yuejie Chi
2.	23-28.06.2022	IEEE SPS Seasonal School on Image, Audio and Video Processing for Pattern Recognition	Mr. Ganesh Devaraj, Dr. Y. V. Ramana Rao & Multiple

3.	18.06.2022.	one-day FDP on Array Signal Processing for RADAR Applications	Dr. N.Venkateswaran Dr. Srinivasarao Chintagunta, Mr. Ashok C,
4.	25.8.2022	IEEE SPS SB Inauguration at IIIDM, Kanchipuram	Prof. SC Dutta Roy Prof. Sumantra Dutta Roy
5.	17.10.2022	IEEE SPS Distinguished Lecture program on Artificial Intelligence in Medical Imaging	Prof. Erik Meijering, IEEE Fellow, IEEE SPS Distinguished Lecturer
6.	16-18.11. 022	3Day FDP on Signal Processing, Artificial Intelligence & Machine Learning in Biomedical Engineering	Dr. R. Yuvaraj Dr. Umarani & Multiple
7.	26 to 31.12. 22	One Week Faculty Development Program on Computational Intelligence - Algorithms and Implementation	Mr. K. Rajeshwar Rao Dr. V. Shanmuganeethi Dr. Malaya Kumar Nath & Multiple
8.	26.12.2022 to 30.12.2022	FDP on Recent Trends In 5G Communication Networks	Dr. A.Sivasubramanian Dr. M. Sangeetha, & Multiple

Technology and Engineering Management Society (TEMS)

Sl. No.	Event Date	Topic	Speaker Name
1.	25.02.22	National Technology Webinar – on Telecommunication Technology	Mr. Murali Madhavan, &Multiple
2.	07.05.22	Webinar on Machine Learning for Healthcare	Dr.Kirthika V
3.	07.05.22	Webinar on optimum Design of RF Spiral Inductors	Dr.J.Sathyasree
4.	11.05.22	National Technology Day Celebration	Mr. S. Kirupa Shankar, &Multiple
5.	17.05. 22	World Telecommunication and Information Society Day	Multiple Speakers
6.	20.08.22	Seminar on Robotics : An Overview & Scope of Research	Mr. Aditya Kameswara roa,
7.	22.10.22	Guest lecture on System Engineering Practices in Project Execution	Mr. Sundaresh Subramaniam
8.	17.11.22	Lecture on Robotics and AI for Industry 4.0	Mr. Sudharsan V
9.	19.11.22	IEEE MAS YP STEP 2022	Dr. Porkumaran Dr. Hariprakash & Multiple

Vehicular Technology Society (VTS)

Sl. No.	Event Date	Topic	Speaker Name
1.	17-11-2022	Inauguration of the IEEE VTS Madras Chapter & IEEE VTS Distinguished Lecturer's Talk on Self-Evolving and Transformative (SET) Protocol Architecture for 6G	Dr. Lin Cai
2.	24.11.2022	IEEE VTS Distinguished Lecturer's Talk on Massive Ultra-Reliable Low Latency Connectivity (mURLLC) in 6G	Dr Arumugam Nallanathan ,
3.	02.12.2022	IEEE VTS Distinguished Lecturer's Talk on Reconfigurable Intelligent and Holographic Surfaces for Wireless Communications	Dr Marco Di Renzo,
4.	05.12.2022	IEEE VTS Distinguished Lecturer's Talk on Space, Air, Ground Integrated Networking: From Single to Multi-Component Pareto Optimization	Prof. Lajos Hanzo,
5.	20.12.2022	IEEE VTS Distinguished Lecturer's Talk on Integrating Terrestrial and Non-terrestrial Networks: 3D Opportunities and Challenges	Dr Giovanni Geraci,

6.	23.12.2022	Technical Talk on IOT Applications : A walkthrough	Dr V.Lingasamy,
7.	26.12.2022 to 30.12.2022	IEEE VTS Madras Chapter Sponsored FDP on Recent Trends In 5G Communication	Dr. A.Sivasubramanian, Dr. M. Sangeetha,& Multiple speakers
8	30.12.2022	Technical Talk on Optical Switching Networks and Its Research Challenges	Dr L.Bharathi

B.3 Professional and Continuing Education Activities

Summary of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs with attachment table / information
Summary of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs with attachment table / information

Educational Activities

Faculty Development Program (FDP)

Sl. No.	Date	Topic	Venue (online)	No. of participants
1.	26-31.12.2022	Computational Intelligence – Algorithms	Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Chennai.	60
2.	21 – 22.12.2022	Smart grid Simulation	Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology , Chennai.	75
3.	26-30.12.2022	Recent trends In 5G Communication Networks	Sri Sai Ram Engineering College	274

FDP Report on Recent trends in 5G Communication Networks:

The Department of ECE in association with the IEEE Madras Section, IEEE VTS Madras Section Chapter , IEEE SPS Madras Section Chapter, IEEE SEC VTS SBC and IEEE SEC SPS SBC organized a 5 days hybrid mode Faculty Development Program on Recent trends In 5G Communication Networks from 26.12.2022 to 30.12.2022, 9.30am to 4.00pm through Zoom platform. The inauguration ceremony started with a Welcome address by Dr.S.Brindha, Convenor of the FDP & Chairman-VTS Madras section Chapter , the Inaugural Address by Dr. K.Porkumaran, Chairman-IEEE MAS and Special address by Dr J.Raja , HoD /ECE. The total number of faculties registered for this FDP is around 275 from all over Indian states. The speakers delivered most of the latest information about 5G communication technologies research work carried out in the field of antenna, RF ,Optical Communications, MM wave and hands session for Python Programming ,Optical simulation tools and HFSS. Good feedback and appreciation are received from the participants for almost all sessions. Technical sessions are handled by eminent personalities from prestigious Institutions & Industry like Dr M.Ganesh Madhan, Dr Siva Subramanian, Dr V.Nagarajan, Dr N.Venkateswaran,Dr S.Brindha , Dr V.Lingasamy , Dr Sangeetha, Dr Gulam Nabi Alsath, Dr P.Velmurugan, Dr T. Ilavarasan , Dr S. Bashyam and Dr Arunachala Perumal. More than 200 professional members from all zones of the India attended the FDP and the participants were presented with e-certificates.

Technical Meetings:

Sl. No.	Date	Topic	Speaker
1.	17th Nov 2022	Self-Evolving and Transformative(SET) Protocol Architecture for 6G	Dr. Lin Cai
2.	12-16 Dec 2022	IEEE Author Workshop	Dr. Periasamy Pradeed.R
3.	15th Dec 2022	Design of Solar System for you Home: Beginners	Dr. T.D. Subash
4.	21st Dec 2022	Information Technologies that Matter Most in2023 and Beyond	Dr. San Murugesan
5.	30th Dec 2022	Optical Switching Networking And its Research	Dr. L. Bharathi
6.	31st Dec 2022	Future Trends in VLSI Technology	Dr. Ranganathan Vijayaraghavan

B.4 Students Activities

- Total number of Student Branches in the Section - **165**
- Number of Student Branches formed in the current year – **2**
  - Bharath Niketan Engineering College
  - Saranathan College Of Engineering
- **Section level student activities:**

Student Development Program on Insight on Convolutional Neural Network :
IEEE Madras Section, IEEE Madras Young Professionals and IEEE Madras Women in Engineering conducted the 5 Days Student Development Program on Insight on Convolutional Neural Network during 07 December 2022 to 11 December 2022. Dr. T. Sree Sharmila, Chairperson, IEEE WIE Madras Section, Professor IR, SSN College of Engineering conducted the SDP. Topics covered during SDP are Introduction to CNN, Image Classification using CNN, Data Augmentation, Transfer Learning, RNN. Around 100 Students and Research Scholars participated in this program. Mr. Sreekanth R, Excom Member IEEE MAS YP coordinated the event.Mr. M.Arun, Chairman, IEEE MAS YP proposed the vote of thanks.

- **Number of active Student Branches : 107**
- Summary of Student Branch activities (Student Branch wise with attachment table/information)

Sl. No.	Name of the college	Date of the Event	Topic	Amount contributed
1	National Engineering College	6-7 Jan 2022	Machine Learning and Artificial Intelligence using MATLAB	20000.00
2	Sri Krishna College of Engineering and Technology	22nd April 2022	Technical Symposium KRISNECCS-2K22	15000
3	Dr.Sivanthi Aditanar College of Engineering	12-13 May 2022	CMOS Analog and Digital Circuit Design using Open Source Platform	15000

Sl. No.	Student Branch Name	Activities Link
1	Kalasalingam University	https://drive.google.com/file/d/1LX_7SXnDNJ973pg7MCys8DkoB3Lh9rP4/view?usp=share_link
2	Panimalar Institute College	https://drive.google.com/file/d/1uF3f7msclmqBu1_InUYyZLGEwHi1hT_7/view?usp=share_link
3	Sri Sairam Engineering College	https://drive.google.com/file/d/1nBN8smL-wUJOq6HytOIt0vT_k4CTJ8mZ/view?usp=share_link
4	Sri Sairam Institute of Technology	https://drive.google.com/file/d/1nBN8smL-wUJOq6HytOIt0vT_k4CTJ8mZ/view?usp=share_link
5	Kongu Engineering College	https://drive.google.com/file/d/1xp2WJvu8P0qPr1rUGESF8NSYbqLJ37o7/view?usp=share_link
6	Jeppaair Engineering College	https://drive.google.com/file/d/15FxH38DafBUmuCouKt9p5PVT2_ackAtr/view?usp=share_link
7	Thiagarajar Engineering College	https://drive.google.com/file/d/1FaGKH7Tg-26Umj1vyKTzZi5Haa6sScN-/view?usp=share_link
8	St. Joseph College of Engineering	https://drive.google.com/file/d/1msVll6dAToAPwUtoZhSpUOx1GjKxz8HX/view?usp=share_link
9	K. Ramakrishna College of Engineering	https://drive.google.com/file/d/1msVll6dAToAPwUtoZhSpUOx1GjKxz8HX/view?usp=share_link
10	Sri Krishna college of Engineering and Technology	https://drive.google.com/file/d/1J3mn5bkt1VHEK6WMqbL2aQjQSoXaz6Ws/view?usp=share_link

B.5 Affinity Group Activities

Women In Engineering (WIE)

Sl. No	Date	Topic	Speaker Name
1.	11.03.2022	Guest Lecture on LOVE THYSELF	Mrs. Vidhya devi Jayaprakash,

2.	18 – 25.06.2022	IEEE WIE Project Based Learning School Camp 3.0	Ramneek Kalra,
3.	19.11.2022	Women Entrepreneurship Day Celebration 2022 – Webinar on Public Speaking: The Game Changer for Your Business/Career	Ms. Bobbie Carlton
4.	7 – 11.12.2022	Student Development Program on "Insight on convolutional neural network"	Dr. T. Sree Sharmila,
5.	17.12.2022	Webinar on Beautiful Sequence – Kolam	Dr. R. Srinivasan,
6.	21.12.2022	Webinar on How to generate and validate startup ideas	Dr. N. Bhalaji,

Young Professionals(YP)

Sl. No.	Event Date	Topic	Speaker Name
1	13-14 Oct 2022	HACK-O-HOLICS 3.0	Mr. Eshwar R M Mr. R. Sreekanth Mr. Ashvanth B
2	22 Oct 2022	Research and Publication Writings and Tips	Dr. Saidur Rahman
3	26 Oct 2022	IEEE HAC and its importance for Societal Change	Dr. Hussain Mahdi
4	17 Nov 2022	Robotics and AI for Industry 4.0	Mr. Sudharsan V
5	19 Nov 2022	IEEE MAS YP STEP 2022	Dr. Porkumaran Dr. Hariprakash & Multiple
6	8 Dec 2022	Opportunities for Students and Young Professionals in IEEE	Dr. Adil Usman
7	10 Dec 2022	The World of Data	Mr. Kurtis Pykes
8	7-10 Dec 2022	5 Days Student Development Program on Insight on Convolution Neural Network	Dr. T. Sree Sharmila
9	30 Dec 2022	Optical Switching Networks and Its Research Challenges	Dr. L. Bharathi
10	31 Dec 2022	Future trends in VLSI Technology	Dr. Ranganathan Vijayaraghavan

Life Member (LM)

Sl. No.	Event Date	Topic	Speaker Name
1	29 Apr 22	Building Career through Right Education	Dr.Shashikant V.Albal
2	02 Jul 22	Non-tech Perspectives on Emerging Technologies Shaping our Future	Dr.San Murugesan
3	02 Sep 22	AI – Cyber Security Nexus: The Good and the Evil	Dr.San Murugesan
4	27 Oct 22	Engineering Strategic Systems	Shri. R. Muralidharan
5	19 Nov 22	Co hosting and sponsorship of IEEE YP STEP	Mr. Shyam,
6	23 Nov 22	Felicitation of Two LM achievers	Mr.N.Kumar,
7	22 Dec 22	1G,2G,5G, 6g and beyond The marvel of Mobile technologies An attempt to trace its phenomenal growth	S,V.Varadrajan,

B.6 Awards & Recognition Activities

- Award constituted by the Section

  Various awards have been distributed to encourage the student branches & societies to conduct more activities, cash awards & certificates of appreciation are being distributed every year at the Annual Meet.

  The selection of SBs for the awards is based on the parameters such as activities conducted, membership strength, reporting in the newsletter, website maintenance, society chapters in the SBs, awards, funding received, etc., Similarly, the Society Chapters and Affinity Groups are awarded based on their activity level, accounts submission, website maintenance, etc.

Awards will be given to different categories like Best Student Branch Counselor, Best Researcher, Best YP, Best WIE, Best Student Volunteer, Best Student Branch, Best Society Award, Life Time Achievement Award. 160 applications received

Sl. No.	Award Name	Winners name
1	IEEE MAS Best Branch Counsellor-2021	Mr.Aun M Panimalar Institute of Technology
2	IEEE MAS BEST YP AWARD-2021	Mr.Navaneethakrishnan Ramanathan. KPR Institute of Technology
3	IEEE MAS Best Wie Volunteer Award-2021	Ms. Dhanalakshmi G P Panimalar Institute of Technology
4	IEEE MAS Best Student Volunteer AWARD-2021	Ms. Lohitha Panimalar Institute of Technology
5	IEEE MAS Best Student Branch Award-2021	Panimalar Institute of Technology
6	IEEE MAS Best Researcher Award -2021 (Age 40 and Below)	Dr. Sandeep Kumar P
7	IEEE MAS Best Researcher Award-2021 (above 40 and Below 50):	Dr.S.Balakrishnan
8	IEEE MAS Best Researcher Award-2021 (above 50)	Dr. Shanthi Prince
9	IEEE MAS Best Society Chapter Of The Year-2021 Award	Antenna & Propagation Society
10	IEEE MAS Xtreme Best Team Award - 2022	Nutella: Vrishin Viswanathan Ainash Kartik, Joseph Amirtharaj
11	IEEE MAS Xtreme Best Proctor Award - 2022	Dr. S. Brindha Sri Sairam Engineering College
12	IEEE MAS Xtreme Highest Participants Count Award - 2022	Sri Sairam Engineering College

Awards Given to Student Branches

S. No.	Branch Code	Student Branch Name
1.	STB15181	Panimalar Institute of Technology
2.	STB64616	K. Ramakrishnan College of Engineering (Autonomous)
3.	STB 60551	Sri Sivasubramaniya Nadar College of Engineering
4.	STB60101	St. Joseph's College of Engineering
5.	STB09591	Vellore Institute of Technology, Chennai
6.	STB 29741	Kongu Engineering College
7.	STB14231	Panimalar Engineering College
8.	STB-03961	Sri Eshwar College Of Engineering
9.	STB28141	Thiagarajar College of Engineering
10.	STB60981	Sri Sai Ram Engineering College
11.	STB61491	Sri Ramakrishna Engineering College
12.	STB8101	Knowledge Institute Of Technology
13.	STB35301	SRM Institute of Science and Technology
14.	STB03109	Sri Sai Ram Institute of Technology
15.	STB-61261	Sri Krishna College of Engineering and Technology
16.	STB16181	St. Joseph's Institute of Technology
17.	STB05661	S.A. Engineering College
18.	STB 31061	Karunya Institute of Technology and Sciences
19.	STB60891	K.S.Rangasamy College of Technology
20.	STB 08161	Sri Shakthi Institute of Engineering and Technology
21.	STB61401	Dr.Sivanthi Aditanar College of Engineering

22.	STB03237	Kongunadu College of Engineering and Technology
23.	STB 28841	B.S.Abdur Rahman Crescent Institute of Science and Technology
24.	STB10241	RVS College of Engineering And Technology
25.	STB64283	RVS Technical Campus
26.	STB15541	Shree Venkateshwara Hi-Tech Engineering College
27.	STB64181	Francis Xavier Engineering College
28.	STB64273	Surya Engineering College
29.	STB65101	M.Kumarasamy College of Engineering
30.	STB62851	St. Xavier's Catholic College of Engineering
31.	STB64274	PPG Institute Technology
32.	STB64290	Vaigai College of Engineering
33.	STB14331	Gnanamani College of Technology
34.	STB15122	Hindusthan Institute of Technology
35.	STB11760	Mount Zion College of Engineering and Technology
36.	STB13211	SCAD College of Engineering And Technology
37.	STB99401	CARE College of Engineering
38.	STB34451	Kalasalingam Academy Of Research And Education
39.	STB62241	Mailam Engineering College
40.	STB29861	Mepco Schlenk Engineering College

Society/ AG Chapter award -2021

S. No.	Society / AG Name
1	Young Professionals
2	WIE
3	Computer Society
4	Antennas & Propagation Society
5	Photonics Society
6	Computational Intelligence Society
7	Technology and Engineering Management Society
8	Education Society
9	Product Safety Engineering Society
10	AES

SB Highest Membership -2021

Sl. No.	Student Branch Name	Total No. of members	Position
1	Sri Sai Ram Engineering College	393	I
2	St. Joseph's College of Engineering	233	II
3	Vellore Institute of Technology - Chennai	223	III

- Awards and Recognitions received by the Section, and members in the Section, from R 10 and IEEE HQ during the year

IEEE SAC AWARDS

IEEE Regional Exemplary Student Branch Award
   ❖ *Panimalar Institute of Technology*

❖ *Sai Ram Engineering College*

Darrel Chong Student Activity Award
- ❖ *Panimalar Institute of Technology*
- ❖ *Jeppiaar Institute of Technology*

IEEE Outstanding Branch Counsellor and Branch Chapter Advisor Award
- ❖ *Mrs. Benisha, Jeppiaar Institute of Technology*

IEEE MGA YP ACHIEVEMENT AWARD
- ❖ *Mr. Abdul Halik*

2022 SIGHT VOLUNTEER OF THE YEAR – HONORABLE MENTION
- ❖ *Dr. Darwin Jose Raju*

India Council Outstanding Volunteer Award

IEEE India Council Outstanding Student Volunteer Award – 2022
- ❖ **Mr. Mohamed Aashik S,** St. Joseph's College of Engineering, Chennai

IEEE India Council Outstanding WIE Student Volunteer Award – 2022.
- ❖ **Ms. Abinayaa Sri T,** St. Joseph's College of Engineering, Chennai

IEEE India Council Outstanding Student Branch Award – 2022
- ❖ **St. Joseph's College of Engineering, Chennai**

IEEE Computer Society IEEE Richard E. Merwin Scholarship
- ❖ Sridevi P - Panimalar Institute of Technology
- ❖ Dasa Saranya - Panimalar Institute of Technology
- ❖ Akshaya S - St Joseph's College of Engineering
- ❖ Priyanka J - St Joseph's College of Engineering
- ❖ Ulageshwari -S.A. Engineering College
- ❖ Anusha V - Jeppiaar Engineering College
- ❖ Shobana L -Jeppiaar Institute of Technology
- ❖ Niranjan Kumar S - Sairam Engineering College
- ❖ Swathi K - Sairam Engineering College
- ❖ Arangan Rishikesh T., St. Joseph's College of Engineering
- ❖ Ganesh U, Jeppiaar Engineering College
- ❖ Aadhithya Kailash, Sri Sivasubramaniya Nadar College of Engineering
- ❖ Bharathi Ramesh, Jeppiaar Engineering College
- ❖ Anupama Jeyashree S, Sri Sai Ram Engineering College
- ❖ NAVEEN PRASATH, Panimalar Institute of Technology
- ❖ Nandhitha K, Kongu Engineering College
- ❖ Dharini V K, Sri Sairam Engineering College

B.7 Communication Activities (Newsletter, Home Page, E-mail etc.)

- Newsletter (name and number of issues in the year)
  - Name: IEEE Mas-Link
  - Number of issues in the year: 6 issues (Two months once)
  - Web Link for Newsletter: https://www.ieeemadras.org/news-letter-2/
  - Email ID: ieeemaslink@gmail.com
- Home Page of the Section : https://ieeemadras.org

  Other means of contacts with Section members including social media : IEEE Madras Section office is in regular touch with all the members through the mail and by creating Listserv IDs for Members, Students, and other Student Branches. - The IEEE Madras Section website has been upgraded. There are login credentials for different modules set up in this system.

B.8 Industry Relations

- Membership growth and retention :
  This year, there has been a continuous increase in the number of professional members, and industrial contributions. We have requested.
- Activities for/with industrial members:

Many Events where conducted by Industry experts by section, section society chapters.

S.No.	Date	Topic	Speaker
1.	11.03.2022	Cloud Based Information Technology Solutions to MSMEs	Mr. S Vijay Venkatesh
2.	26.11.2022	Machine Learning Beyond Algorithms	Mr. M. A. Rajeev
3.	10.12.2022	Marketing in the Metaverse - Time to Explore, Experiment and Monetise	Mr Sunil David
4.	16.12.2022	Business Plan for Entrepreneurial Ventures	Ms. Sarada Ramani
5.	19 Nov 2022	IEEE MAS YP STEP 2022	Dr. Porkumaran, Dr. Hariprakash, & Multiple
6.	1 & 2 December 2022	Hands on Workshop on Understanding of Routing and Switching Concepts in Data Communication and Networking using CISCO Packet Tracer	Mr. V Tamilkumaran
7.	25.02.22	National Technology Webinar – on Telecommunication Technology	Mr. Murali Madhavan &Multiple
8.	11.05.22	National Technology Day Celebration	Mr. S. Kirupa Shankar &Multiple
9.	17.05. 22	World Telecommunication and Information Society Day	Multiple Speakers

B.9 Humanitarian Technology Activities

- **Humanitarian Technology related activities supported by the Section including collaboration with other OUs.**

IEEE WIE Project-Based Learning School Camp 3.0
A Collaborative Initiative by Ramneek Kalra (IEEE Impact Creator), WIE Madras Section, WIE Gujarat Section, WIE UP Section, and WIE Bombay Section AGs in association with IEEE TryEngineering Stem Portal, Youth for Sustainability, Junior Einstein Track (IEEE YESIST12-2022), Raspberry Pi, Bhumi Foundation and Infinite Engineers with utmost support of the Host Partner - Manav Rachna University, Haryana, India. In order to provide knowledge of the importance of pre-university education in the school students from Grade 8th to 12th, for the first time ever IEEE Women in Engineering Project Based Learning School Camp 3.0 is organized in Hybrid mode at Manav Rachna University, Faridabad, Haryana, India was held from 18th -25th June 2022 concentrating on the theme of "Sustainability Technology for Humanity".

SIGHT Activities:

Lecture on IEEE HAC and its importance for Societal Change by Dr. Hussain Mahdi on 26 Oct 2022

HAC/SIGHT Funding Received:

S. No.	Coordinator	Topic	Funded by	Amount
1.	Dr. Soma Prathibha Sri Sairam Engineering College, Chennai	Rural Solar Electrification Station	IEEE SPS & IEEE HAC Call for Proposals on Signal Processing Technologies for Local Community Challenges.	**4000$**
2.	Dr. S. Sasikala	An Intelligent System for	IEEE SPS & IEEE HAC Call	**2000$**

	Kumaraguru College of Technology, Coimbatore	Providing Natural Farming Solutions to Improve the Economy of Farmers	for Proposals on Signal Processing Technologies for Local Community Challenges.	
3.	Dr. S. Sasikala Kumaraguru College of Technology, Coimbatore	Bridging Digital Inequalities amongst the Urban and Rural School Students	2022 IEEE HAC/SIGHT Projects Call for Proposals Focused on Pressing Community Needs	**5000$**
4.	Dr. Uma Maheswaran S.K Sri Sairam Engineering College, Chennai	Hygiene Hydro	2022 IEEE HAC/SIGHT Projects Call for Proposals Focused on Pressing Community Needs	**3500$**

EPICS Funding Received:

Sl. No	College Name	Topic
1.	Sri Ramakrishna College of Engineering and Technology	Environment friendly and Efficient Honey Harvest Alert System for Bee Farms
2.	VIT, Chennai	Dreck Administration for Immaculate Purlieu Project
3.	Sri Sairam Engineering College, Chennai	Smart Fall Detection Tiles for Disabled People
4.	Sri Sairam Engineering College, Chennai	IOT based Smart assistant cane for the visually impaired
5.	Sri Sairam Engineering College, Chennai	Smart Outdoor Wheel Chair using IOT for the Paralyzed

B.10 Community Activities

IEEE Social activities:

IEEE Day Celebration: pg1

Women Entrepreneurship Day Celebration 2022

IEEE Women In Engineering, Madras Section celebrated Women Entrepreneurship Day 2022 in a prolific and dynamic manner. The celebration was to encourage women pursue their passion, career breaking the ceiling to become women entrepreneurs. With this objective in mind, IEEE WIE MAS initiated an objective instrumental session on Public Speaking: The Game Changer for Your Business/Career. To grab the attention of the aspirants with this topic, IEEE WIE MAS invited Bobbie Carlton, founder of Carlton PR & Marketing, Innovation Nights and Innovation Women, USA or, as she calls them, the day job, the night job and the dream job.The session commenced virtually on 19th November 2022 at 7 PM IST with a warm welcome to the dignitaries and attendees present. Following that, the attendees were given cognizance on what the session is all about and what will be their key takeaways. Posterior to this, Dr. Soma Prathibha, Vice Chair, IEEE WIE MAS welcomed the gathering with a cordial welcome. The session then moved to the most awaited part, Bobbie Carlton's talk on Public Speaking: The Game Changer for Your Business/Career. In the talk, she emphasized on public speaking, how it will be beneficial in an individual's life, how to balance professional and personal life, what are the points to be noted while speaking, how to inspire and motivate others with your talk and significantly others.
Bobbie Carlton kept the attendees engaged from the start till the end. This engaging talk came to an end with an interactive questionnaire session. To always look back to this session, the attendees clicked a group picture with the speaker. Ms. Pooja Sharma, Treasurer, IEEE WIE MAS felicitated the speaker and expressed her gratitude to the speaker and the attendees for taking time and attending this session and celebration of IEEE WIE.

PART C - OTHERS

C.1 Special Events

- Please briefly describe the importance of special events and the outcomes achieved

Sl. No.	Date	Topic	Outcome:
1	15.10.22	IEEE Student Branch Officers' Meet	Created awareness about IEEE Operations, Funding Opportunities, Scholarships, etc.,

- Funding secured from the IEEE and external sources including sponsorships -Nil

C.2 Relationship with National and International Societies and Non-Government Organizations (NGO)

- Nature of relationship and details of any formal agreement signed
  - IEEE Madras Section works in close collaboration with other Professional Society Chapters in Chennai. World Telecommunication Day was organized by the IETE center, Chennai, and was co-sponsored by IEEE Madras Section.
  - IEEE Madras Section also co-sponsored the programs organized by the Institution of Engineers (India), Chennai Centre.
  - Rupees 5000 have been distributed to perform various collaborative events within and outside the section
- Details of joint activities:

  IEEE Madras Section, IEEE Computer Society, and Computer Society of India, which is a National Professional Society jointly, organize programs of common interest like Object Computing.

  The benefit to IEEE members (for example discounts, access to technical information, etc.) – Discounts are given for IEEE Members for the programs conduced like FDP and Technical events
- Benefit to Section - Nil

C3. Collaboration with other IEEE Sections

- **Support extended to neighboring Sections**
  Sponsored Rs.25000/- to organize AISYWL Congress 2022 organized by Pune section.
- Joint activities with any other Section - NIL

C.4 Support extended to Sub-sections & Society Chapters within the Section

- **Support extended for organizing technical, educational and professional activities**

  - ❖ Funds provided to society chapters & affinity groups
  - ❖ Several collaborative events conducted within society chapters & affinity groups.
  - ❖ During Annual Meet (AM), every year, cash awards and appreciation certificates are awarded to the active Society Chapter based on the activities conducted.
  - ❖ Appreciation certificates were given to Societies Chapters of the section. These awards were distributed during the Annual Meeting, to motivate the Section societies to perform better. It resulted in the enhancement of Society Chapter performance.
- **Support extended for the formation of a Sub-section or transition of a Sub-section into a full Section: Nil**

C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)

- For students, engagement, and to progress their knowledge, UpSkill and MAS-E tech symposium was accomplished.
- Conducted student Training programs for students' community and enhanced the student membership of the section.
- Regular Faculty Development programs in different locations in the state to benefit a good number of faculty members.
- The Student project funding for undergraduate students.
- Technical Support and sponsorship by the section to the student branches for various technical programs like Conferences, Workshops, Seminars, Symposia, etc., for the improvement of Quality of the technical activity in the student branches.
- Community outreach program to mold better youth of the country.
- Technical Lecture series organized by the technical society chapters.
- Communication and personality development programs are organized by the section.
- Recognition & Awards during Annual Meet to active student chapter and technical societies.
- Award to the authors who have published papers in IEEE Journals.

C.6 Problems anticipated and suggestions for solutions, if any
- Retention of Student members is one of the major issues faced by the section,
- Steps have been taken in the form of organizing webinars on IEEE Membership benefits and by enhancing the Student branches to conduct more technical events.
- To increase in professional members on account of increase in members subscription

PART D - GOALS AND PLANS

D.1 Continuation of project/activity in progress and their implementation plans

1. The funding for the student project proposal is continuous every year in order to enhance the technical competencies of the students.
2. To conduct more membership development programs to improve student and professional memberships.
3. A Project exhibition contest is planned to identify creative and innovative proposals and implement of strategy for further improvement.
4. Planning to organize more Faculty Development Programs in order to increase the number of beneficiaries. This will improve the quality of teachers and improve the teaching-learning process as a whole.
5. More Student Training Programs based on the demand from members.
6. Organization of conference organizers workshop to equip the institution leadership to organize good clarity conference.
7. To conduct Industry related and Entrepreneurship programs.

D.2 Goals and Future Plans
1. To geographically spread the technical activity organized by the section, the society chapters, and affinity groups.
2. Plan to organize the Membership awareness programs in the connected places.
3. To make the activity more student-centric such that the future Engineers are more competent in all Endeavors.
4. To take the technical knowledge and state-of-the-art technology to the rural parts as well. To create awareness about Science and Technology at the school level.
5. To organize workshops on advanced health care for a better quality of life.
6. To increase the chapter membership and senior membership Programs
7. To coordinate with industries for a better student branches industry connect.
8. Organize industrial visits for IEEE student members.
9. Organizing webinars on emerging technologies.

D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.

1. To conduct more membership awareness programs.
2. Planning to circulate IEEE months newsletter to all the educational institutions who are not part of IEEE even if no IEEE Student Branch is functioning.
3. Recognition of outstanding professionals and volunteers
4. To conduct the Membership drives in industries.
5. Student Branch Leadership Enhancement & Development Drive has been conducted to make inactive SBs into dynamic SB.

D.4 Business Plan for Sustainable Growth and Financial Stability. Nil.