

# Region 10 Madras Section Report

## PART A - SECTION SUMMARY

### A.1 Executive Summary –

IEEE Madras section is one of the vibrant sections in India, which is seen from the membership growth and the various activities conducted. In the year 2020, section conducted R10 sponsored panel of conference organizers workshop, R10 sponsored membership development and leadership training programs, three faculty development programs and three students training programs. Apart from that a number of webinars were also conducted for the benefit of the members. Student branches and Societies have also conducted many events through online. Funding was given to four selected student project teams to develop the product. As a new initiative, section rebate was given to 43 student branches.

### ❖ Section Executive Committee Member List

Sl.No.	Name	Position
1	Dr. N. Kumarappan	Chairman
2	Dr. P. A. Manoharan	Immediate Past Chair
3	Dr. R. Hariprakash	Vice Chairman (academic)
4	Dr. R. Ramarathanam	Vice Chairman (Industry)
5	Dr. D. Devaraj	Secretary
6	Dr. S. Joseph Gladwin	Treasurer
7	Dr. R. Venkatesan	Member
8	Dr. N. Nithyavathy	Member
9	Dr. D. Nirmal	Member
10	Dr.R.G. Sangeetha	Member
11.	Dr. S. Thangaprakash	Member
12.	Dr. M. Venkateshkumar	Member
13.	Dr. K. Vijayakumar	Member

### ❖ Section Highlights

#### ➤ IEEE Day 2020:

The IEEE Madras Section organized IEEE Day 2020 on 18th October 2020. The events was hosted by Sri Ramakrishna Engineering College, Coimbatore. 125 participants attended this on-line event. The program started at 9 a.m. with invocation song sung by H. Sreeja, II/ECE/SREC. After the invocation, the cultural events were performed by the Fine Arts Club members of Sri Ramakrishna Engineering College. Dr.N.Kumarapan, Chair IEEE Madras Section presented the welcome address and shared the activities conducted contributions and funding by IEEE. The Madras Section congratulated all members for achieving the membership retention development award 2020. The chief guest of the day was Dr. S K Ramesh, Professor of Electrical and Computer Engineering at California State University, Northridge USA, Director of the AIMS, ABET Board of Delegates. He shared his views about the abundant opportunities provided by IEEE. He addressed the need for humanitarian-based projects and solutions for society's needs by engineers. To know more about IEEE a session by Dr.M.Ponnaivaikko, Former Vice-Chancellor, Bharathidasan University, Trichy and SRM University, Chennai, Former Chairman, IEEE Madras Section, and India council was organized. He shared how IEEE helps one to groom and grow professionally and socially. To provide awareness about the best practices and opportunities in IEEE a session by the guest speaker Dr.N.R.Alamelu, Principal of Sri Ramakrishna Engineering College, Coimbatore, Former Chairperson, IEEE Madras Section was arranged. She emphasized more on collaborative learning, out of box thinking, multidisciplinary working. The Award ceremony took place around 10.45 am, where all the recent awardees were recognized and membership retention awardees were awarded. They were asked to share a few words about their success secret with the participants. We had an online quiz hosted by Aravindhan Anbazhagan, Tech Academician, TEDx speaker, Founder of Edurise Global, Chair IEEE Madras Young Professionals to have a deeper look into the history of IEEE. The quiz was power-packed and around 50+ participants participated. Finally there were seven video presentations by various IEEE Student Branches stating the various events organized and hosted by them. Dr.K.Balamurgan, IEEE SB Counselor, Sri Ramakrishna Engineering College proposed the vote of thanks and thanked everyone who worked hard for this IEEE Day.

➤ **IEEE Student Branch Officers' Meet:**

The Department of EEE and IEEE SRM Valliammai Student Branch hosted “IEEE Madras Section Student Branch Officers Meet (SBOM) -2020” on **7th November, 2020** through Microsoft Teams [online mode] for all the IEEE members (Ex-com members, senior professional members, branch counselors, student members and other participants). Dr.N.Kumarappan (Chair & Chair-SAC, IEEE Madras Section) delivered the welcome speech and Chief Guest Mr. Deepak Mathur (Director-Elect, IEEE Region 10 Asia-pacific) inaugurated the function. He provided his widespread knowledge on importance of IEEE and its reach, its technical breadth, organizational governance, provided information about IEEE Region 10 and how it combated to the crisis of covid-19 and gave more information on the community outreach program.

Followed by inauguration, various sessions were conducted by eminent guest speakers. “Volunteering with IEEE” by Mr.S.Nandan- Chair-SAC, IEEE Kerala Section Mr. He gave a huge perspective on the vast opportunities for IEEE volunteers and how community service and volunteering can build an individual’s confidence to step forward and meet new people through IEEE Collabratek and other means. He also constantly reminded about IEEE’s motto-“Advancing technology for Humanity”. IEEE Student Membership Awareness and Benefits by Dr.N. Kumarappan- Chair & Chair-SAC, IEEE Madras Section. He gave us the outlook of IEEE’s vision- To advance global prosperity by fostering technological innovation, promoting IEEE communities worldwide, enabling member’s careers etc. Also provided valuable information about the importance of IEEE Membership, its benefits, various scholarships and how to apply, IEEE Spectrum and other IEEE journals, branch activities. Word Press Web Designing by Mr. B. Ashvanth- Systems Engineer at TCS, Treasurer, IEEE Madras Young Professionals .Mr. Ashvanth imparted knowledge about how to design one’s own student branch portals and IEEE blogs with the help of Word Press, various creative ideas about how to design your own website or blog. Ice Breaking Activity- Virtual Treasure Hunt by Mr. M. I. Abdul Halik- Executive Committee Member,

IEEE Madras Young Professionals Mr. M. I. Abdul Halik and team conducted a very interesting quiz competition with IEEE as the background. It helped one test their depths of knowledge in IEEE and was indeed an ice breaking activity. IEEE Student Branch Best Practices were also displayed which showed the calibre and hard work of IEEE Student Branches of SSN College of Engineering, Chennai, Vellore Institute of Technology, Chennai .St. Joseph’s Institute of Technology Chennai .The event was concluded in the valedictory session by Dr. K. Elango, IEEE Senior member, Head of the Department, EEE, SRM Valliammai Engineering College by extending vote of thanks.

➤ **New initiative by the section:**

As a new initiative, IEEE Madras section has granted "Section Rebate Award" for the 43 active Student Branches to strengthen their student’s activities in order to increase the student members and professional members and to enhance their Student Branch from COVID-19 pandemic situation.

➤ **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. 46 different project proposals were received and the proposals were scrutinized by the member review committee of the relevant specialization and based on the recommendation by the committee, 21 project proposals were short listed. The presentation and demonstration of these projects was held in the month of April and the following best projects have been funded.

**IEEE Madras Section Student Project Funding(SPF- 2019–20)**

S.No.	Project Title	College / Student Names Mr. / Ms.	Name of the Students / IEEE membership No.	Amount in (Rs.)
1	IOT Enabled Design And Fabrication Of Wheelchair Cum Stretcher With Patient Monitoring And Home Automation	S.A. Engineering College	1   Janani.R   95037491	10,000
			2   Keerthana.T.R.S   95062729	
			3   Reena Joseline.A   95185424	
			4   Prasanna Krishnan.P   95369713	
2	3 IN 1 AGROBOT,(Smart Seed Sowing Machine)	Bannari Amman Institute of Technology	1   Bhuvanesh S   94840522	10,000
			2   HariPrasath M   95453075	
3	Detection of Lung diseases using breathing rate analysis	SSN College of Engineering	1   Chetana Krishnan   95459912	5,000

4	Smart Insole: Unobtrusive vitality monitoring System	St. Joseph's Institute of Technology				
			1	Aruna krishnan	94832838	3,000
			2	Christy Kingsly	94832872	

➤ **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 have been defined for such Financial Assistance is based on the budget and number of members the available in each branch. During the year 2020, 11 such programs have been extended financial support to the tune of Rs. 1,1,41,500/-.

➤ **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 at different parts of Tamil Nadu. During the year 2020, 3 such programs were organized and the summary is given below:

Sl.No.	Date	Topic	Venue (online)	No. of participants
1.	May, 6-9 2020	Electric Vehicle Technology	IEEE Madras Section	149
2.	Aug, 26-29, 2020	Deep Learning Networking and its Applications	Kalasalingam Academy of Research and Education	53
3.	Dec, 17-14, 2020	Control and Stability Aspects in Microgrid	SRM Institute of Science & Technology	65

**Section Technical Chapter:**

IEEE Madras Section has 26 Technical Society Chapters and 3 Affinity Groups. The tables below indicate the Technical Society Chapters, Affinity groups Chairpersons:

**Technical Society Chapters:**

Sl 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. Sheila Anand, Vice-Chair
5	Communications (COMSOC)	Mr. P. Subramanian
6	Computational Intelligence (CIS)	Dr. N. Kumarappan
7	Control Systems (CSS)	Dr. R. Hariprakash
8	Engineering in Medicine & Biology (EMBS)	Dr. K. B. Jayanthi
9	Electron Devices (EDS)	Dr.Ajayan
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)	Dr. S. Rajavel
14	Information Theory (ITS)	Dr.V.Gomathi
15	Instrumentation and Measurement (IMS)	Dr. V. Jagadeesh Kumar
16	Microwave Theory and Techniques (MTTS)	Dr. V. Abhaikumar
17	Nano Technology Council (NTC)	Dr Madheswaran
18	Power and Energy (PES)	Dr. R. Sarathi
19	Power Electronics (PELS)	Dr.R.Seyezhai
20	Product Safety Engineering (PSES)	Dr. R.Dhanasekaran
21	Professional Communication (PCS)	Dr. E. Kannan
22	Photonics (PS)	Dr. C. Arunachalaperumal
23	Robotics and Automation (RAS)	Dr.Vinod B
24	Social Implications of Technology (SITS)	Mr. R. Navaneethakrishnan
25	Technology and Management Society (TEMS)	Dr. Kulanthaivel
26	Signal Processing (SP)	Dr.S. Salivahanan

## Affinity Groups

Sl.No.	Affinity Group Name	Chairperson
1.	WIE Affinity Group	Dr. N. Nithyavathy
2.	Young Professionals	Mr. A. Aravindhan
3.	Life Members	Mr. C.R. Sasi

### ✓ Motivational Award

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 maximum number of members are also honored during the AM. During the last year, appreciation certificates were given to 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 enhancement of higher level performance of the student branches.

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The following awards were given to Student Branches to Motivate the Members:

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✓ Student Branches conducting more number of activities.

✓ The Student Branch having maximum number of members, award given to top three colleges

### ➤ IEEE Section Newsletter

MAS LINK, the newsletter of Madras Section is being published quarterly as a eNewsletter, It is circulated to all the members of the section including student members. Each issue is uploaded in the IEEE Madras Section web site in order to reach more number of members around and to add more information. The newsletter includes the following:

1. Chairman's Message
2. Editor's Column
3. Activities reported by the various branches of the section to encourage for better performance.
4. Activities reported by the various Society Units.
5. Announcements and reporting regarding the Conferences, Workshops, Seminars, Symposia, etc., coordinated by the Technical Society Chapters and student branches functioning in various institutions.
6. Achievements of professional members.

### ❖ Major Events (International, National)

#### ➤ 2020 IEEE MINI POCO (Panel of Conference Organizers)

IEEE Madras Section has organised IEEE R10 sponsored "POCO 2020" on **10<sup>th</sup> and 11<sup>th</sup> October 2020** through Virtual Mode. This event was conducted for the benefits of the IEEE Members, Volunteers, Academicians and Industrialists who are interested to conduct quality IEEE Conference, by understanding the IEEE Conference Policies. The event comprised of key note sessions by senior IEEE officials and experienced Conference organizers. The Inaugural function was conducted on October 10<sup>th</sup> at 2.00 pm. Dr.D.Devaraj, Secretary, IEEE Madras session welcomed the gathering. Dr.N.Kumarappan, Chair, IEEE Madras section delivered the Presidential Address. The chief guest for the event was Dr.Sri Niwas Singh, Chair, IEEE India Council and Professor, IIT Kanpur. In his inaugural address Dr. Singh stressed the importance of educating the conference organizers in maintaining the quality. Dr. S. Joseph Gladwin, Treasurer, IEEE Madras Section proposed the vote of thanks. I the first day, there were three sessions. The speaker for the first session was Dr. T. Thyagarajan, Dean, MIT, Anna University and he gave a presentation on "Key Issues and Challenges in Organizing IEEE Conference". Next session was handled by Dr. Amit Kumar, Chair, IEEE Hyderabad Section on "Technical Program overview". The last session of the first day was handled by Dr.N.Kumarappan, Chair, IEEE MAS on "Publications in IEEE Conference and Journals". In the second day, Mr.Puneet Kumar Mishra, Secretary, IEEE India Council gave a presentation on the topic "Financially Co-sponsored Conference and Conference Success Stories". The next session was handled by Dr.D.Devaraj, Secretary, IEEE MAS and he gave a presentation on "Planning an IEEE Conference and Conference Proposal Submission". Finally, an interaction session on "TCS fee payment and Conference Approval" was handled by Dr.S.Joseph Gladwin, Treasurer, IEEE –Madras Section. Fifty six members have attended the event and it has provided a platform to get trained and to gain knowledge about how to conduct a well organised IEEE Conference.

The participants have given a good feedback about the event and they mentioned that, it was really beneficial. The Valedictory function was conducted at 4.00 PM. Ms.Sarada Jayakrishnan, Chair, IEEE Kerala Section delivered the

valedictory address in the valedictory function. Dr.N.Kumarappan, Chair,IEEE MAS Section delivered a special address. Dr.D.Devaraj, Secretary, IEEE MAS, delivered the vote of thanks and the event concluded at 4.30 pm.

### ➤ **R10 Membership Development and Leadership Training Insight Program 2020:**

IEEE Madras Section in association with IEEE R10 organised an IEEE Leadership Insight Program during 12 – 13, September 2020. Due to Covid-19 pandemic, the program was organized virtually. There were around 50 participants from various institutions across Tamil Nadu who attended this two days leadership program. The program was inaugurated by Dr. N Kumarappan, Chairman, IEEE Madras Section followed by his inaugural address, Dr. N Kumarappan highlighted the importance of leadership in the students for the future.

Day 1 (12.09.2020) comprised of three sessions. In the first session, Mr. Vidya Shankar G, Founder and CEO, Only Success Academy shared his experience on “How to build up a professional career and stories behind success”. He motivated students that the failure is one which makes us learn how to become successful and with more failures we are closer to achieving success. In the second session, Mr. Harish Bharadwaj, CEO, HUM Consulting delivered a talk on “Creative thinking and Decision Making”. The session was very interactive and gave the audience a different experience. He gave the participants a deep insight about creative thinking and also explained the major role of decision making in every field and how a wrong decision can affect everyone. He clearly mentioned the steps to be followed before making any decisions. In the third and last session of day 1, Mr. Charles, ZOHO HR Leader & Public Speaker, delivered a talk on “Smart Work”. He explained how problems could be solved using smart work and shared his life experiences. He highlighted the difference between smart work and hard work and why smart work is preferred by companies than hard work.

Day 2 (13.09.2020) comprised of three sessions. In the first session Dr. Kumarappan N, Chairman, IEEE Madras Section delivered a talk on “Awareness For Student And Professional Members”. He shared his experience as an IEEE Member and gave a deep insight about roles and opportunities for a IEEE Member. He also spoke about the wide range of awards which IEEE offers and explained how the membership should be used in various ways. In the second session, Dr. Preethi Bajaj, Vice Chancellor, Galgotias University gave a deep insight on “Roles in IEEE after graduation”. She explained how the membership cycle works and the various types of memberships available for the students as well as the professional community. She also mentioned the various roles for an IEEE member even after graduation and also explained about the benefits of each member category.

In the third and last session of day 2, Mr. Madhav Negi, Architect-Office of account CTO, DXC Technology India, delivered a talk on “How to be a better Leader?”. He explained the difference between just being a leader and being a better leader. He also gave an insight to the participants on how to develop the leadership skills and how to analyze the problem before acting. At last, the program ended with the vote of thanks delivered by Dr. N Kumarappan, Chairman, IEEE Madras Section.

### ➤ **IEEE WIE International Leadership Summit 2020**

With COVID – 19 everywhere, the virtual platform gave the International Leadership Summit ILS team comprising of Dr.Ramalatha Marimuthu, Chair WIE ILS Coimbatore 2020, Dr. N. Nithyavathy, Chair WIE Madras section to bring forth countless innovative virtual ideas for IEEE WIE International Leadership Summit 2020. IEEE WIE ILS was successfully organized by the IEEE Madras Section in collaboration with IEEE Pune Section virtually on the dates, 5<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup> December, 2020 with the aid of WebEx platform. The summit was inaugurated by Dr. Lisa Lazarek Asunta, Chair – IEEE WIE Committee 2020 alongside many outstanding IEEE leaders. The summit was segregated into three main tracks namely Inspire and Lead track fixated to inspire women to overcome barriers and pursue their dreams based on their interest, Educate and Empower track, aimed to embolden all the returning mothers and women wishing to further their studies, to work in the direction of their dreams and Encourage and Engage track focused on women who wish to realize their dream of creating something on their own. Apart from these tracks, ILS included networking tours and panel discussion giving the participants a mixture of all. The summit witnessed prominent speakers globally such as, Ms. Lisa Mohanthy, Ms. Lucy Craig, Ms. Emi Yano, Prof. Bozena Pasik Ducan and far more preeminent leaders. Encompassing several Easter eggs in each session, the engagement of the participants was high throughout. The summit built up a strong base as a platform leveraged by the delegates to showcase their forte. The plaudit that the team have received from the esteemed IEEE dignitaries, senior leaders, IEEE representatives, professionals, speakers and participants is a true felicity.

### ➤ **12 National /International Conferences organized by the student Branches in different Engineering Colleges and Chapters of the IEEE Societies were co-sponsored by the Madras Section.**

Sl.No.	Conference ID	Name of the conference	Conference Date	Host Institution
1	50826	International Conference on Computer Communication and Informatics	January 27-29, 2021	Sri Sakthi Institute of Engineering and Technology
2	51510	Seventh International Conference on Electrical Energy Systems - 2021 (ICEES-2021)	February 11-13, 2021	Sri Sivasubramaniya Nadar College of Engineering
3	50930	2021 International Conference on Artificial Intelligence and Smart Systems (ICAIS)	March 25-27, 2021	JCT College of Engineering and Technology
4	50816	6th International Conference on Inventive Computation Technologies (ICICT)	January 20-22, 2021	RVS Technical Campus
5	51019	5th International Conference on Computing Methodologies and Communication	April 8 -10, 2021	Surya Engineering College
6	50876	Third International Conference on Intelligent Communication Technologies and Virtual Mobile Networks	February 4-6, 2021	Francis Xavier Engineering College
7	52121	2021 Fourth IEEE International Conference on Electrical, Computer and Communication Technologies (IEEE ICECCT 2021)	February 24-26, 2021	Velalar Engineering college
8	51430	7th International Conference on Advanced Computing and Communication Systems (ICACCS 2021)	March 19-20, 2021	Sri Eshwar Engg college
9	51350	6th International Conference On Communication And Electronics Systems	July 8-10, 2021	PPG Institute of Technology
10	51604	4th Conference on Information & Communication Technology (CICT) 2020	December 3-5, 2020	Indian Institute of Information Technology, Design & Manufacturing
11	51692	6th edition of the International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET) 2021	March 25-27, 2021	Sri Sivasubramaniya Nadar College of Engineering
12	51839	Seventh International Conference on Bio signals, Images, and Instrumentation (ICBSII 2021)	March 25 -27, 2021.	Sri Sivasubramaniya Nadar College of Engineering

## Major Chapter Activities

### ✓ Chapter Activities

Sl.No.	Society Name	No. of Meetings Conducted
1.	Aerospace and Electronic Systems (AES)	2
2.	Antennas and Propagation (APS)	11
3.	Computational Intelligence (CIS)	5
4.	Control Systems (CSS)	3
5.	Engineering in Medicine & Biology (EMBS)	6

6.	Education (ES)	4
7.	Geoscience and Remote Sensing Society	4
8.	Power Electronics (PELS)	4
9.	Photonics (PS)	6
10.	Robotics and Automation (RAS)	9
11.	Technology and Management Society(TEMS)	16

## ❖ Major Student and Affinity Group Activities

### ✓ Student Activity:

- Student Branch officer's meet
- Technical Lectures different region of section: In order to have more student centric participation, from technical lectures were conducted in different cities by the section, technical and student activities committee.
- 3 Student Training Program
- Student Project Funding

### ✓ Affinity Group Activities:

Sl.No	Affinity Group Name	No. Of Activities
1.	Young Professionals	16
2.	Women In Engineering	14
3.	Life Members	1

### ✓ Awards :

## A.2 Financial Report –

### ➤ Summary (submitted on NetSuite) :

#### ➤ Any other financial activities

- ✓ Project funding for the students
- ✓ Funding given to organize Faculty Development Programs
- ✓ Funding given to conduct Technical Lectures
- ✓ Funding received from R10 IEEE R10 POCO
- ✓ Sponsorship of Rs. 15,000 given to AISYWC 2020, Delhi.

## PART B - ORGANIZATIONAL ACTIVITIES

### B.1 Membership Development Activities

#### ➤ Total number of active members in the past 3 years.

The details of Membership as on 31<sup>st</sup> Dec 2018, 2019 and 2020 are given below:

	<u>31<sup>st</sup> Dec 2018</u>	<u>31<sup>st</sup> Dec 2019</u>	<u>31<sup>st</sup> Dec 2020</u>
➤ Life Fellow	0	1	1
➤ Fellow	5	4	4
➤ Life Senior	15	16	20
➤ Senior Members	271	346	381
➤ Life Members	7	8	9
➤ Members	2092	1914	1748
➤ Affiliate Members	18	16	19
➤ Associate Members	70	43	25
➤ Graduate Student Members	647	582	530
➤ Student Members	5056	3965	3659
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<b>Total Membership</b>	<b>8181</b>	<b>6895</b>	<b>6396</b>
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## B.2 Chapter Activities

- Total number of Chapters in the Section : 26
- Number of Chapters formed in the current year : Nil
- Number of active Chapters : 11

### ➤ Summary of Chapter activities (Chapter wise with attachment table/information)

#### Aerospace and Electronic Systems Society

Sl. No.	Event Date/s	Topic	Resource Persons
1	11.12.2020	Technical Talk on Problem Solving Ideation	Dr.Muthumanickam Thangavelu
2	23.10.2020	Seminar on Intellectual Property Rights in India	Dr.Sheela Thangarajan

#### Antennas and Propagation Society

Sl. No.	Event Date/s	Topic	Resource Persons
1	07 <sup>th</sup> March 2020	National Workshop on Women in Antenna Engineering	Multiple
2	6 <sup>th</sup> August 2020	Webinar on “Concepts of array antennas for Radar Applications”	Dr. .P. Ray, DIAT, Pune
3	14-19 August 2020	IEEE Lecture Series on “Future Antenna Technologies”	Multiple
4	7-12 Sept. 2020	IEEE Faculty Development Programme on “Trends in Antennas”	Multiple
5	18 Oct. 2020	Webinar on “Future Flexible Electronics – Flexible Antennas”	Dr Shanmuga Sundhar
6	10 <sup>th</sup> Oct. 2020	Webinar 1.0-“5G Millimeter-wave Antennas”	Dr. Aakash Bansal
7	20 <sup>th</sup> Oct. 2020	Webinar 2.0 – “RF sensing of Low RCS Aerial Target”	
8	24 <sup>th</sup> Oct.2020	Webinar 3.0 – “EBG structure and their applications for Antenna design”	Dr. Taimoor Khan
9	31 <sup>st</sup> Oct.2020	Webinar 4.0 - Design and research challenges of Satellite Antennas	Dr. V. Mahadevan
10	7 <sup>th</sup> Nov.2020	Webinar 5.0 – “Planar Transmission line for Antenna Applications”	Prof S. Raghavan
11	14 <sup>th</sup> Nov. 2020	Webinar 6.0 – “Antennas for Space Applications”	Dr. Surendra Paul

#### Computational Intelligence Society

Sl. No.	Event Date/s	Topic	Resource Persons
1	28,29 Sept2020	International Conference	Multiple
2	26th June 2020	International Seminar	Multiple
3	19 <sup>th</sup> May 2020	Interdisciplinary projects in assistive technology engineering	Dr S K Ramesh
4	25 <sup>th</sup> May 2020	AL/ML Advancements and Potential Applications	Mr Mukund Kannan



5	16 <sup>th</sup> Dec 2020	Intelligence unit commitment with vehicle to grid using hybrid optimization technique.	Dr N Kumarappan
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### Control Systems

Sl. No.	Event Date/s	Topic	Resource Persons
1.	22 <sup>nd</sup> Feb 2020	IEEE TEMS Industrial Forum on Future of Technology Management	Mr. Rajendran Dandapani,
2.	29 <sup>th</sup> Dec 2020	Technical Lecture Understanding key concepts of Electric Circuits”	“Prof S.Muthukumar,
3.	28 – 30 May 2020	Faculty Development Program on Understanding Data Analytics with Real-Life Cases	Multiple

### Education

Sl. No.	Event Date/s	Topic	Resource Persons
1	23/05/2020	Guest lecture on Time to Reform us	Ms. Adlin Viji
2	25/07/2020	Guest lecture on IEEE in Real Life	Er. SHARATH B
3	04/07/2020	Guest lecture on Role of Engineers in Humanity	Ms V Evangelin, & Ms J P Reshma
4	10/10/2020	Webinar ML for Beginners	Mr Ghanshyam Chodavadiya

### Engineering in Medicine and Biology

Sl. No.	Event Date/s	Topic	Resource Persons
1.	20 <sup>th</sup> Jun 2020	Webinar On Endoscope - Structure And Maintenance Of Olympus India	Mr. Yogesh Shukla & Mr. Koyal Adlakha
2.	8 <sup>th</sup> Aug 2020	Role Of Imaging Systems In Medical Diagnosis	Dr. A. Murugesan, Janson’s
3	29 <sup>th</sup> Aug 2020	Application Exploration Of Iot In Covid -19 Challenge	Mr. K.Raguvaran
4	22 <sup>nd</sup> Dec 2020	DESIRE – A Personality Development Program	Dr. K.A. Agalya
5	26 <sup>th</sup> Dec 2020	Current Trends In Medical Image Analysis	Dr. Vimal
6	28 <sup>th</sup> Dec 2020	Biomedical Engineering Innovation Generation For Healthcare Democratization	Prof. Michael Friebe

### Geoscience and Remote Sensing

Sl. No.	Event Date/s	Topic	Resource Persons
1	24-12-2020	Webinar On Geo-Spatial Application In Precision Forestry	Dr. M. Muneeshwaran
2	18-11-2020	Webinar On Machine Learning Techniques And Image Processing	Dr. T. Senthilkumar
3	15-06-2020	International Webinar On Spatially Enabling United Nations Sustainable Development Goals	Dr. Zaffar Mohamed-Ghouse
4	08-06-2020	International Live Webinar On 3D GIS	Dr. Elżbieta Lewandowicz

### Power Electronics Society

Sl. No.	Event Date/s	Topic	Resource Persons
1	30 <sup>th</sup> Nov 2020	Workshop Reliability Analysis of Photovoltaic Impedance Source Inverters	Dr.M.Sujatha & Dr.D.Umarani
2	19-21.Nov 2020.	Workshop Machine Learning Applications for Power Engineers	Multiple
3	20-21, Feb2020	Two Days Workshop on PCB Design and Circuit Design for Power Converters	Dr. V.T. Sreedevi Prof. Nilanjan Tewari Dr. Meenakshi
4	29 <sup>th</sup> June .2020	Technical Talk Smart Grid Protection System	Dr. K. N. Dinesh Babu

### Photonics Society

Sl. No.	Event Date/s	Topic	Resource Persons
1	25.4.2020	Essential Tips for Publishing in High Impact Journals	Dr.M.Venkateshkumar
2	12.05.20	Webinar on Image processing and its applications	Mr.J.Joshan Athanesious
3	26.4.2020	Volunteering with IEEE	Ms.M.Aathira
4	03.05.2020	Exploring Student Branch Activities	
5	08.08.20	Webinar on Gear up for IEEE Extreme 14.0 Global Challenge	Abdul Halim
6	20.12.20	Quiz on Light & Shadow- A Quiz Event	

### Robotics and Automation

Sl. No.	Event Date/s	Topic	Resource Persons
1.	21-22.02.2020	National Conclave on Industrial IoT, Renewable Energy and Machine Learning	Multiple
2.	03-07.08.2020	FDP Augmented Reality	Mr. K. R. Vijayarajan
3	23.04.2020	An Overview on augmented and virtual reality	Mr. K. R. Vijayarajan
4	02.06.2020	Technical talk on Surgical Robot	Mr. Aravinthkumar Thangavelu
5	03.06.2020	Technical talk on Robotic Process Automation for manufacturing management	Mr. B. Prasanna
6	04.06.2020	Technical talk on Industrial Automation	Dr. C. Maheswari
7	05.06.2020	Technical talk on Robotic Principles and Application	Mr. Balaji Thiru & Dr.Sagunthala
8	06.06.2020	Technical talk on Practical approach towards Autonomous Systems	Mr. R. Sakthi Vignesh
9	08.06.2020	Technical talk on Advancements of Artificial Intelligence and Machine Learning in Robotics &	Mr. R. Krishnamoorthy

### Technology and Engineering Management Society

Sl. No.	Event Date/s	Topic	Resource Persons
1.	20-21, Jan 2020	Intl. Conference Urban Data Sciences with the theme on Smart Cities	Multiple

2.	02 May, 2020	National Conference Web Conference on “Skill Enhancement / Re-skilling during the Lockdown	Ms. N. Dhamayanthi & Dr. Badri Narayanan Gopalakrishnan
3.	22.02.2020	IEEE TEMS Industry Forum - Madras	Multiple
4.	22.04.2020	Deployment of Telehealth: A perspective for Technologists" (In the context of COVID 19 pandemic)	Prof. K. Ganapathy
5.	10.05.2020	Personal Finance for Techies	Mr. Ranganath Muthu,
6.	20.05.2020	Neoskilling for Digital Transformation & AI Revolution	Mr S. Ramachandran
7.	30.05.2020	Research Directions in IoT and Fog Computing	Dr. C. S. R. Prabhu
8.	01.06.2020	Blending Life’s Vision & Business Vision	Dr Baby Sam Sammuell
9.	25.06.2020	Computer Communication and Virtualization Technology	Er.R.Seetharaman
10.	28.06.2020	Blockchain: Revolutionising the World Economy	Mr. Vinod Sharma.P
11.	10.07.2020	Webinar on Assistive Technology Engineering	Dr.S.K. Ramesh
12.	02.08.2020	Facing the Challenges of COVID-19 ?	Dr.Andy chen & Dr.Ravikiran
13.	11.08.2020	Advanced Life Support	Dr Ashwini Priyanka V
14.	12.08.2020	IOT – The Game Changer in Medical Field	Dr. S Karunakaran
15.	19.08.2020	KNOW YOUR IEEE	Mr.Eugene Kingsley and Ms.Sana
16.	30.12.2020	Hardware efficient design and path planning algorithm for FPGA based autonomous	robot Mr.V.Sudharsan

### 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

Educational Activities: **Dr. D. Devaraj**

#### ➤ Faculty Development Program (FDP)

##### **FDP on Electric Vehicle Technology :**

Every year the IEEE Madras Section organizes Faculty Development Programs to update the knowledge of the faculty members working in Engineering colleges and Universities on the latest Technological developments. In line with that this year the Madras Section has organized a FDP on the title of “Electric Vehicle Technology”, during May 6<sup>th</sup> to May 9<sup>th</sup>. In view of the virus pandemic, the FDP was conducted through on-line instead of the face to face mode. 170 participants including many senior level faculty members, HoDs, faculty members from premier institutions and IEEE Student Branch Counsellors have attended this FDP. During the inaugural session held on May 6<sup>th</sup>, Dr.D.Devaraj, Secretary, IEEE Madras Section and coordinator of the FDP welcomed all the participants. During the welcome speech, he mentioned that IEEE Madras Section apart from organizing the FDP is involved in organizing various other technical activities like Symposia, Technical seminar and workshops for the professional development of Faculty members, Researchers, Industry professional and Students As part of the “Education Activities” of IEEE Madras Section, this FDP is organized. He also highlighted the importance of the theme of the FDP namely, Electric Vehicles Technology. in the future transportation system of many countries including India.

Day 1 comprised of two technical sessions: “Industry Trends and Market growth” by Mr. Kirubakaran, CEO, ExpertsHub followed by “Electric Vehicle Performance and Simulation overview” by Mr. Pradeep Chandrasekaran, GM, R&D Force Motors Ltd. Day 2 comprised of two technical sessions: “Battery Management System for Electric vehicles and energy storage applications” by Mr. Akilan, Grinntech Motor & Services, Chennai followed by “Infrastructure for vehicle charging” by Mr. Anjaneya Gupta, KPIT Technologies, South Korea. Day 3 session comprises of two technical sessions: “Dynamics and Architecture of Electric Vehicle” by Dr. S. HosminThillagar, Prof/EEE, Anna University, Guindy followed by “Automotive Traction Inverters” by Mr. Ashutosh, ZF Group, Hyderabad. Day 4 comprised of “EV Traction motor design and consideration” by Mr. Ganesh Nagarajan, Director & country Manager, ePropelled system’s PVT LTD followed by “Autonomous mobility in Electric Vehicles” by Mr. AjithRaj, ZF Group, Hyderabad. At the end of every session, discussion forum was arranged to enable the participants to clarify their doubts.

The FDP has helped the participants to gain the basic knowledge on Electric vehicles and also the research opportunities existing in this field. The participants have expressed their satisfaction about the quality of the lectures delivered and appreciated the organizers for conducting the FDP on this important topic. At the end, the coordinator Dr. D. Devaraj thanked all the participants for their active participation and he requested them to share the knowledge gained through this event to the students.

#### ➤ **FDP on Control And Stability Aspects In Microgrid:**

A faculty development program on “Control and stability aspects in microgrid” was organized by the IEEE Madras section during December 14-17, 2020 through online for the benefit of the faculty members and research scholars. The event was hosted by the IEEE Students Branch of SRM Institute of Science and Technology, Kattankulathur, Chennai. 60 participants comprising of faculty and PhD scholars have participated in the workshop. The event comprises of guest lectures and practical sessions through online platform mode.

The Inaugural Function commenced at 2.00 pm on 14.12.2020. Dr. D.Devaraj, Secretary, IEEE MAS welcomed the gathering and explained the objectives of the programme. Dr.J.Preetha Roselyn briefed the event details to the participants. Dr.Arul Daniel, Professor/EEE,NIT Trichy was the chief guest for the function and delivered the inaugural address and Dr.N.Kumarrapan, Chairman, IEEE MAS delivered the presidential address and briefed the importance of smart grid. Dr.U.Sowmmiya proposed the vote of the thanks in the inaugural function. The first day of the programme started with Dr.Arul Daniel Professor/EEE,NIT Trichy delivering a lecture on the topic of “Introduction to smart grid and microgrid”. This was followed by a lecture on “Operational challenges in microgrid and demand response” by Dr.Ravikumar Pandi, Assoc Prof/EEE, Amrita Vishwa Vidyapeetam, Kerela.

The second day of the programme started with the lecture by Dr.K.Shanti Swarup, Professor/EE, IIT Chennai on the topic of “Demand side management in microgrid”. The session was followed by a lecture from Dr.Venkata Kirthiga, Assoc Prof/EEE, NIT Trichy on the topic of “Islanded scenarios and stability aspects in microgrid”. In the third day of the programme Dr.Uma, Professor/EEE, Anna University delivered the lecture on “Power quality issues in microgrid”. The session was followed by a practical session on “Development of controllers of microgrid in MATLAB environment” by Mr.Ramana Anchuri, Mathworks.

The fourth day of the programme started with a guest lecture on “Energy management system in microgrid” by Dr.D.Devaraj, Secretary, IEEE MAS. The session was followed by a practical session on “Grid connected PV systems” by Prabhu Shankar, VI Microsystems Pvt Ltd. This session was followed by valedictory function in which Dr.U.Sowmmiya welcomed the gathering and Dr.N.Kumarapan, Chairman, IEEE MAS, delivered the valedictory address. In the feedback session, participants provided their feedback. Dr.D.Devaraj, Secretary, IEEE MAS proposed the vote of thanks. This event enabled the faculty community to enhance their knowledge and understanding of Microgrid Control and stability. The event was coordinated by Dr.D.Devaraj, Dr.K.Vijayakumar and Dr.J.Preetha Roselyn.

#### ➤ **Technical Activities**

Sl.No.	Date	Topic	Speaker
1.	2 <sup>nd</sup> May 2020	Webinar on “Controls and Estimation: Past, Present and Future	Dr. P. Bharani Chandra Kumar
2.	6 <sup>th</sup> May 2020	Webinar on “Smart Grid Technology in India”	Dr. N. Kumarappan
3.	14 <sup>th</sup> May 2020	Webinar on “Awareness of IEEE Awards	Dr. D. Nirmal
4.	19 <sup>th</sup> May 2020	Webinar on “Interdisciplinary Projects in Assistive Technology Engineering	Dr. S. K. Ramesh
5.	25 <sup>th</sup> May 2020	Webinar on “AI/ML Advancements and Potential Applications	Mr. Mukund Kannan
6.	25 <sup>th</sup> May 2020	Webinar Software Development Trends	Mr. Mukund Kannan
7.	12 <sup>th</sup> June	Webinar on “E-Mobility-Trends&opportunities	Mr. P. Prasanthkumar
8.	14 <sup>th</sup> June 2020	Webinar on “Post Covid19-Future of industries	Ezhilmaran Arumugam
9.	8 <sup>th</sup> Aug 2020	Research and Innovation on Emerging Technologies to sustainable Development Goals	Prof. Cella Shahnaz
10.	25 <sup>th</sup> June 2020	Webinar on “IEEE Publications: Enhancing your career”	Dr. Dhanukumar Pattanashetti
11.	27 <sup>th</sup> June 2020	Webinar Software Development Trends	Manikandan Kannappan
12.	1 <sup>st</sup> Sep 2020	Webinar on Hybrid AC/DC Microgrid	Dr. N. Kumarappan

		Architecture, Operation, and Control	
13.	12-13 Sep 2020	IEEE Madras Section & IEEE R10 Sponsored "IEEE Leadership Insight Program"	Multiple
14.	10 -11 Oct 2020	IEEE Madras Section is organizing an IEEE R10 Panel of Conference Organizers (POCO) workshop	Multiple
15.	27 <sup>th</sup> Oct 2020	Workshop on "Frontiers Photonics	Multiple
16	10 <sup>th</sup> Nov 2020	Webinar on Green Energy Solutions with DC Appliances & Smart Micro Grid	Dr. R. Ramarathanam
17.	18 <sup>th</sup> Nov 2020	Webinar on Recent Trends in Energy Storage	Dr. Ranjith Thangavel
18.	20-21 Nov 2020	Women in Engineering E-Symposium-2020	Multiple

#### B.4 Students Activities

- Total number of Student Branches in the Section – 147
- Number of Student Branches formed in the current year – Nil
- Section level student activities (Student Training Program)

Sl.No.	Date	Venue	Topic	No. of participants
1.	5-6 June 2020	online	Machine Learning for healthcare Applications	80
2.	19-21 August 2020	online	Hardware-in-the-Loop (HIL) Simulation	47

- Number of active Student Branches – 74

- Summary of Student Branch activities (Student Branch wise with attachment table/information)

Sl.No.	Student Branch Name	Topic
1	St. Joseph's Institute of Technology	Workshop - Computer Vision [Open CV] using Raspberry Pi and Python
2	National Engineering College	Two Day Workshop on Machine Learning using Python
3	K. Ramakrishnan College of Engineering	Symposium - KRYPTO 2019 (Technical Symposium)
4	Jansons Institute of Technology	Workshop - Two days National Level Workshop on Cloud based Machine Learning for IoT Devices
5	Kalasalingam Academy of Research & Education	International Conference - Intl. conference on Clean Energy and Energy Efficient Electronic Circuit for Sustainable Development
6	Kongu Engineering College	Seminar - Research perspective of Industry 4.0 opportunities & challenges
7	Panimalar Engineering College	FDP - FDP On Machine Learning And Deep Learning For Data Science Engineers
8	Sri Ramakrishna Engineering College	Workshop - Simulation of Electrical Circuits using matlab
9	Panimalar Institute of Technology	STTP - STTP on AI & Machine Learning
10	St. Joseph's Institute of Technology	Workshop - Virtual Hands on Training in Embedded Systems using MPLAX
11	National Engineering College	Online Workshop on Deep learning with Matlab

- Travel Support given to one delegate

Sl. No.	Delegate Name	Institution Name	Amount in (Rs.)
1.	Dr.Soma Prathibha	Sri Sairam Engineering College	10,000

## B.5 Affinity Group Activities

### ➤ Young Professional (YP)

Sl.No.	Date	Topic	Resources Person
1.	12-Jul-20	Webinar Opportunities for Student Members in IEEE WIE	Ms Indhumathi G,
2.	11-Jul-20	Webinar Going Out of Your Comfort Zone	Ms. Simay Akar
3	10-Jul-20	Webinar Find the Answers: If you cannot, change the questions!!	Dr. Ramalatha Marimuthu
4	28-Jun-20	Webinar on Blockchain: Revolutionizing the World Economy	Mr. Vinod Sharma P
5	16-May-20	Webinar on Exploring IEEE Power & Energy Society	Mr. Juan Carlos Montero & Mr. Ajay Kumar
6	09-May-20	Webinar on Effective Online Teaching and Student Engagement	Dr Venkateshkumar
7	08-May-20	Webinar on Exploring IEEE Region 10 Awards - Phase II	Prof. Elmer Dadios Dr. Saaveethya Sivakumar Dr. Abhishek Appaji,
8	26-Apr-20	Webinar on Navigate your Career during COVID-19	Mr. Nivas Ravichandran,
9	25-Apr-20	Webinar on IEEE SMART Village - Humanitarian Activities	Mr Farid Khan
10	21-Apr-20	Webinar on Exploring IEEE Region 10 Awards - Phase I	Professor Dr. Celia Shahnaz,
11	18-Apr-20	Webinar on Exploring Careers: Engineering Graduates in Public Policy	Ms. Vineesha Badabhagni,
12	14-Apr-20	Webinar on Exploring Richard E Merwin Scholarship with Last Decade Winners	Multiple
13	21-Mar-20	Webinar on IEEE MGA Student Awards - For the Champion volunteers of tomorrow	Multiple
14	22-Feb-20	Webinar on IEEE TEMS Industry Forum - Madras	Multiple
15	04-Jan-20	Seminar on STEP 2020 - Discovering Your Professional Future	Multiple
16	02-May-20	Non – Technical Talk IEEE Smart Village South Asia working group	Dr. S.K. Ramesh

### ➤ Women In Engineering (WIE)

S.No.	Date	Topic	Resources person
1	28.02.2020	Technical Talk- Benefits of IEEE Membership	Pooja Sharma
2	29.02.2020	Technical Talk- IEEE Awards and Scholarship	Pooja Sharma
3	03.03.2020	Guest lecture - IEEE SPRITZON'20 event to share about IEEE WIE	Dr. N. Nithyavathy
4	25.04.2020	Technical Talk	Pooja Sharma
5	05.04.2020	Guest lecture	Pooja Sharma
6	20 - 24.05.2020	Guest lecture WIE direct: 294 registrations every day IEEE Members- 103, Non IEEE - 191	Multiple
7	12.06.2020	Guest lecture Inauguration and Motivational Webinar "WOMEN AS ENGINEERS"	Dr. N. Nithyavathy
8	10.07.2020 to 12.07.2020	Webinar Sereis on The webinar is intended to explore more about the opportunity available for students and professional members in IEEE.	Multiple
9	04.05.2020	Guest lecture on Explore WIE	Dr. N. Nithyavathy
10	02.05.2020	Guest lecture on Explore Volunteering in IEEE	Ms.Pooja Sharma
11	18.07.2020	Guest lecture on Renewable sources of Energy"	Ms.Pooja Sharma
12	11.07.2020	Guest lecture on Renewable sources of Energy	Ms.Pooja Sharma
13	23.07.2020 to 29.07.2020	IEEE WIE Webinar Series - Significant Facets of Women in National Development	Multiple
14	19.10.2020	IEEE WIE benefits and in the topic The Nano - Technology Revolution provided	Dr. N. Nithyavathy

s 8 life members

S.No.	Date	Topic	Resource Person
1.	7 <sup>th</sup> Feb 2020	Entrepreneurship	Multiple

## B.6 Awards & Recognition Activities

### ➤ Award constituted by the section:

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.

### ➤ List of all Awards and Recognitions by the Section to SBs:

Sl. No.	School Code	SB Name
1	STB 28841	B.S.Abdur Rahman Crescent Institute of Science and Technology
2	STB 14661	Dr.M.G.R. Educational & Research Institute
3	STB 61401	Dr.Sivanthi Aditanar College of Engineering
4	STB 64181	Francis Xavier Engineering College
5	STB 15122	Hindusthan Institute of Technology
6	STB 09271	Jansons Institute of Technology
7	STB 64275	JCT College of Engineering and Technology
8	STB 64616	K. Ramakrishnan College of Engineering

9	STB 31061	Karunya Institute of Technology and Sciences
10	STB 08101	Knowledge Institute of Technology
11	STB 03237	Kongunadu College of Engineering and Technology
12	STB 60891	K.S.Rangasamy College of Technology
13	STB 65101	M. Kumarasamy College of Engineering
14	STB 99061	National Institute of Technology - Tiruchirappalli
15	STB14231	Panimalar Engineering College
16	STB 15181	Panimalar Institute of Technology
17	STB64274	PPG Institute Technology
18	STB10241	RVS College Of Engineering And Technology
19	STB64283	RVS Technical Campus
20	STB5661	S. A. Engineering College (Autonomous)
21	STB10171	SASTRA Deemed University
22	STB13211	SCAD College Of Engineering And Technology
23	STB64268	SCAD Institute Of Technology
24	STB60101	St. Joseph's College of Engineering
25	STB16181	St. Joseph's Institute of Technology
26	STB 61491	Sri Ramakrishna Engineering College
27	STB-03961	SRI ESHWAR COLLEGE OF ENGINEERING
28	STB61261	Sri Krishna College of Engineering and Technology
29	STB 60981	Sri Sairam Engineering college
30	STB35301	SRM Institute of Science and Technology
31	STB 60551	Sri Sivasubramaniya Nadar College of Engineering
32	STB 62851	St. Xavier's Catholic College of Engineering
33	STB64273	Surya Engineering College
34	STB28141	Thiagarajar College of Engineering
35	STB64290	Vaigai College of Engineering
36	STB 29861	Mepco Schlenk Engineering College
37	STB10070	Sri Ramakrishna Institute Of Technology
38	STB	Kumaraguru College Of Technology
39	STB16621	Kings College of Engineering
40	STB34451	Kalasalingam Academy Of Research And Education
41	STB09591	VIT, Chennai Campus

➤ **List of all awards received by the societies:**

S. No.	Society Name
1	Aerospace Electronics System
2	Control Systems
3	Education Society Chapter
4	Engineering in Medicine and Biology Society (EMBS)
5	Power Electronics Society
6	Photonics Society Madras Chapter
7	Women in Engineering
8	Young Professionals Affinity Group
9	Antennas and Propagation Society
10	IEEE Technology and Engineering Management Society
11	IEEE Computational Intelligence Society
12	IEEE Geoscience and Remote Sensing Society
13	IEEE Robotics and automation

➤ **Awards given to Student Branches having Large Membership by the section**



Sl.No.	Student Branch Name	Total No. of members	Position
1.	Sri Sivasubramaniya Nadar College of Engineering	235	I
2.	Meenakshi Sundararajan Engineering College	216	II
3.	B S Abdur Rahman Crescent Inst of Sci & Tech	212	III

➤ **Awards given to Student Branches for winning the Student Project funding:**  
**Ref. pg. 2**

➤ **Publication Award:**

Professional Members of Madras section who have published their IEEE Transactions for Journals were presented and appreciated with "Publication Award".

➤ **Awards received from R10:**

- ✓ Mr. Aravindhan Anbazhagan, Chair. Young Professionals won R10 SYWL 2020 Poster contest
- ✓ Madras Section received \$2500 as R10 Incentive Grant for the year 2019-20 for the large section category

➤ **Award(s) received from IEEE HQ :**

- ✓ Mr. Aravindhan Anbazhagan, Chair. Young Professionals, received the recipient of the IEEE MGA Young Professionals Achievement Award for the year 2020.

➤ **Awards received from India council:**

- ✓ N. Nithyavathy, Chair, WIE Madras Section, received Outstanding Volunteer award

## 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: 5 issues (Quarterly)
- Web Link for Newsletter: <https://www.ieeemadras.org/news-letter-2/>
- Email ID: ieeemaslink@gmail.com

➤ Home Page of the Section (give the URL and how often it is updated)

- URL: <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 mail and by creating List serv 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

➤ Activities for/with industrial members

Sl. No	Date	Topic	Speaker
1.	10 <sup>th</sup> Nov 2020	Webinar on Green Energy Solutions with DC Appliances & Smart Micro Grid	Dr. R. Ramarathanam

## B. 9 Humanitarian Technology Activities

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

Sl. No.	Activity Date/s	Topic	Resources Person
1	25-Apr-20	Webinar on IEEE SMART Village - Humanitarian Activities	Mr Farid Khan

➤ **SIGHT Activities:**

- HAC & SIGHT Call for COVID-19 Proposals

**B. 10 Community Activities**

➤ **IEEE Social activities (Family day, IEEE day, Engineers Week)”**

- IEEE day (Pls see pg no.1)

**Community Service Activities**

Sl.no.	Date	Topic	Speaker
1.	14.03.2020	Technical Awareness Program on Multirotor UAV	Multiple

**C.1 Special Events**

➤ **Please briefly describe the importance of special events and the outcomes achieved :**

Sl.No.	Date	Topic
1.	10-11 Oct 2020	IEEE R10 sponsored “POCO 2020”
2.	12-13 Sep 2020	R10 Membership Development and Leadership Training Insight Program 2020
3.	5 <sup>th</sup> , 6 <sup>th</sup> , 8 <sup>th</sup> , 12 <sup>th</sup> , 13 <sup>th</sup> December, 2020	IEEE WIE International Leadership Summit 2020 1500

**Outcomes**

- A networking opportunity to identify and contact others was given.
- A basement for future directions for the forum was constructed.
- Known about the funding for organizing activities.
- Updated about the funds available for student chapters.

**Funding secured from the IEEE and external sources including sponsorships:**

- Funding secured from IEEE - \$2970
- 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 IETE centre, Chennai and was co-sponsored by IEEE Madras Section.

- IEEE Madras Section also co-sponsored the programs organized by Institution of Engineers (India), Chennai Centre.

➤ **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.

- Benefit to IEEE members (for example discounts, access to technical information etc.) - Nil
- Benefit to Section (for example help in membership development, venue facilities, cost saving etc.) - Nil

### **C3. Collaboration with other IEEE Sections :**

➤ **Support extended to neighboring Sections:**

- Sponsored Rs.15000/- to organize AISYWL Congress 2020 organized by Delhi section.
- Support to EURESHA, Pune Section event.

➤ Joint activities with any other Section:

- Jointly organized IEEE Inspire India 2020 program with Kerala Section.

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

➤ **Support extended for organizing technical, educational and professional activities:**

- During Annual Meet (AM), every year, Cash awards and appreciation certificates are awarded to the active Society Chapter based on the activities conducted. In the last year, 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 enhancement of Society Chapter performance.

➤ **Joint activities for membership development:**

- Technical meetings were conducted by the membership development sub-committees to develop the membership.

➤ **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)**

- Regular Faculty Development programs in different locations in the state to benefit good number of faculty members.
- Funding for the student project proposals submitted by the student batches of the section to improve the quality of the student Projects at undergraduate level.
- 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 out-reach program to mold better youth of the country.
- Technical Lecture series organized by the technical Society chapters .
- Communication and personality development programs 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 webinar 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 competences of the students.
2. A Project exhibition contest is planned to identify creative and innovative proposals and implementation of strategy for further improvement.
3. 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.
4. More Student Training Programs based on the demand from members.
5. Organization of conference organizers workshop **to equip** the institution leadership to organize good clarity conference.
6. 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 in school level.
5. To organize workshop on advanced health care for 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 visit 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.**

- Planning to circulate IEEE months newsletter to all the educational Institution who are not part of IEEE even if no IEEE Student Branch is functioning.
- Recognition of outstanding professional and volunteers
- To conduct the Membership drive in industries.

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