



IEEE PES BANGALORE CHAPTER

Report for the Annual General Body Meeting - 2020

Chapter activities and Financial activities for the year 2019

Secretary, IEEE PES Bangalore Chapter

1 Introduction

2019 was the year of many activities for PES Bangalore Chapter. These activities have paid rich dividends to the chapter. The AGM-2019 was held on 27th January 2019 between 10 AM and 1 PM at the Chancery Hotel, Bangalore. AGM started with welcome address by Vice Chair, Mr. Rajashekhar, followed by secretary report. Financial report was presented by the treasurer and few student chapter representatives presented the activities happened as part of their student chapters. Chair of IEEE PES Bangalore chapter outlined initiatives, plans and goals for the chapter. Following that the slate committee proposed the new ExeCom and approved. There was a Q&A session in which the student and professional members got few of their questions clarified.

During the AGM-2019, the following were the list of events held in 2018 and reported in vTools, are presented by secretary.

1	Event Title	Event Date	Reported On	Reported	Number o	Number o	Number o	Contact E	Event URL
2	IEEE PES Bangalore Chapter ExCOM Meeting: Dec 2018	12/16/2018 19:00	31-Dec-18	Hariram S	10	9	1	hariramsa	http://events.vtools.ieee.org/m/1844
3	IEEE PES Bangalore Chapter: Outstanding Chapter Volunteer Award Nomination	12/11/2018 8:07	31-Dec-18	Hariram S	1	1	0	gkvraju@	http://events.vtools.ieee.org/m/1829
4	Nomination for IEEE PES Bangalore Chapter Executive Committee - 2019	12/10/2018 20:16	31-Dec-18	Hariram S	23	23	0	sethuram	http://events.vtools.ieee.org/m/1836
5	IEEE PES Bangalore Chapter: Two Days Workshop on Smart Cities	11/16/2018 21:00	31-Dec-18	Hariram S	58	28	30	rajashekh	http://events.vtools.ieee.org/m/1817
6	IEEE PES Bangalore Chapter Nov 2018 ExCOM meeting	11/11/2018 19:00	31-Dec-18	Hariram S	8	7	1	hariramsa	http://events.vtools.ieee.org/m/1817
7	IEEE PES Bangalore Chapter: Outstanding Engineer Award 2018 Nomination	10/22/2018 20:49	31-Dec-18	Hariram S	2	2	0	hariramsa	http://events.vtools.ieee.org/m/1778
8	IEEE PES Bangalore Chapter: Outstanding Service Award 2018 Nomination	10/22/2018 8:31	31-Dec-18	Hariram S	1	1	0	hariramsa	http://events.vtools.ieee.org/m/1778
9	IEEE PES Bangalore Chapter: Industrial Visit 2018	9/24/2018 6:18	31-Dec-18	Hariram S	13	13	0	swaminat	http://events.vtools.ieee.org/m/1763
10	IEEE PES Bangalore Chapter: ExCOM meeting Sept 2018	9/18/2018 19:18	31-Dec-18	Hariram S	9	8	1	hariramsa	http://events.vtools.ieee.org/m/1775
11	IEEE PES Bangalore Chapter: Young Researchers Meet 2018	8/25/2018 9:00	31-Dec-18	Hariram S	68	30	38	ieeepesch	http://events.vtools.ieee.org/m/1758
12	IEEE PES Bangalore Chapter: Industry Conclave: Academia & Industry Interaction	8/18/2018 9:00	31-Dec-18	Hariram S	50	15	35	satish.eee	http://events.vtools.ieee.org/m/1758
13	Women In Power Engineering (WIPE) 2018	7/28/2018 9:00	31-Dec-18	Hariram S	55	30	25	k_deepa@	http://events.vtools.ieee.org/m/1746
14	IEEE PES Bangalore Chapter ExCOM meeting July 2018	7/4/2018 19:30	5-Jul-18	Hariram S	11	11	0	hariramsa	http://events.vtools.ieee.org/m/1745
15	ExeCom Meeting - PES Bangalore chapter	6/13/2018 19:00	13-Jun-18	Hariram S	15	15	0	hariramsa	http://events.vtools.ieee.org/m/1739
16	IEEE PES Bangalore Chapter ExCom Mar 2018	3/23/2018 18:00	31-Dec-18	Hariram S	8	8	0	hariramsa	http://events.vtools.ieee.org/m/1698
17	ExeCom Meeting - PES Bangalore chapter	3/23/2018 18:00	31-Dec-18	Hariram S	8	8	0	hariramsa	http://events.vtools.ieee.org/m/1703
18	IEEE PES Bangalore Chapter ExCom Feb 2018	2/20/2018 19:00	21-Feb-18	Hariram S	9	9	0	hariramsa	http://events.vtools.ieee.org/m/1683
19	IEEE PES Bangalore Chapter ExCom Jan 2018	1/21/2018 14:00	24-Jan-18	Hariram S	24	22	2	hariramsa	http://events.vtools.ieee.org/m/1591
20	IEEE PES Bangalore Chapter AGM 2018	1/21/2018 9:00	2-Feb-18	Hariram S	95	95	0	hariramsa	http://events.vtools.ieee.org/m/4912

Every event had membership development as a key criterion which helped to maintain the IEEE PES membership of the chapter. Following the detailed presentation of the events conducted in the year 2018, Slate committee chair, Mr. Sethuraman Ganesan has proposed the following new slate for ExeCom 2019.



S. No.	Name	EXECOM Role
1	Dr Kasi Vishwanadha Raju	Chair
2	Mr Rajashekhar S	Chair Elect
3	Dr Hariram Satheesh	Vice Chair
4	Dr Chandrasekhar Reddy Atla	Secretary
5	Dr Deepa Kaliyaperumal	Treasurer
6	Mr Abhishek Appaji	Member
7	Mr Anand	Member
8	Mr Anil D'souza	Member
9	Gurunath Gurralla	Member
10	Mr Kishore Annam	Member
11	Ms Lakshmi V	Member
12	Dr Manohar Singh	Member
13	Dr Panduranga Vittal	Member
14	Mr Ravindra Barlingay	Member
15	Dr Suresh H Jangamshetti	Member
16	Dr Vidya. H A	Member
17	Mr Suresh V	Immediate Past-Chair

Picture 1: ExeCom-2019

Under the leadership of Chair, the following administrative activities are taken by executive committee.

- Every month one meeting either Face to Face or WebX call
- Every event was recorded in IEEE vTools
- IEEE entice was extensively used for broadcasting events and information
- Web meetings were supported by IEEE HQ
- IEEE listserv group email id was created and used for communication
- Calendar invites were sent from IEEE Google calendar.
- IEEE Bangalore office was used for Face to face meetings few times.
- Our chapter website was continuously updated and used for registrations of events. (<http://ieeepesbangalore.org/>)
- Every ExeCom member has spared their significant personal time for the service.

The Summary of the activities conducted by Chapter for the year 2019 for benefit of PES Chapter professional and student members are presented below.

- OCA runner up in 2018, HPCP award for 2018
- All India PES Student, Young professional, Women, Congress (AIPESYWC 2019)
- Women in Power Engineering
- Two Student branches started, total PES student branches: 18
- Young Researchers' meet
- Industry-Academia Conclave
- Seven Technical talks
- Technical Conference in collaboration with the smarter E India/Inter-solar India 2019
- PES day celebrations
- PES student branch advisor's meet

- Social Activity - Awareness Program on Electricity and Educational activity on Solar & Wind Power
- 200+ Professional Members and 700+ Student Members

Accordingly, all the activities conducted in the year 2019 are reported in vTools and same is presented below for ready reference.

	A	B	C	D	E	F	G	H	I	L	M
1	Event Title	Event Date	Event Category	Event Sub-cat	Region	Section	SPOID	Organizational Unit	Event Location	Reported By	Number
2	Tech Talk: Protection and Safety on Power Syst	1/25/2019 15:00	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Power Research and Deve	Chandra Shekhar	80
3	IEEE PES Bangalore Chapter - Annual General M	1/27/2019 9:00	Professional	Professional	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Lavelle Hall, The Chancery	Chandra Shekhar	79
4	ExCom Meeting-Jan 2019 : Bangalore Section Cl	1/27/2019 14:00	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Hotel Chancery, Lavelle R	Chandra Shekhar	20
5	IEEE PES Bangalore Chapter ExCom meeting-Mt	2/9/2019 19:45	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	WebX-Call, Bangalore, Kar	Chandra Shekhar	13
6	ExCom Meeting - Feb 2019 : Bangalore Section	2/24/2019 11:00	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	13
7	Technical Talk:Energy Conservation & Renewat	3/13/2019 15:00	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Reva University Bangalore	Chandra Shekhar	60
8	Technical talk : Bangalore Section Chapter, PE3	3/16/2019 11:00	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	bangalore, Karnataka, Indi	Chandra Shekhar	32
9	EXECOM Minutes of Meeting - March 2019 : Bar	3/31/2019 11:00	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	12
10	Technical talk: Energy Storage for Future Grid :	4/24/2019 15:00	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Vidyavardhaka College of	Chandra Shekhar	60
11	IEEE PES Day April 2019 : Bangalore Section Cha	4/27/2019 11:00	Nontechnical	Nontechnical	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	bangalore, Karnataka, Indi	Chandra Shekhar	30
12	IEEE PES Student Branch Advisors and Chairs- 2i	4/27/2019 14:00	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	BMSCE, Bangalore, Bangal	Chandra Shekhar	15
13	Technical talk : Bangalore Section Chapter, PE3	5/4/2019 10:30	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	53
14	Technical talk: Evolution of platform for indust	5/6/2019 11:00	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	DAYANANDA SAGAR COLL	Chandra Shekhar	60
15	ExeCom May 2019 : Bangalore Section Chapter,	5/12/2019 11:00	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	7
16	ExeCom June 2019 : Bangalore Section Chapter	6/8/2019 11:00	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	9
17	INDUSTRY ACADEMIA CONCLAVE-2019 : Bangal	7/20/2019 10:00	Professional	Industry Rela	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	The National Institute of E	Chandra Shekhar	45
18	Educational Activity : Bangalore Section Chapte	7/27/2019 9:00	Professional	Continuing Ed	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bnagalore, Karnataka, Indi	Chandra Shekhar	29
19	WIPE 2019 : Bangalore Section Chapter, PE31	8/24/2019 10:00	Professional	Professional	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bagalkot, Karnataka, India	Chandra Shekhar	197
20	Young Researchers Meet æ® 2019 : Bangalore S	9/14/2019 9:00	Professional	Professional	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	45
21	EXECom-Sep 2019 : Bangalore Section Chapter,	9/22/2019 20:00	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	9
22	ExeCom Oct 2019 : Bangalore Section Chapter,	10/12/2019 11:00	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	10
23	ExeCom Oct 2019_2 : Bangalore Section Chapte	10/31/2019 19:30	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	4
24	Technical talk: Adaptive and intelligent relayin	11/16/2019 11:00	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Global Academy of Techno	Chandra Shekhar	60
25	Key note & panel discussions on Hybrid System	11/28/2019 12:00	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	35
26	Keynote & Panel discussions on Role of Power	11/29/2019 12:30	Technical	Not Available	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	25
27	ExeCom Meeting-Dec 2019 : Bangalore Section	12/2/2019 19:30	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	Bangalore, Karnataka, Indi	Chandra Shekhar	6
28	ExeCom meeting-Dec 2019-2 : Bangalore Sectic	12/26/2019 20:00	Administrative	ExCom	RO	Bangalore	CH10400	Bangalore Section Chapter, PE31	bangalore, Karnataka, Indi	Chandra Shekhar	7

Picture 2: Events reported in vTools for the year 2019

The details of individual events are presented in the following sections.

2 All India PES Student Congress (AIPESYWC 2019)

The first ever All India PES Student/YP/WIE Congress was held on 17th, 18th and 19th of October 2019 at Global Institute of Technology in Bengaluru. The theme of the congress was 'Towards a Greener Future'. The congress was attended by over 130 delegates from about six section in India. AIPESYWC was financially supported by IEEE Bangalore Section, IEEE PES YP and IEEE Young Professionals. Professionals from Academia, Management Studies, and Industry were among the speakers at the congress.

The congress was spread evenly across three days with technical talks, awareness about IEEE PES and every avenue for volunteering and membership benefits.



Picture 3: Group Picture at the End of Day 1

Day 0 (16th October 2019)

The delegates were checking into their accommodation and getting ready for the congress, while meeting with delegates from other colleges and catching up with old friends. Some delegates spent their time exploring the city and all its historical sites before retiring for the day for the first day of the congress.

Day 1 (17th October 2019)

The day started with registrations and inauguration of the congress. The chief guest for the event was Mr. Abhimanyu Gartla, Executive Director of SRLDC – Bangalore. The Guest of Honour of Dr. Hussain Falih Mahdi from University of Diyala in Iraq. He is also the PES Day Chair for the year 2019. He was accompanied by Mr. Rajashekar Raju, Chair – PES Chapter in IEEE Bangalore Section and Dr. Vidhya, Professor at GAT.

After the traditional lamp lighting ceremony and few thoughts shared by the guest in attendance about Engineering and the responsibility of an Engineer, the tracks for the day began.

The first session of the day was by Mr. Srikanth Sathyanarayana, who is the director of JVS Electronics. He spoke about the evolution of electrical engineering over the years and the innovations they are looking to make. The second session of the day was by Flight. Lt A T Kishore who spoke about drones and the applications in the present and future. After lunch, the session was headed by Mr. Senguttavan Govindranjan who is the CEO of Leadink India who lectured the participants on how to set a goal, motivation to follow it and to look at the Brightside of things. The ice-breaking sessions and fill ins were managed by the Young Professionals who attended the event. The evening concluded with a cultural performance from the student of the host college followed by networking dinner.

Day 2 (18th October 2019)

Day 2 started with Mr. Siddharth Srinivasan talking about trends in EV technologies and the work their company numocities is doing in the field of making EV vehicles. The students and attendees had a lot of questions and were intrigued by the work that was going on in their own city. This was followed by a session on Leadership by Mr. M Kailashnath who is a Director at Siemens. The speaker encouraged students to think out of the box for solutions to challenging problems and look to make their way instead of following the common path everyone else chooses. The last session was by Mr. Gana Vadlamani, A technocrat and a Harvard graduate who encouraged students to be more analytical in their approach to life and career.



Picture 4: Delegates at the Solar Plant Visit

The participants were then taken to the solar panels and the operation centre of the same. The delegates were taught about the power breakdown at the station and how the entire system works.

The last sessions of the day included more cultural program by the members of the host section followed by sessions by Young Professionals at the congress and a Q&A session between the students and Young Professionals. The session was followed by the Young Professionals Dinner and a meet of PES Day Ambassadors with the PES Day chairs.



Picture 5: IEEE PES Day Ambassadors with the IEEE PES DAY Chair Dr. Hussain Mahdi

Day 3 (19th October 2019)

Day started with Dr. R Nataraja, R10 PES Chapters representative briefing what stands for and how it helps you in furthering your career. This was followed by a Panel Discussion with Dr. Nagaraja, Rajshekhar R, Kashyap K, Chandrashekaraiiah and Mr. John Benedict B. The panel discussed what the students should look for in careers and advised what PES can do in this regard.

This was followed by a networking session and the event concluded by feedback sessions.

3 Women in Power Engineering

IEEE Power & Energy Society Student Chapter in association with Department of Electrical & Electronics Engineering hosted the IEEE PES WIPE 2019 at Multimedia Seminar Hall, PG Block Basaveshwar Engineering College (Autonomous) Bagalkot on 24th August 2019. It was one of the flagship events of IEEE PES Bangalore Chapter. The event was attended by **187** participants from various Engineering Colleges in North Karnataka.

The Registration began at 8.30 AM and the Inauguration was held from 9.30 A.M. Inauguration ceremony was attended by the resource persons Dr. K. Balaraman, Smt. Chandrika K R, Mr. Puneeth Bhurat. Principal Dr. S. S. Injaganeri, IEEE SB counsellor Dr. Suresh H Jangamshetti, WiE chair Dr. (smt) D. S. Jangamshetti, IEEE PES Student Chapter advisor Dr. Basanagouda Ronad, Smt. Sunita S Tambakad. Further, women faculty members from circuit branches were present in occasion. Dr. Jangamshetti welcomed the guests and participants and briefed about the event WiPE to the gathering. Dr. Balaraman presented the inaugural address. In charge Principal Dr. Injaganeri presented the presidential remarks. Dr. Ronad presented vote of thanks.

The sessions began at 10.00 AM. All the presentations in WiPE-2019 highlighted Women in Industry-Roadblocks and Opportunities, Challenges and Opportunities for Women Engineers in KPTCL and ESCOMS. Further, need for networking, time management and effective communication skills were also discussed. Five sessions were conducted, and all the sessions were very interactive. The event concluded at 5.00 pm with a group photo.



Picture 6: WIFE-2019 event at BEC, Bagalkot

4 Young Researchers' Meet

The pre-event kicked off early in the morning of 14th of September 2019, at around 08:30 AM, with the arrival of students and their pre-event registration. A total of 40 participants turned up for the event. As soon as majority of registered students were settled in the hall, the event was kicked off at around 09:00 AM, with a short introduction by Prof. Prema V.

The first talk of the day was delivered by Prof. K Uma Rao, on the topic of 'Condition Monitoring of Induction Motor', in which she highlighted the importance and requirement of monitoring of induction motors, different types of maintenance for induction motors. She then moved on to explain the impact of IoT on monitoring and maintenance. She also discussed about the design and fault analysis of PV modules.

The second talk of the day, delivered by Dr. Vijay Panday, of Amrita Vishwa Vidyapeetham, on the topic of 'Analysis of PMU Data: Research work carried out in this field.' He discussed and suggested possible solutions to the difficulty in conveying data analytics capabilities to describe things in terms of decision making and visual representation of the grid status for acting.

This was followed by a third talk by Dr. Hariram Satish of ABB Ltd., on the topic of 'Recent Research Trends in Power Electronics', in which he gave a brief introduction of ABB and followed it with a

detailed overview of the changing trends in the industry regarding power electronics and how our daily electronics is adapting to these changes fast.

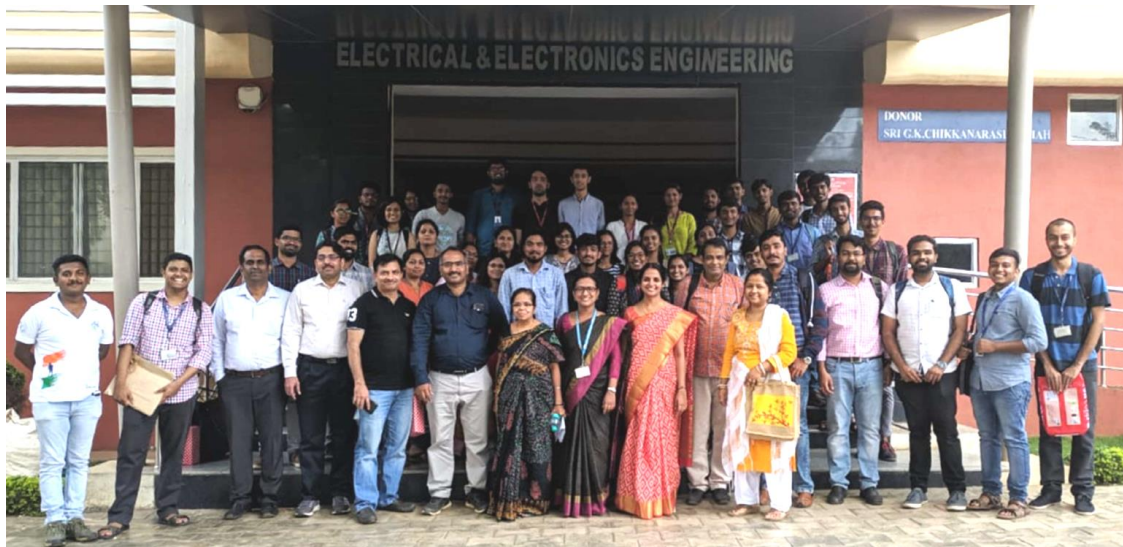
After lunch, the allotment of mentors was carried out for 6 to 8 research scholars forming about 6 groups, who were consulted and mentored by the mentors in their experience and methodology and the mentoring sessions were carried out for these scholars at the Department of Electrical and Electronics Engineering of R V College of Engineering. A short tea break was taken and then the mentoring sessions were resumed up until 04:15 PM.



Picture 7: The student attended for the event.



Picture 8: Mentoring Sessions during the event



Picture 9: Group of Young Researchers Meet event

5 Education Activities

IEEE – Power and Energy society Student Branch – **Global Academy of Technology** was happy to host IEEE – PES, Bangalore chapter flagship event: **Educational Activity - Awareness Program on Electricity and Renewable Energy**

This educational activity was conducted in two different Govt. schools in Kunigal Taluk. A team of 24 students led by three faculty members visited the schools on 27 Jul 2019 during 09:00 AM to 12:00 PM. Student members were divided into small groups and each group presented and/or demonstrated on different topics for Government High School 8th to 10th standard students. The topics covered were wind and solar energy, Prevention against electric shock, Awareness about electric power system, Advantages and Disadvantages of Electric vehicle, Different parts of iron box, Basic electrical concepts and Battery charging. The school children expressed their happiness during the interaction.





Picture 10: Educational Activity - Awareness Program on Electricity and Renewable Energy

Next, team visited Government Primary School, Hunuganahally, Kunigal Taluk where colouring kits were distributed to the kid's and KID's colouring activity was conducted on Solar Power (house), Wind Power (world) and Solar Power (superhero). The kids were very much enthusiastic to complete the task.

We would like to thank IEEE – PES Bangalore chapter to provide us the opportunity to host this event. We would also like to thank the school management and staff for the excellent hospitality and support during the interaction.



Picture 11: KID's coloring activity was conducted on Wind Power and Solar Power

6 IEEE PES supported panel discussion at Inter Solar Exhibition

IEEE PES Chapter is associated with INTERSOLAR and has supported two panel discussion sessions during INTERSOLAR INDIA Conference for the solar industry held on 28th and 29th Nov 2019.

Panel Discussion 1:

Topic : Hybrid Systems

Date : 28th Nov 2019

Moderator : AS Karanth, Independent Consultant Wind Power, Bangalore

Speakers:

1. MariaSundaram Anthony, GM Global, GE Bangalore
2. Rajsekhar Budhavarapu, Consultant
3. Suhas S, Product Manager, ABB



Picture 12: IEEE PE supported panel discussion-1 during inter-solar conference

Panel Discussion 2:

Topic : ROLE OF POWER ELECTRONICS IN SOLAR POEER GENERATION SYSTEM

Date : 29th Nov 2019

Moderator : Mr. Anand, ZIV Automation India Pvt Ltd

Speakers:

1. Mr. Xavier Scaria PG Manager Solar Invertor at ABB.
2. Mr. Kiran - Head Power systems division at Mytrah Energy India Pvt Ltd
3. Mr. Swaminathan Ganeshan - R&D of String Invertors at Schneider Electric
4. Mr. Madhu – Director Operation at Sandur Laminates Ltd

Topic chosen was ROLE OF POWER ELECTRONICS IN SOLAR POWER GENERATION SYSTEM covering various standards applicable for Solar generation, be it for Panels, Civil part, Structures, DC & AC side of Solar generation. The panel discussion also extended to the challenges; changes & modifications that needs to be considered for grid management & protection system with addition of solar generated power to the grid. Practices that are followed in different parts of the world for Solar power quality & method to mitigate harmonics as well as techniques to pump quality power to the grid was contemplated. The panel also stressed the need of better quality of solar panels which contributes to better power quality output for was also touched upon.

Mr Xavier who was had extensive professional experience in Solar Invertor & Mr Swaminathan who had professional experience both on power system protection as well as Solar Invertor R&D extensively debated on the role of investors in solar generation. Along with Mr Kiran with his experience working with transmission utility KPTCL in the past before serving corporates like Enercon & Mytrah has also been promotor of a company which has developed power simulation software for power engineers & Mr Madhu Director Operation of Sandur Laminates Ltd deliberated on the what the solar generation industry needs to introspect in terms of adhering to standards & practices to improve the system from specification to all along the execution. Various aspects required for better grid management considering availability of power is much less than the installed capacity of solar generation was touched in the discussion. Need for roof top which has much better economic benefits compared to huge solar generation MW parks that are coming up was deliberated.

One & half hour of panel discussion was concluded by Mr Anand on the points touched upon in the discussion & thanks the panellist as well as the organisers on behalf of IEEE PES Bangalore chapter for making time for the panel discussion.



Picture 13: IEEE PE supported panel discussion-2 during inter-solar conference

7 Technical Talks

S No	Hosting institute	Speaker	Topic	Date
1	Global Academy of Technology, Rajarajeshwari Nagar.	Dr. Rahul Kumar Dubey	Adaptive and intelligent relaying scheme for power transmission network	16 th Nov 2019

S No	Hosting institute	Speaker	Topic	Date
2	DAYANANDA SAGAR COLLEGE OF ENGINEERING	Dr Hariram	Evolution of platform for industrial applications.	6 th May 2019
3	Ramaiah Institute of Technology, formerly M.S. Ramaiah Institute of Technology.	Dr. Rajashekar P. Mandi	Renewable Energy and Microgrid'	4 th May 2019
4	Vidyavardhaka College of Engineering, Mysore	Dr Kannan Tinnium	Energy Storage for Future Grid	24 th April 2019
5	DAYANANDA SAGAR COLLEGE OF ENGINEERING.	Mr. R C Anand	Relay and Substation Automation	16 th March 2019.
6	Reva University Bangalore	Dr. M. Arunachalam	Energy Conservation & Renewable energy	13 th March 2019
7	Amrita College of Engineering	Mr. R C Anand	Industrial Automation	2 nd Feb 2019
8	Power Research & Development Consultants Pvt Ltd	Dr. Nirmal Kumar C Nair	Protection and Safety on Power Systems with DERs	25 th Jan 2019



Picture 14: Technical talk by Dr. Rajashekar P. Mandi at Ramaiah Institute of technology



Picture 15: Technical talk/workshop by RC Anand at Amrutha College of Engineering

8 PES India Chapters Council Meeting

IEEE PES Bangalore Chapter hosted the PIC meeting at Global Institute of Technology in Bengaluru on 19th Oct 2019.



Picture 16: members discussions during PIC meeting

9 INDUSTRY ACADEMIA CONCLAVE

The Department of Electrical and Electronics Engineering of The National Institute of Engineering, Mysore, India, organized the “2019 Industry Academia Conclave (IAC)”. The event is organized on 20th July 2019.

10 R10 Chapters Chair Meeting

Representative from PES Bangalore Chapter, Dr. Hariram Satheesh, Vice Chair, has attended the Chapters Chair meeting on 1st Dec 2019 at Hotel Grand La Pa, Macau, China.



Picture 17: PES chapter Members during Chapter Chair meeting

- There were around 25-chapter representatives from various part of R10 region including China, Thailand, Australia, Singapore, Malaysia, Srilanka, Philippines
- The other office bearers of R10 and HQ attended were Dean Sharaffi, Nirmal Nair, Mazana, Frank, Nagaraja and Mike Wilson.
- On 1st Dec 2019 the training was packed with discussions and presentations on topics listed below between 8 AM and 5 PM
 - Introduction by Dean Sharaffi (Chapters Representative)
 - Chapters – Goals, strategy and Directions by Mazana (VP Chapters)
 - vTools, listserv and webinars – Nirmal Nair
 - IEEE Executive Office – Mike Wilson
 - Expense Reporting – Dean Sharaffi
 - L31 reporting – Nirmal Nair
 - DLP – Nirmal Nair
 - OEA – Dean
 - HPCP – Dean
 - OCA – Dean
 - Student Chapter Activities – Hussain (Malaysia)
 - PES Scholarship Plus Initiative – Nagaraja (R10 Representative)
 - OU Analytics – Nagaraja
 - WiPE – Xia Chen (China Chapter representative)
 - Thailand Chapter proposed Intl. Conf. on Smart Cities – 2021 (Pattaya)
 - Kerala Chapter presented their activities of 2019 – an example of good chapter
 - Bangalore Chapter promoted Powercon 2020
 - Concluded with a group picture
 - Visit to University of Macau and their IoT Lab tour
 - APPEEC 2019 welcome reception dinner at University of Macau

11 IEEE PES day celebrations

The IEEE Power and Energy Society, Bangalore Chapter celebrated PES day on 27th April 2019 at BMSCE, Bangalore.

All student branch chapters advisors and chairs along with ExCom members were invited for the celebration. There were around 50 members from BMSCE, RVCE, DSCE, ASE, BEC, UVCE, DSATM, VVCE, GAT, Christ University, Bangalore, etc.



Picture 18: IEEE PES day celebration at BMSCE

12 Student branch Advisors and Chairs meet

Student branch advisors and Chairs meet of IEEE PES Bangalore Chapter held on 27th April 2019 at BMSCE, Bangalore.

- The flagship events of IEEE PES Bangalore Chapter are proposed to be held at:
 - ❖ YRM → RVCE, Bangalore.
 - ❖ State Level Student Congress → Global Academy of Technology, Bangalore.
 - ❖ WIPE → BCET, Bagalkote.
 - ❖ Industry – Academia Conclave → NIE, Mysore.
 - ❖ National Level Student Congress → RVCE & Christ.
- IEEE PES members requested the advisors to send proposals for the events.
- The well-organized and excellent presentation was given by Mr. Abhishek Appaji on usage of V-Tools, distinguished lecture program (DLP), Awards, Industry Visits, Educational activities, Smart cities workshop, Tutorials/workshops etc.
- Dr. Kasi Vishwanath Raju, Mr. Rajashekhar, Dr. Vidya H.A and Mr. Abhishek Appaji have addressed the issues related to the IEEE PES student Chapter Branches. There was discussion on the budget of the events to be conducted, TA/DA, and the other facilities available from the Chapter.
- The discussion was held on usage of IEEE PES logo and IEEE PES members suggested the Branches to design the logos and send to us at the earliest.
- Suggested advisors to send the proposals for the events which they are organizing other than IEEE PES flagship events prior to the events.



Picture 19: Student branch advisors and Chairs meet

13 Executive Committee Meetings

The ExeCom meets every month at designated venues for a F2F meeting or through WebX call. In addition to ExeCom meetings, due to Powercon-2020 conference, face to face and WebX meeting are organized on case-case basis. All the WebEx meeting creations were supported by IEEE. The communications were facilitated through listserv accounts and all the events were reported in vTools and all the group publicity was done through eNotice.

14 Membership

The IEEE PES Bangalore chapter membership has significantly increased from the start of this year and this is also due to the contributions from ExeCom members and student chapters through various events. The total IEEE PES Bangalore members as on date is 712, out of which around 250 are professional members.

15 Student Branch Chapters

Following Student Branch Chapters were opened in the year 2019:

1. KLS GOGTE Institute of Technology, Belagavi



Picture 20: Inaugurated by the past Chair, Dr. Kannan on 24th Oct 19 at KLS GOGTE on 24th oct 2019

The list of IEEE PES Bangalore Student Branches is listed below:

Amrita School of Engineering	Nitte Meenakshi Inst Of Technology
B. M. Sreenivasalah College of Engg	Ramaiah Institute of Technology
Basaveshwar Engineering College	Rashtreeya Vidyalaya College of Engineering
Central University of Karnataka	Reva Institute of Technology and Management
Christ University	Sai Vidya Institute of Technology
Dayananda Sagar Academy of Tech and Management	Saint Joseph Engineering College-Mangalore,
Dayananda Sagar College of Engineering	Vidya Vardhaka College of Engineering
Global Academy of Technology	Visvesvaraya Univ College of Engg
National Institute of Engineering-Mysore	GSSS Inst. of Engg and Tech for Women
KLS GOGTE Institute of Technology, Belagavi	

16 Financial Status 2019

Income for the year 2019 has been presented in Table 1.

Table 1: Income for year 2019		
SI No	Description	Amount in Rs.
1	APPEC-2018 Reimbursement	1051699.00
2	IEEE PES Outstanding Chapter Award- 2017	17690.00
3	IEEE PES Outstanding Chapter Award- 2018	18165.00
4	IEEE PES Congress Sponsorship -round table mentoring	53070.00
5	IEEE PES YP funding for AIPES Congress	71310.00
6	AIPES Congress Registration fee	21780.00
7	Sponsorship from GE for Smart city-2018	90000.00
8	IEEE-PES -OSA-2018 from PRDC	15000.00
9	Interest from corporation bank	85615.00
	Total Income	1424329.00

Expenses for the year 2019 has been presented in Table 2.

Table 2: Expenses for 2019		
SI no	Description	Amount in Rs
1	AGM 2019	134379.00
2	OSA, OEA, OVA & Best SBC awards AGM 2019	53227.00
3	IEEE India Council meet Lunch Expenses Reimbursement	12555.00
4	Smart city 2018 workshop	80000.00
5	Industry Academia Meet 2018 at DSCE	3390.00
6	IEEE Office Rent (Jan 2019 to Dec 2019)	43350.00
7	IEEE POWERCON 2020	165635.00
8	IEEE PES day Celebration at BMS college of Engg	14641.00
9	WIPE at Bagalkot Engg college	30670.00
10	IEEE AIPES Congress at GAT	238849.00
12	Intersolar Workshop Travel Expenses	14910.00

Table 2: Expenses for 2019		
Sl no	Description	Amount in Rs
13	Industry Academia Meet 2019 at NIE Mysore	11547.00
14	Travel expense Social reach event at Government school	7700.00
15	Tech talk travel allowance	5624.00
16	DSAT&M new student branch travel allowance	3380.00
17	EXECOM members - Visiting cards printing	3639.00
18	Audit Fees -Financial year 17-18 and 18-19	71440
20	F2F meeting food expense	1255.00
21	Digital signature	1062.00
23	Petty cash expenses	3908.00
	Total Expenses	901161.00
	Income over expenditure	523168.00

Opening and closing balance of IEEE PES Bangalore Chapter accounts as on 31st December 2018 and 4th Jan 2020 are given in Table 3.

Table 3: IEEE PES Bangalore Chapter Income/Expense Statement - Calendar year 2019			
	Bank Details	Opening Balance as on 31st Dec 2018	Closing balance as on 4th Jan 2020
1	Corporate Bank	1403535.13	1739693.00
2	SBI Bank	9352	196362.00
3	Cash in hand	0	0.00
	Net Balance in Rs.	1412887.13	1936055.00