

IEEE Power & Energy Society

Bangalore Chapter, India



Submission of 2020 Summary of Activities for

“Outstanding Chapter Award 2020”



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1.0 EXECUTIVE SUMMARY / NOMINATION

1.a EXECUTIVE SUMMARY

IEEE PES Bangalore chapter once again had another important and action-packed year 2022. Highlights were IEEE PES Student Congress, Women in Power Engineering, Young Researchers meet, Industry-Academia Conclave etc.

Summary of the events and recognitions:

- IEEE POWERCON-2020 International conference
 - Women in Power Engineering (WIPE)
 - Young Researchers Meet (YRM)
 - Industry-Academia Conclave
 - OCA winner for 2019
 - HPCP award for 2019
 - 11 EXECOM meetings
 - Seven Webinars on Technical talks
 - PES day celebrations
 - PES student branch advisor's meet
 - 220+ Professional Members and 700+ Student Members as on Dec 31, 2020
-
- **IEEE PES global workshop 2022**

Accordingly, all the activities conducted in the year 2020 are reported in vTools and same is presented below for ready reference.

	A	B	C	D	E	I	L	M	N	P	Q	R
1	Event Title	Event Date	Event Category	Event Sub-Region	Hosts		Event Location	Virtual?	Reported On	Number of Attendance	Number of IEEE Member	Number of Non-Member Attendees
2	IEEE Power & Energy Society Bangalore Cha	05-01-2020 14:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	97	92	5
3	Execom meeting - Jan 2020 : Bangalore Sec	18-01-2020 07:30	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	14	14	0
4	Execom Meeting - February 2020 : Bangalor	08-02-2020 14:30	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	14	14	0
5	IEEE PES Student Branch Advisors and Chair	29-02-2020 10:00	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	C D Sagar Auditorium, DSCENo		14-Nov-20	30	30	0
6	Execom Meeting - Match 2020 : Bangalore	21-03-2020 20:00	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	12	12	0
7	Webinar-1: Substation Automation and IEC	26-03-2020 19:30	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	43	38	5
8	Webinar-2: E-Mobility: Future of sustainable	09-04-2020 19:30	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	33	30	3
9	Webinar-3: Use of IOT and Data Analytics/N	16-04-2020 20:00	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	28	25	3
10	Execom Meeting - April 2020 : Bangalore Se	24-04-2020 20:00	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	17	17	0
11	Execom Meeting - May 2020 : Bangalore Se	30-05-2020 20:00	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	16	16	0
12	Execom Meeting - July 2020 : Bangalore Sec	12-07-2020 19:30	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	11	11	0
13	INDUSTRY ACADEMIA CONCLAVE-2020-Day	03-08-2020 16:30	Professional	Industry R	RO	CH10400 - Bangalore Section Chapter, PE31	Amrita School of Engineerin	No	14-Nov-20	57	50	7
14	INDUSTRY ACADEMIA CONCLAVE-2020-Day	04-08-2020 16:30	Professional	Industry R	RO	CH10400 - Bangalore Section Chapter, PE31	Amrita School of Engineerin	No	14-Nov-20	45	42	3
15	INDUSTRY ACADEMIA CONCLAVE-2020-Day	05-08-2020 16:30	Professional	Industry R	RO	CH10400 - Bangalore Section Chapter, PE31	Amrita School of Engineerin	No	14-Nov-20	50	50	0
16	Webinar-4: How to write an effective Techn	06-08-2020 17:30	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	120	100	20
17	Execom Meeting - August 2020 : Bangalore	20-08-2020 19:30	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	11	11	0
18	Execom Meeting - August 2020 : Bangalore	20-08-2020 19:30	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	11	11	0
19	IEEE PES STUDENT CONGRESS 2020-Day-1 :	28-08-2020 10:30	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	BMSCE IEEE Power and Ener No		14-Nov-20	60	50	10
20	IEEE PES STUDENT CONGRESS 2020-Day-2 :	29-08-2020 14:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	BMSCE IEEE Power and Ener No		14-Nov-20	45	40	5
21	IEEE PES STUDENT CONGRESS 2020-Day-3 :	30-08-2020 11:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	BMSCE IEEE Power and Ener No		14-Nov-20	90	80	10
22	Execom Meeting - September 2020 : Bangal	10-09-2020 19:30	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	12	12	0
23	POWERCON-2020 International conference:	10-09-2020 09:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	14-Nov-20	190	100	90
24	POWERCON-2020 International conference:	15-09-2020 09:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	14-Nov-20	150	100	50
25	Woman in Power Engineering: WIPE in POW	15-09-2020 17:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	No	14-Nov-20	60	45	15
26	POWERCON-2020 International conference:	16-09-2020 09:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	14-Nov-20	90	60	30
27	Webinar-5: Optimal Operation of Power Sys	30-09-2020 18:00	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	14-Nov-20	15	15	0
28	Execom Meeting - October 2020 : Bangalor	10-10-2020 19:30	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	14-Nov-20	14	14	0
29	Webinar-6: Transient Stability Assessment	11-10-2020 16:00	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	14-Nov-20	20	15	5
30	Webinar-5: Improved Power System Protecti	24-10-2020 18:00	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	31-Oct-20	90	70	20
31	Webinar-7: Improved Power System Protecti	01-11-2020 18:00	Technical	Not Availa	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	14-Nov-20	25	25	0
32	Woman in Power Engineering: WIPE 2020: C	06-11-2020 18:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	Mysuru, Karnataka, India	No	14-Nov-20	60	50	10
33	Woman in Power Engineering: WIPE 2020: C	07-11-2020 18:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	Mysuru, Karnataka, India	No	14-Nov-20	25	25	0
34	Young Researchers Meet - 2020 - Day 1 : Ba	18-11-2020 10:00	Professional	Industry R	RO	CH10400 - Bangalore Section Chapter, PE31	Central University of Karnat	No	16-Dec-20	50	40	10
35	Young Researchers Meet - 2020 - Day 2 : Ba	19-11-2020 10:00	Professional	Industry R	RO	CH10400 - Bangalore Section Chapter, PE31	Central University of Karnat	No	16-Dec-20	40	30	10
36	Execom Meeting - November 2020 : Bangal	21-11-2020 19:30	Administrative	Execom	RO	CH10400 - Bangalore Section Chapter, PE31	Bangalore, Karnataka, India	Yes	16-Dec-20	9	9	0
37	Creat-a-thon 2.0 : Bangalore Section Chapte	28-11-2020 11:00	Professional	Continuing	RO	CH10400 - Bangalore Section Chapter, PE31	Central University of Karnat	No	16-Dec-20	30	20	10
38	IEEE PES Chapter - Awards Function - Dec 2	13-12-2020 11:00	Professional	Professor	RO	CH10400 - Bangalore Section Chapter, PE31	Shaneri-La Hotel, Bangalore No		16-Dec-20	23	20	3

Picture 1: Events reported in vTools for the year 2020

Office bearers (2020):

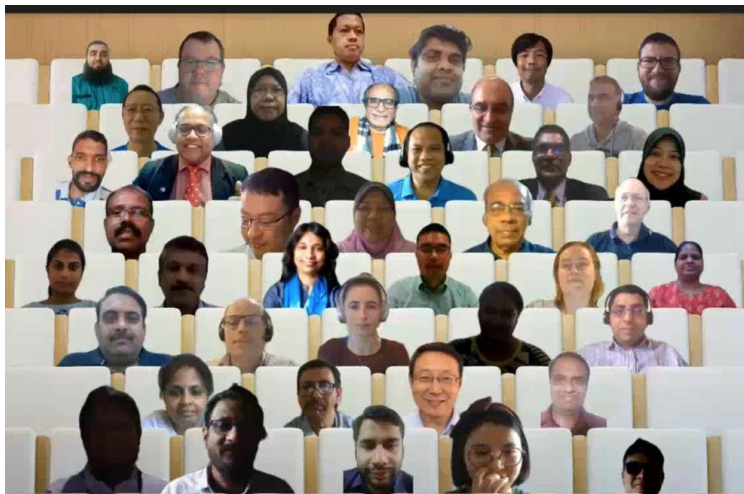
- Chair : **Dr. Kasi Viswanadha Raju, GE**
- Chair Elect : **Mr. S. Rajashekhar, OSI**
- Vice Chair : **Dr. Hariram Satheesh, ABB**
- Secretary : **Dr. Chandrasekhar Reddy Atla, PRDC**
- Treasurer : **Ms. Lakshmi, Free launcher**



Picture 2: ExeCom members for the year 2020

1.b REGION WISE REPRESENTATION

- Representative from PES Bangalore Chapter, Dr. Kasi, Chair; Mr. Rajashekhar, Chair Elect; Ms. Lakshmi, Treasurer has attended the Chapters Chair meeting on **1st Dec 2019** through online meeting.



Picture 3: 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.**

2.0 ACTIVITIES

2.a Conferences and Workshops 2.a.1 IEEE POWERCON-2020 International Conference

The IEEE PES and CSEE sponsored conference in Region 10 has been hosted by IEEE PES Bangalore Chapter during September 14-16, 2020 through virtual mode. POWERCON-2020 was inaugurated on 14th September 2020 at 9:00 AM. Shri Mahendra Jain, IAS, Additional Chief Secretary, Energy Department, Government of Karnataka was the Chief Guest. Dr. Frank Lambert, IEEE PES President, Mr. Shujun Lu, Deputy President, CSEE and Mr. Dean Sharafi, IEEE PES R-10 representative were the Guests of Honor.



Picture 4: Inaugural Function, IEEE POWERCON 2020

IEEE PES Bangalore chapter presented, IEEE PES Outstanding Service Award 2020 to Mr. M.M. Babu Narayanan in recognition of his contribution to the power engineering field, IEEE PES Outstanding Engineer Award 2020 to Dr. Kannan Tinnium and IEEE PES Outstanding Engineer Award 2020 (Young Professionals) to Dr. Manohar Singh.



Picture 5: IEEE PES Bangalore Chapter Awards 2020

The objective of the conference was to discuss the “Transformations in Power Grids: Producers to Prosumers”. Renewable Energy Resource Planning, Cyber Security in Power Transmission system and Urban E-Mobility and the future opportunities.


3 keynotes, 3 panel sessions, 2 industry sessions, 4 plenary talks, 3 invited talks and 12 paper tracks were organized during the event, to encircle the conference theme.

The first industry panel discussion was initiated on resource planning in RE rich environment in India on Day-1.



Picture 6: Panel Session-1 on 'Resource planning in RE environment'

On similar lines, panel discussion-2 was organized on 'cyber security in power transmission system' and panel discussion-3 on 'urban e-mobility' on day-2, Sep 15, 2020. All these three panel sessions comprised a Chair/Moderator and 3-4 panellists.



Cyber Security in Power Transmission System
PANEL SESSION 2 - 15th Sept. 2020

Panelist: Prof. Manimaran Govindarasu
Iowa State University

Moderator: Dr. Aditya Ashok
Pacific Northwest
National Laboratory

Panelist: Dr. Apala Ray
Global Cyber Security
Manager, ABB

Panelist: Dr. Bruno Leao
Siemens Corporate Research

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Picture 7: Panel Session – 2 on ‘Cyber Security in Power Transmission’



Urban E-mobility
PANEL SESSION 3 - 15th Sept. 2020

Panelist: Dr. Amit Gupta,
Electrical Program Director
- RR@ NTU Crop Lab

Moderator: Mr. Ravikiran A,
CEO, Numocity Technologies

Panelist: Mr. Arun Krishna Gelli,
Divisional Manager,
Ashok Leyland

Panelist: Mr. P. Prasanth Kumar,
Automotive Homologation
Consultant, Haritha Techlogix

Panelist: Mr. Vaibhav Deshwal,
Business Area Sales Director,
ABB

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Picture 8: Panel Session – 3 on ‘Urban e-mobility’

Keynote-1 address on “New Electric World” was delivered by Mr. Anil Chaudhary, CEO, Schneider Electric India Pvt Ltd & Zone President, India. Prof. Jianbao Guo, State Grid Corporation of China delivered the keynote address on “Large Scale Integration of Renewables: Future Trends” on Day-2. Keynote address with the theme “Electricity Markets in India” was delivered by Mr. Sudhansu S Barpanda, Director, POSOCO, India on Day-3.



Mr. Anil Chaudhry



Prof. Jianbao Guo



Mr. Sudhansu S Barpanda

Picture 9: Keynote speakers in POWERCON-2020

Mr. B. S. Bindhu Madhava, Director, CDAC Bengaluru delivered the invited talk on “Blockchain based Power Sector Applications”. An invited talk with the theme "Utility Energy Storage Experience" was delivered by Dr. Ganesh Das, Head-Collaborations, Innovation and R&D, CEO, CEIIC, India. Dr. Jan Poland, Senior Principal Scientist, Hitachi ABB delivered the invited talk on “AI & Machine Learning in Power Industry: Opportunities & Challenges”. During conference, every day one invited talk was organized.



Mr BS Bindhumadhava



Dr G. Ganesh Das



Dr. Jan Poland

Picture 10: Invited talk speakers in POWERCON-2020

Mr. Raj G Srivastava, Senior Manager, OSI delivered the plenary talk on “Renewable Energy Resource Management” on Day-1. A plenary talk with the theme "Towards Sustainable Grid - KPTCL Initiatives” was delivered by Dr. N. Manjula, IAS, MD, KPTCL, India on Day-2. Mr. Jean Belanger, CEO, Opal RT Technologies delivered the plenary talk on “Cloud Based EMT Simulation for Implementing Digital Twin in Low Inertia Transmission, Distribution & Microgrid Systems” on Day-2. Mr. Greg Kushnir, CEO, EMROD delivered the plenary talk on “Long-Range Wireless Power Transmission - From Tesla to Electric Aviation” on Day-3.



Picture 11: Plenary talk speakers in POWERCON-2020

As part of the conference, on 15th September 2020, “Women in Power Engineering” program was held on the theme “Transformation in Work and Workplace”. Four women panelists shared their experiences on work life balance, opportunities for women in renewable energy sector etc.



Picture 12: Women in Power Engineering 2020 Program

Two unique industry sessions “Emerging Technologies - Start-ups”, sponsored by IEEE Young Professionals and an industry session on “Microgrids & Distributed Energy Resources” were organised on Sep 14 and Sep 16 respectively.

The conference had organized 12 paper tracks with 59 accepted papers. The paper tracks covered traditional power engineering topics such as **Power System Analysis, Modelling & Simulation, power system optimization and power markets** along with emerging areas like **electric mobility, smart grid technologies, microgrids and machine learning applications**. The conference was attended by all the 59 authors, 115 registered delegates, 28 speakers and 65 committee members, volunteers & delegates from sponsors.

It was a unique opportunity given to IEEE PES Bangalore Chapter by the IEEE PES and CSEE Committee to conduct this program. I thank all the volunteers who have contributed directly or indirectly for the success of this conference.

2.b PROFESSIONAL PROMOTION

2.b.1 Industry-Academia Conclave

Venue : The Amrita School of Engineering, Bengaluru, India

Date : August 3 -5, 2020

Mode : Online

The Department of Electrical and Electronics Engineering of The Amrita School of Engineering, Bengaluru, India, organized the “2020 Industry Academia Conclave (IAC)”. The event is organized during, 3 -5 August 2020.



IEEE PES
Power & Energy Society™
BANGALORE CHAPTER

AMRITA
VISHWA VIDYAPEETHAM

IAC
INDUSTRY ACADEMIA CONCLAVE
2020

IEEE PES Bangalore Chapter Flagship event

3 - 5 AUGUST 2020
4:30 - 6:30 PM

<https://forms.gle/pUfjX7jXe8C2qCGi7>

AMRITA SCHOOL OF ENGINEERING, BANGALORE.

IEEE PES
Power & Energy Society™
[PE31/IA34-SBC6393]

For Queries Contact:
K.Revanth: 8309567486.
R.Sudheer: 9704582479.
Dr.K.Deepa: 99800005071.

<https://r10.ieee.org/bangalore-pes/>



SPEAKERS OF IAC - 2020

DAY 1 : 03/08/20

<p>4.30 - 5.15 PM</p> <p>Role of Industry in enhancing the quality of academic delivery</p> <p>Dr.Veena S Chakravarthi Co Founder & CTO of Sensesemi Technologies Pvt Ltd Research head and Professor, BNMIT</p>	<p>5.15 - 6.00 PM</p> <p>Building a Power LinkedIn Profile</p> <p>Mr.Rajesh Gopal, INSEAD Alum and Career Success Coach</p>	<p>6.00 - 6.45 PM</p> <p>Enhancing Industry-Institute Interaction - Bilateral Empowerment Roadmap to Paradigm shift in curriculum - An industry-institute interaction</p> <p>Dr.K S Sridhar Registrar, PES University</p>
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DAY 2 : 04/08/20

<p>4.00 - 5.15 PM</p> <p>Engineers for Social Sector</p> <p>Mr.Rajagopal, Program Manager - Admissions, Azim Premji University</p>	<p>5.15 - 6.00 PM</p> <p>Teaching Systems Engineering Experiences - Industry Academia Interactions</p> <p>Mr.Yogananda Jeppu, Principal Systems Engineer, Honeywell Technology Solutions</p>	<p>6.00 - 6.45 PM</p> <p>Academic and Industrial perspectives of Industry Institute Interaction</p> <p>Dr.Narendranath Udupa, Independent Energy Consultant</p>
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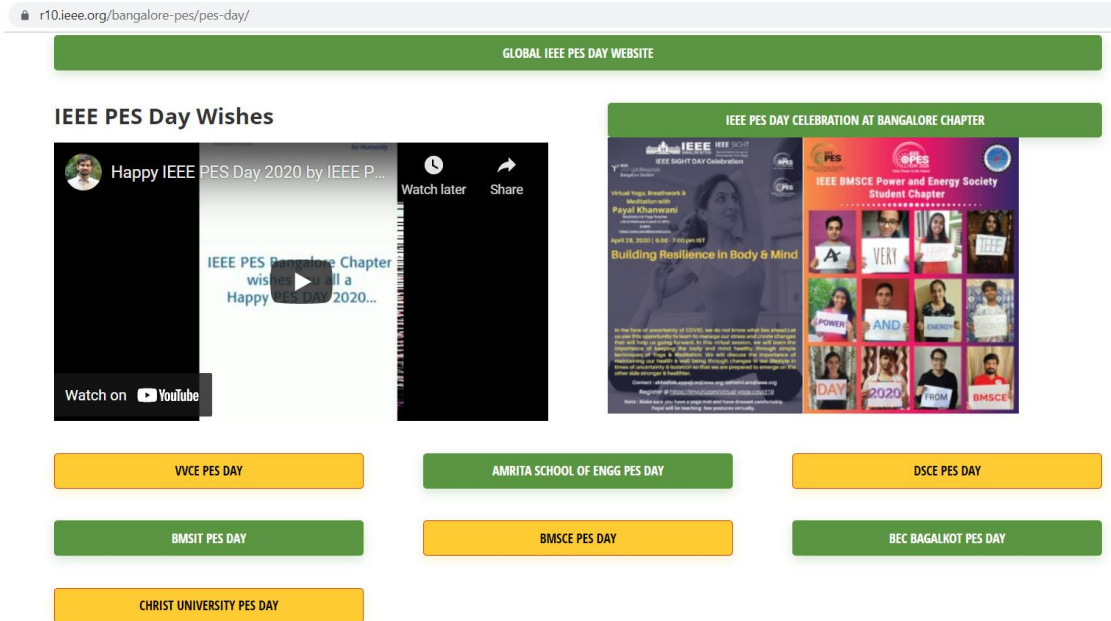
DAY 3 : 05/08/20

<p>4.30 - 5.00 PM</p> <p>Effective Online Technical skills development for academia and Industry collaboration</p> <p>Dr Abhishek Appaji Institutional Coordinator for R&D (ICRD) BMSCE</p>	<p>5.00 - 6.00 PM</p> <p>Panel Discussion on Industry academia engagement post-COVID</p> <p>Mr. S. Rajashekar, IEEE PES Bangalore chapter Chair Elect, Engineering Manager at Open Systems International, Bengaluru, Karnataka, India</p>	<p>MODERATOR</p>
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Picture 13: Speakers and Topics in IAC-2020

2.b.2 IEEE PES day celebrations

The IEEE Power and Energy Society, Bangalore Chapter celebrated PES day in April 2020. All student branch chapters are actively participated in PES day celebration and uploaded the information in ieee website.



Picture 14: IEEE PES day celebrations by IEEE PES Bangalore Chapter



2.c TECHNICAL ACTIVITIES

2.c.1 Student branch Advisors and Chairs meet

Organized by : DAYANANDA SAGAR COLLEGE OF ENGINEERING, Bengaluru, India
Date : February 29, 2020
Mode : Physical meeting

The faculty advisor meet was organized by IEEE PES Bangalore chapter to provide a platform for all the faculty advisors IEEE PES student chapters and respective student chairs to interact with each other and plan for the activities for the year ahead.

Dr Vidya H A welcomed the gathering, the ExeCom members to the event. Dr P Usha Welcomed the ExeCom members onto the dais to start the event.

The main points discussed as part of the faculty advisor meet were:

- The need for active participation from all the IEEE PES Student chapters
- The use of v-tools for reporting was briefly discussed and demonstrated by Dr. Chandrasekhar Reddy Atla.
- The challenges faced by some of the student chapters were raised and discussed.
- The flag ship events of IEEE PES Bangalore chapter were discussed, and the student chapters were requested to send their interest to conduct the same, along with the budget to Execom.

The flagship events of IEEE PES Bangalore Chapter are proposed to be held at:

- ❖ YRM → Central University of Karnataka, Bengaluru
- ❖ Student Congress → BMS College of Engineering, Bengaluru
- ❖ WIPE → Vidyavardhaka College of Engineering, Mysuru
- ❖ Industry – Academia Conclave → The Amrita School of Engineering, Bengaluru



Picture 15: Student branch advisors and Chairs meet

2.c.2 PES Student Congress

Organized by : BMS College of Engineering, Bengaluru, India

Date : August 28-30, 2020

Mode : Online

BMSCE IEEE Power and Energy Society in collaboration with IEEE PES Bangalore Chapter hosted the **IEEE PES Student Congress 2020** on 28th, 29th and 30th of August 2020. The following are the brief reports of the events conducted as a part of IEEE PES Student Congress 2020.

1. Keynote 1

As a part of IEEE PES Student Congress 2020, BMSCE IEEE Power and Energy organized a Keynote talk on “Design Thinking” on August 28,2020, from 10:30 AM - 11:30 AM. We had Atheeth Shivalinga Prasad as the speaker, who is currently a research scholar at CPDM, IISc Bangalore.

No of participants attended: 60

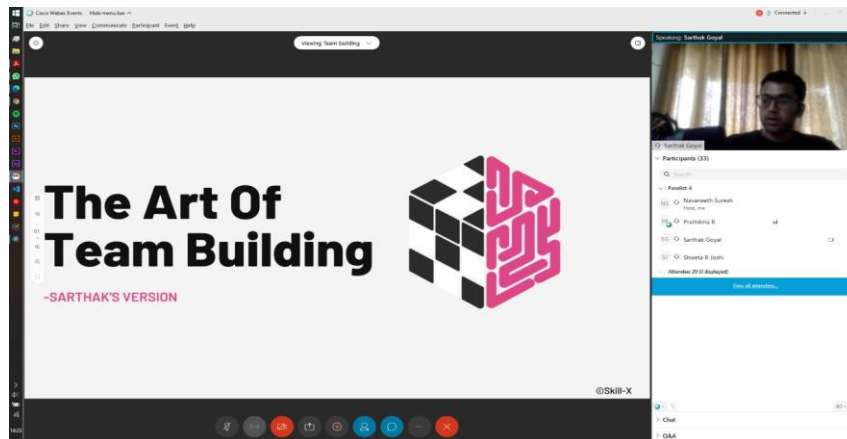


Picture 16: Keynote-1 on 'Design Thinking' during Student Congress-2020

2. Keynote 2

Keynote talk-2 on “The art of team building” was conducted on August 29, 2020, from 2 PM to 3 PM. We had Sarthak Goyal as the speaker, who is the Security operations center specialist at Akamai Technologies and the Co-founder of Skill-X.

No of participants attended: 45



Picture 17: Keynote-2 on 'The art of team building' during Student Congress-2020

3. Panel discussion 1

On the first day after Keynote, a panel discussion on “Impact of social media on human behavior and society” was organized on August 28, 2020 from 3 PM to 4 PM.

We had distinguished panelists as a part of our Panel discussion:

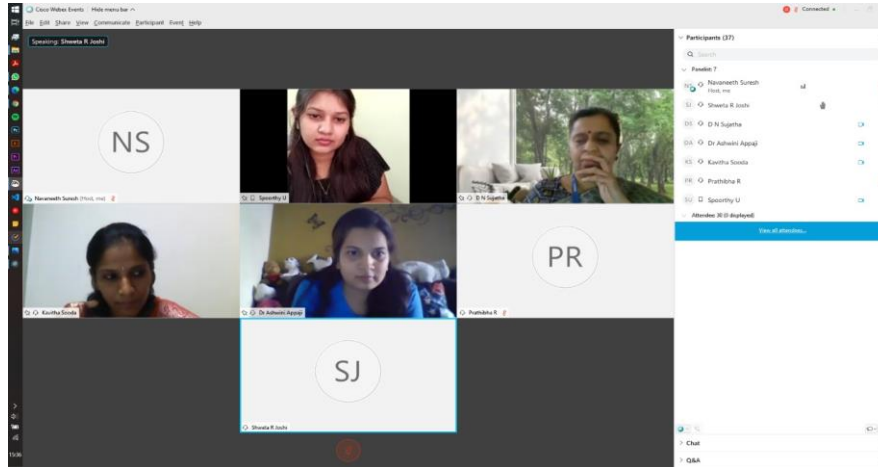
Dr. D N Sujatha, Professor, MCA department, BMSCE

Dr. Kavitha Sooda, Associate professor, CSE department, BMSCE

Dr. Ashwini Appaji, Chairperson at IEEE Young Professional, Bangalore Section

Spoothy U, Student representative, pursuing bachelor's in psychology.

No of participants attended: 40



Picture 18: Panel discussion-1 on 'Impact of social media on human behavior and society' during Student Congress-2020

4. Panel discussion 2

On day 2 of IEEE PES Student Congress, a panel discussion on “Sustainability and development of startups post COVID19” was organized August 29, 2020, from 4 PM to 5 PM.

We had some of the experienced panelists as a part of our Panel discussion:

Rajashekhar S, Engineering Manager, OSI

Udayakumar Birje, Co-founder and director of ThinkStreet Technologies

Parag thakre, Managing director at Dennemeyer Group India

Arun Narayan, Chief Product Officer at Kapius

Ananth Srinivasan, Vice president at V-TIC Services Inc.

Amit Jain, Founder and CEO of corporate COSMOS

No of participants attended: 45



Picture 19: Panel discussion-2 on 'Sustainability and development of startups post COVID19' during Student Congress-2020

These events were followed by an online networking session and the event concluded by feedback sessions.

2.c.3 Young Researchers' Meet (YRM)

Organized by : Central University of Karnataka, Bengaluru, India
Date : November 18-19, 2020
Mode : Online

The young researcher's meet (YRM) is the flagship event of PES-IEEE Bangalore section chapter to evoke desire among young researchers to play a major role in scientific progress in areas of power and energy systems.

It is an interactive lecture series devoted to the discussion and the interchange of novel ideas in the field. The main purpose of this program is to provide a platform for young researchers, both experimentalists and theorists, to interact and form collaborations across different domains of Power and Energy Systems.

Due to the widespread pandemic of COVID-19 and to ensure the safety measures, the event was planned the event in online mode for 2 day with 5 sessions with a registration of 111 delegates, 16-volunteers, 3-advisors, 7-speakers in total.

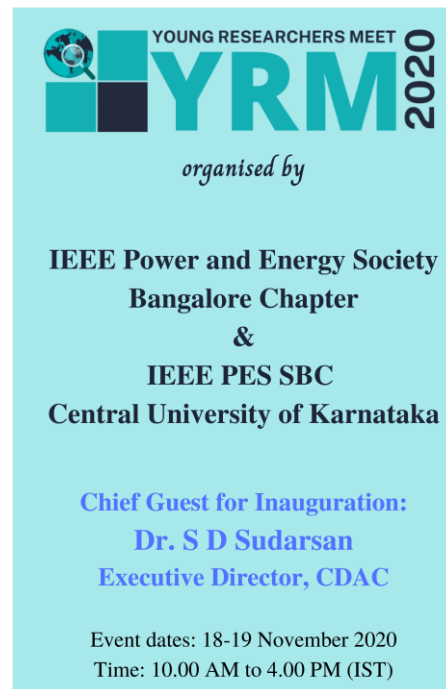
DAY-1:

There were two sessions. The first half of morning session started with inauguration and the guest note was addressed by Dr. SD Sudarshan, Executive Director CDAC. Later, from 11:00AM-12:00PM a session was taken by Dr. Gurunath Gurralla, Assistant professor in Department of Electrical Engineering at IISC Bangalore. His research includes smart grid, power system stability, micro grid control, and many more.

Participants got benefitted with his talk on "How to do research in power engineering". The second half has two mentoring sessions. One was on application of Power electronics in power systems by Dr.Sanjeev Nayek during 2:00PM-3:00PM. Later from 3:00PM-4:00PM a mentoring session was carried by Dr. Balakrishna on Renewable integration. He is currently working as Senior Lead R&D engineer at Office of Innovation, GE Grid Automation, at Hyderabad Technology Center, India in Smart Grid domain.

DAY-2:

The morning session started with welcome note and introduction of NKSS Chair by Dr. Santhosha A . The first session was addressed by NKSS Chair Dr. Suresh H Jangamashetti. Dr. Balakrishna P and Dr. Manjunath Rao are presented the research areas in recent industrial developments. The afternoon session started by Prof Dattatreya Gaonkar from 2:00PM-3:00PM, where he discussed the recent trends of innovation in smart grid. The participants were introduced to one of his significant projects which include an Investigation on the Operation & Control of Multiple Distributed Generation resources in a Micro grid (Phase-I and phase II). Later from 3:05PM-4:00PM another mentoring session was carried by Prof Kishan on the topic Electric Vehicles.



Picture 20: Young Researchers Meet-2020



2.c.4 Women in Power Engineering program

Organized by : Vidyavardhaka College of Engineering, Mysuru, India
Date : November 6-7, 2020
Mode : online

The PES flagship event was conducted by Department of EEE, Vidyavardhaka College of Engineering IEEE PES Student branch, Mysuru, in association with IEEE PES Bengaluru Chapter on November 6-7, 2020. It was a two-day event with participants from the universities across the Country such as RTMU, Nagpur, JNTU, Hyderabad, KEL, REVA, Dayanand Sagar, BMSCE, VTU, JSS, VVCE, VVIET and many more.

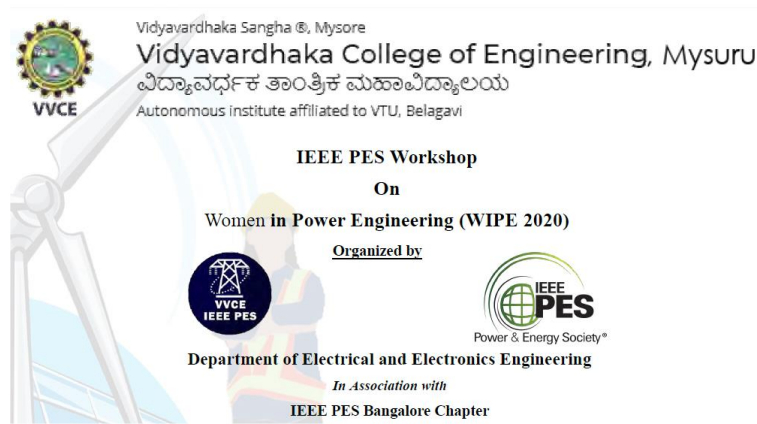
DAY-1:

The speaker for Day 1 on the theme “PES women in Power Electric Utility Crossroads” was Dr. Celia Shahnaz, SMIEEE, Fellow IEB, Chair of IEEE Bangladesh Section 2020, currently a Professor, Department of EEE, BUET, Bangladesh. On November 6, 2020, the event started at 6:00 pm with 45 participants by an address to the gathering given by the Vice Chair of IEEE PES Bengaluru Chapter Dr. Hariram Sathish, Principal scientist ABB Bengaluru and then an address by Principal of VVCE Dr. B Sadashive Gowda. The presentation discussed the workforce transition that is needed given the significant industry changes that are underway. Business model changes, the importance of diversity to successfully innovate, knowledge management and impact on corporate culture are the topics that were discussed to build the next generation workforce. The speaker touched various areas of ENF Fingerprint technique, various activities and events like conference, seminar, project presentation, Humanitarian activity etc. conducted under IEEE PES WIP by various SB was also highlighted that filled the audience with an urge to actively participate and be productive. The interactive session after the talk helped the participants to understand the importance of women in technical sectors. The event concluded at 8:00 pm.

DAY-2:

On November 7, 2020 the event started at 6:0pm with 25 participants on the theme “Nurturing PES women through career advancement, networking and education”. The talk was given by Staji Wilson an Assistant Engineer at Tata Consultancy Services (Telecom), Bengaluru, India. She served as the IEEE PES Day India Lead 2020. The speaker started with a brief introduction about IEEE WIP and the various opportunities and benefits one can grab by being a member. She talked about how IEEE Power and Energy Society Women in Power fosters a more diverse leadership by supporting the career advancement, networking and education of women in the energy industry and it aims not only on increase in number of women in the power industry but also promote women into leadership position as well. In the interaction session the speaker answered most of the questions logically by giving personal experience as an example. The event ended successfully at 7:00pm with a feedback talk given by Dr. Chandashree Das, Associate Prof. BMS College of Engineering Bengaluru and representative of

women in Power IEEE PES Bengaluru section. The talk was indeed very informative and the scope for research, importance of women in Power sectors and STEM was clearly highlighted.



Picture 21: Woman in Power Engineering-2020

2.c.5 Technical Talks

There were a few technical talks organized in the year 2020 for the benefit of students, researchers, and industrial members. These talks were organized by IEEE PES Bangalore chapter. The technical talks organized by student branches as part of their branch activities are not listed here. The summary of technical talks as webinar (online mode) are tabulated below:

S No	Host	Speaker	Topic	Date
1	IEEE PES Bangalore Chapter	Mr. Bhargav N, OSI, Bengaluru	Substation Automation and IEC 61850	March 26, 2020
2	IEEE PES Bangalore Chapter	Hitender Vigamal, ABB	E-Mobility: Future of sustainable mobility	April 09, 2020
3	IEEE PES Bangalore Chapter	Praveen Dadhich, Director, SavEn India Energy Management Pvt Ltd	Use of IOT and Data Analytics/Machine Learning in Energy Efficiency	April 16, 2020

S No	Host	Speaker	Topic	Date
4	IEEE PES Bangalore Chapter	Prof. Saifur Rahman	How to write an effective Technical paper	August 6, 2020
5	IEEE PES Bangalore Chapter	Dr Surender Reddy Salkuti	Optimal Operation of Power Systems with Renewable Energy Sources and Energy Storage	August 30, 2020
6	IEEE PES Bangalore Chapter	Dr Sudipta Ghosh	Transient Stability Assessment and Online Coherency Based Wide Area Damping Controller	October 11, 2020
7	IEEE PES Bangalore Chapter	Prof Sairaj Dhople	Future Sustainable Power Systems	Nov 01, 2020

3 MEMBERS

3.a MEMBER AWARDS/RECOGNITION/NOMINATIONS

3.a.1 Outstanding Service Award (OSA)

IEEE PES Bangalore chapter recognized the services of **Babu Narayanan M M** who held various positions in industry, in the power engineering field and presented him with "Outstanding Service Award". This is an annual award which is given to an eminent engineer for the services in the field of Power Systems in Karnataka (under the jurisdiction of Bangalore chapter). The financial support for this award was supported by Power Research & Development Consultants private Limited.



Picture 22: Prof. N. Srinivasan, Recipient of the Outstanding Service Award

3.a.2 Outstanding Engineer Award (OEA)

There were two awards given in the category of OEA, one for who has up to 15 years of experience and the other for more than 15 years of experience contributing for the power and energy engineering. **Dr. Kannan Tinnium** was presented OEA award for the above 15 years of service category, for his immense contribution to Power and Energy engineering field and his leadership role in the growth of IEEE PES Bangalore chapter. **Dr. Manohar Singh** was presented with the “Outstanding Engineer Award” (up to 15 years’ service category) for his immense contribution to Power and Energy engineering field.



Picture 23: Dr. Kannan Tinnium, Recipient of the Outstanding Engineer Award (more than 15 years)



Picture 24: Dr. Manohar Singh, Recipient of the Outstanding Engineer Award (less than 15 years)

3.a.3 Outstanding Chapter Volunteer Award

An “Outstanding Volunteer” award has been bestowed upon Dr. Abhishek Appaji for his exceptional and wholehearted voluntary services to IEEE PES Bangalore chapter.

3.a.4 Best Student Branch Award

IEEE PES Bangalore chapter started giving this award to motivate the best performing Student Branch in the Jurisdiction. BMS Collage of Engineering, Bangalore received the best Student Branch award for the year 2020 based on their contribution in this field of engineering.

3.a.4 Best Student Volunteer Award

IEEE PES Bangalore chapter has introduced this year to motivate the best performing Student volunteer for student branch activities in the Jurisdiction. Mrs. Prathiba, BMSCE and Mr. Anket, GAT, best Student Volunteer Award 2020 based on their volunteer contribution in this field of engineering.

3.a.5 Recognition of IEEE PES Student Chapters

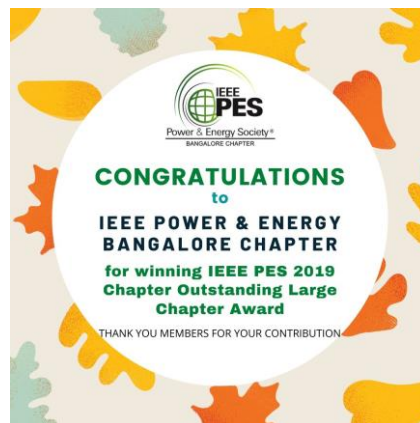
10 of the IEEE PES student branches under chapter are recognized globally and ranked in top 50.



Picture 25: Global recognition of IEEE PES Student branches

3.a.6 Other awards received by the chapter

The chapter was awarded a **winner's position at 2019 IEEE Outstanding Chapter Awards**. It also received the **HPCP Award – 2019**.



Picture 26: IEEE PES Bangalore Chapter Won Outstanding Large Chapter Award for 2019

3.b MEMBERSHIP ADVANCEMENT

As a standard practice, the chapter assigns one of the executive committee members as the lead for membership enhancement and one for overseeing student membership enrollment and adding more student chapters. IEEE PES Bangalore Chapter is collaborated with IEEE Bangalore section on SIMPLE, membership up-gradation program to promote Senior membership.

3.c MEMBERSHIP GROWTH / RETENTION

In 2020, the chapter had 1046 members of whom about 81 were senior and life members.

Select OU of your Volunteer Role			Region	Grade	IEEE Status
Bangalore Section Chapter, PE31			R10	(All)	Active

Count by Region and Grade					
Region	Council	Section	Grade Category	Grade	Total
R10	India Council	Bangalore Section	IEEE Grades	Associate Member	3
				Graduate Student Member	61
				Life Fellow	2
				Life Senior	2
				Member	135
				Senior Member	77
				Student Member	760
			Other Grades	Affiliate	5
			Total	1,045	
				Madras Section	IEEE Grades
	Total			1	
Total					1,046

Picture 27: List of IEEE members as on December 20, 2020

The chapter has actively participated in the IEEE Bangalore chapter's initiative for Senior Member Elevation. The chapter has prominently promoted and endorsed IEEE at every major technical and student chapter event to attract undergraduate students as well as experienced engineering professionals.

4 CHAPTER OPERATIONS

4.a CHAPTER WEB PAGE

IEEE PES Bangalore has an active web page, which is continuously updated under the guidance of one of the ExeCom members.

<https://r10.ieee.org/bangalore-pes/>



4.b COMMUNICATION

The Chapter extensively uses the IEEE Voluntary tools for the communication. Events and eNotice are regularly used. WebEx calls are used to enable members who cannot join F2F meetings and to setup tele conferencing for quick meetings. IEEE drive is used for sharing artifacts and as repository.

4.c PES ONLY (non-joint) CHAPTER

Bangalore Chapter with nearly 220 members is a PES only chapter and falls under large chapter category.

5 OTHER ACTIVITIES

Creat-a-thon is an annual hardware hackathon contest conducted by the IEEE PES DSCE student Chapter and supported by IEEE PES Bangalore Chapter.

During the event, the participants are invited to build and implement their idea at the venue in a given time. In the year 2020, due to the restrictions in conducting physical event, the event was conducted in the online mode. The theme for the year was “Safety Measures during and Post Pandemic” in the following locations.

- Office workspace Safety
- Educational Institute Safety
- Transport Safety
- Hospital Safety

The participants were required to register and submit their abstracts within the given deadline. The teams shortlisted in this round were required to submit the ideas in detail, along with a video showing a simulation or working of their idea. Teams shortlisted from this round were required to give an online presentation of their ideas, describing the technology and how it would benefit practically along with any simulation or implementations that they might have done.

The final presentation was held on 28/11/2020. The event was judged by Dr. Pankaj, Founder at Cutting Edge Medical Devices Pvt. Ltd, a contact provided by the DERBI foundation.

Submitted on behalf of IEEE PES Bangalore Chapter by:

Mr. Rajashekhar Raju

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