



IEEE

IPRECON 2020
2020 Outstanding IAS SBC Advisor Award
IEEE Regional Exemplary SB Award 2020
IEEE MGA Outstanding Branch Advisor Award 2020

ANNUAL REPORT 2020



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IAS ANNUAL REPORT 2020

1. Annual General Meeting-2020

IEEE Student Branch College of Engineering Karunagappally organized the Annual General Meeting (AGM) on 20th August 2020 at 6 pm. Conducted virtually, the welcome address was delivered by Mrs. Haseena P Y (Assist. Prof. EEE dept. CEK), the newly elected student branch counsellor of IEEE SB CEK. She announced the official Execom 2020 and the office bearers of IEEE SB CEK. The newly elected Advisor of the Student Branch, Mrs. Sabeena K (Assist. Prof. CSE dept.) then spoke about the activities organized under different societies of the student branch, the achievements and awards received in the year 2019. It was followed by a talk by Mrs. Remya (Assist. Prof. CSE dept.), sharing her experience in working with the Student Branch and the involvement of volunteers in all the accomplishments. All the previous Execom members then shared their experiences, their volunteering activities and the role of IEEE in building professional life, motivating junior students to join IEEE. It was followed by a session by Mr. Anandhu S Kumar, mentor of IEEE SB CEK, where he congratulated the newly selected Execom, explaining the role of IEEE in molding their professional lives and the responsibilities they have to undertake. The meeting was concluded by Ms. Amitha Nair, the current Chair IEEE SB CEK.

The following students were selected as the 2020 Execom members of IEEE SB CEK.

Positions	Office Bearers
SB Counsellor	Mrs. Haseena P Y
SB Advisor	Mrs. Sabeena K
SB Advisory Board Member	Mr. Raju M
SB Mentor	Mr. Anandhu S Kumar
SB Chair	Ms. Amitha A Nair
SB Secretary	Ms. Rafiya Al Ebrahim
SB Vice Chair	Mr. M K Varun
SB Treasurer	Ms. Anjana Aruldas
Webmaster	Mr. Cliffin Cletus

Webmaster	Mr. Akash A
Design Lead	Ms. Deepa Girija Pillai
Technical Coordinator	Mr. Abhiram R K
Activity Coordinator	Mr. Rahul V T
ECC	Mr. Sudeep P H
PES	
Mentor	Mr. Hari Prasad
SBC Chair	Ms. Riya Elizabeth
SBC Vice Chair	Mr. M K Varun
SBC Secretary	Ms. Rafiya Al Ebrahim
IAS	
Mentor	Mr. Jayaraj N R
SBC Chair	Mr. Amitha A Nair
SBC Vice Chair	Mr. Mohammad Niyas
SBC Secretary	Mr. M K Varun
RAS	
Mentor	Ms. Sajna Mohammad
SBC Chair	Ms. Anjana Aruldas
SBC Vice Chair	Mr. Alister Clietus
SBC Secretary	Mr. Aaron Sanju Eappen
WIE	
Mentor	Ms. Sherin Cherian
SBC Chair	Ms. Jemi Jose
SBC Secretary	Ms. Riya Elizabeth
CS	
Mentor	Mr. Akshay Krishnan
SBC Chair	Mr. Hari Krishnan
SBC Vice Chair	Mr. Abhinav M
SBC Secretary	Ms. Jemi Jose

NPSS/PELS jt. Chapter	
Mentor	Mr. Akhil Ahammed
SBC Chair	Mr. Cliffin Cletus
SBC Vice Chair	Mr. Vishnu S
SBC Secretary	Ms. Deepa Girija Pillai
PHO/MTTS/SSCS/SPS jt. Chapter	
Mentor	Ms. Sherin Cherian
SBC Chair	Ms. Deepa Girija Pillai
SBC Secretary	Ms. Vishnu Priya

2. Design Workshop Series

UX/UI Designing Workshop – 1

A workshop on UX/UI designing was held on 28th January 2020 in the computer programming lab (A block) from 4:30 pm to 5:30 pm. The workshop was handled by Mr. Hari Prasad (PES SBC Chair). A general idea on user interface designs and user experience designs, benefits of Adobe Illustrator over Adobe Photoshop and the commonly used tools in Adobe Illustrator were discussed in the session. The interactive hands-on designing workshop was a new experience for the students. By the end of the session, they were familiar with the tools and its functions in Illustrator. 23 students attended the workshop.



UX/UI Designing Workshop – 2

A continuation of the Design workshop series, the second part of the UX/UI design workshop was organized by IEEE Student Branch, College of Engineering Karunagappally on 31st January 2020 in the computer programming lab (A block). The workshop was handled by Mr. Hari Prasad (PES SBC Chair) from 4:30 pm to 5:30 pm. Concepts of creating a visually stimulating graphical layout that a user can

comfortably interact was explored in the workshop. Advanced application of tools, editing and basics of vector drawing were also discussed in the session. A total of 28 students attended the workshop.



3.Virtual Meet (1) (Execom and Organizing Committee) – IPRECON 2020

IEEE Student Branch College of Engineering Karunagappally in association with Industry Applications Society organised a virtual meet on 6th April 2020 from 5:30pm-7:00pm (+IST) through the platform Google Meet. The meeting was initiated by Akshay Krishnan, Chair IEEE SB CEK to define the terms and priorities to be dealt with for the upcoming Global Conference, **International Power and Renewable Energy Conference 2020 (IPRECON 20)**. The meeting mainly focused on the **paper submission, the numerical values already submitted, the further expected papers and to categorize each according to their respective fields**. All the Execom members as well as the advisor and counsellor of the SB attended the meeting to gain an overall updates of the process and suggested their own ideologies on how the whole team can work efficiently to scrutinize all the papers. The meeting ended with Mr. Akshay preparing the mind-set of the whole team to work hard and make the conference a grand success.

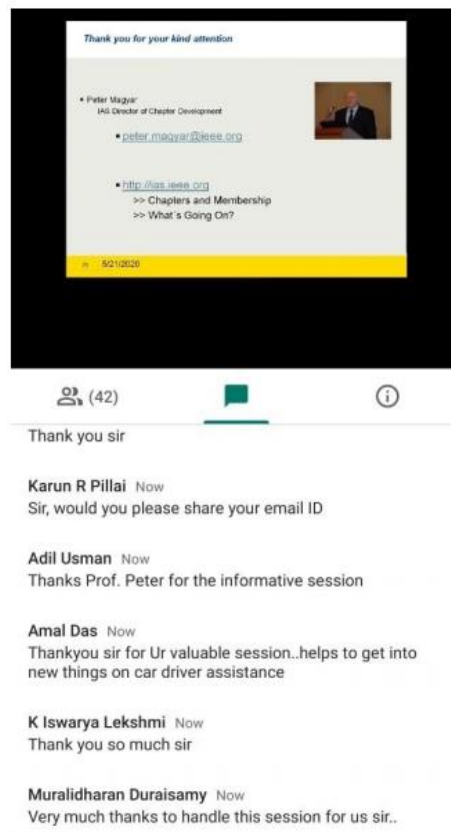
4. Webinar on Car Driver Assistance System

IEEE Student Branch College of Engineering Karunagappally in association with Industry Applications Society conducted a webinar on Car Driver Assistance System by Dr. Peter Magyar, Director IAS Chapter, Development Past Chair, IEEE IAS CMD on 21st May 2020 at 7:30 pm.

A full-fledged informative session by such a well-established and experienced individual was indeed highly awaited. In his allotted time, Dr. Peter managed to quite effectively envelop all the major spectrums relevant to his topic. He started off with basic mechanisms of Driver Assistance System and even gave a brief overview of Advance Driver Assistance System. His presentation slides were quite enticing as they enrolled the fundamentals of the images of certain systems and their protocols. A

spotlight was also given to Parking Assistance as even some of the experience drivers at times might struggle with parking their vehicles due to numerous restrictions that might come up. He explained how these automated systems use certain special scanning systems to bring about its smooth functionality. While talking about the automated ideology, the intelligent headlights were introduced and its basic working was explained to the students. Dr. Peter focused on the importance of protecting one’s vehicle amidst the turbulence of crime and portrayed few techniques of owner identifying camera to avoid robbery. One of the most astonishing part of the session was the servomechanism of the cruise control. The idea was known to most of the students however the simplicity behind such an innovation was something that they looked forward to learn more about.

The overall session can be marked as an imprinted success as the number of attendees was around 62, evident of the fact that the session was able to open the creative portal in the student’s mind. The attendees gave enormous positive feedbacks encouraging us more to organize such technical seminars.

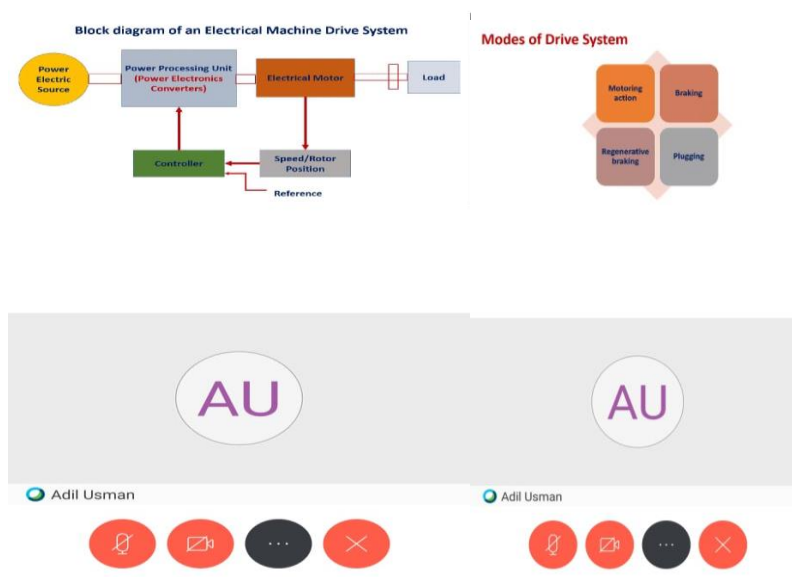


5. Webinar on “Emerging trends in Electrical Machines Drives: Design and Application ” by Mr. Adil Usman

IEEE Student Branch College of Engineering Karunagappally firmly believes in imparting enriched knowledge resources to the youth and clasping onto every opportunity that might help achieve the target. One of the clawed-in effort was taken up as *IEEE SB CEK* in association with *Industry Applications Society* organised a webinar on “**Emerging trends in Electrical Machines Drives: Design and Application** ” by **Mr Adil Usman**, Senior Member IEEE, Phd Ilt Mandi, Chair IEEE MGA-SAC -SPC (R1-R10), Member IAS-PES Electrical Machinery Committee 2020 on 27th May 2020.

The backbone of the topic seemed quite enticing and evidently proved to be more amusing as Mr. Adil stepped in deeper to expose the true insight of his session. First off, he explained the purpose of such an electric drive system through detailed graphs and block representation for the better understanding of the attendees. He explained the basic individual components needed in such a system including power converter, load, electrical machine, controller (Field Programmable Gate Array). He gave an overview on various modes of such systems and specified various applications of each mode. The speaker quite effectively blended in with the technical restrictions and demands, his ideas of increasing the system's performance by the selection of electrical drives. As the concepts of such a system became clear, he moved on to the development of advanced electrical drive systems using brushless synchronous motor and FPGA based controller, and explained each and every basic component constituting them. Mr. Adil gave an overview of the modelling, working and flow of the whole system using various diverse diagrammatic block representations with detailed functioning and graphs.

The session was quite a revelation on the elevating developments in technology with attendees being around 74. The participants dynamically participated to calm out their curiosities and entangle their doubts. Empowering sessions like this involving experienced and established personalities are indeed to look forward to as their footsteps are going to lead us to the unimaginable innovations.



6.Virtual Meet (2) (Execom and Organizing Committee) – IPRECON 2020

A virtual meet through Google Meet was organised by **IEEE Student Branch College of Engineering Karunagappally in association with Industrial Applications Society** on **14th June** from **6:30pm-7:30pm(+IST)**. The meeting was a continuation of the first meet held at 6th April, to have a brief discussion on the updates of **IPRECON20**. The general chairs of the event, *Mr. Akshay Krishnan, Chair IEEE SB CEK* and *Mr. Hari Prasad, Chair PES IEEE SBC CEK* discussed with the team members and the involved faculties about the camera-ready submissions of the papers. They portrayed the whole process and emphasized on the fact how deadlines are to be taken seriously in such cases else the papers might get rejected. The team members were told how important it is to mail the participants



a vivid request to focus on the same. All the members took important notes of the conversation and seems quite attentive.

7.Virtual Meet (3) (Execom and Organizing Committee) – IPRECON 2020

A third meeting regarding the **updates of IPRECON 20** was organised on the virtual platform Google Meet by **IEEE Student Branch College of Engineering Karunagappally in association with Industry Application Society 12th July from 7:00pm-8:00pm(+IST)**. The meeting illuminated the currently expected graph of registration count as well as the corresponding prices. The mentors stated the fact how registration forms the core of all the plotted strategies and that it is necessary to publicise the event as much as possible. The team members discussed the pros and cons of various schemes regarding the registration and formed a firm plan to enhance the level of involvement of people all over. A rough sketch of impending registration and its compatibility with the pricing was estimated, followed by the advisor concluding the meeting with her appreciation for the students to be so hard working.

8. Webinar on Decision points in Career and Life and being a volunteer

IEEE Student Branch college of Engineering Karunagappally in association with Industry Applications Society organised a webinar on **Decision points in Career and Life and being a volunteer** by **Anthony C. Davies**, Military Service, British Army, Region 8 History activities coordinator, on **20th July 2020** at 7:00 pm(+IST). His session began with him presenting the slides that comprised his bio, his achievements as well experiences.

He focused mainly on the importance and need of career decision points that can literally upturn our lives in seconds. He mainly targeted at making the students realize that it is okay to be confused sometimes when we have a plethora of opportunities however that one must never give up and just follow the heart's desires strategically to reach their goals. He recalled well known fact that how decisions to control our lives in totally in our own hands. His presentation slides were quite enchanting they enrolled the fundamentals of the various stories, and proven examples that made his view-point stronger. He explained the fast track career growth for people who love challenges, are ambitious and want to push their limits. He discussed the trade-off between a well-paid job and a well-loved job and how to mitigate the stress in certain situations. He also discussed how volunteering affects our life and how being a Volunteer focuses on nurturing such networking with people from divergent backgrounds, building others' capacity as well as how it is an explicit platform for one's own technical and character development.

Most astonishing part of the session was about the topic "Young and dynamic culture" wherein he conveyed the importance of time and hard work and also about the persistence and patience one might need to improve in the respective work environment .We take off to mountains or beaches to recoup at least once a year and ensure we get together at the end of each quarter, and that is how he managed to express the firm belief that the work environment has to be balanced and made flexible by one's own perspective.

The number of attendance was around **62**, and hence the session was effectively able to offer an awareness about new opportunities and the purpose of Volunteering as it offers essential help to worthwhile causes, people in need, and the wider community. The participants gave enormous positive feedbacks encouraging us more to organize such technical seminars.

9. Webinar on Technical challenges in the Development of Jupiter Bond Interplanetary Space craft

Amidst the turbulent strike of the pandemic, virtual webinars are indeed a boon to the technically aspiring students as well as scholars. The students through all the bounding restrictions and challenges, claimed the knowledge through virtual platforms while the industrialists and professionals seem quite enthusiastic to furnish the spectrum of student’s interest through their experience and their career-counselling.

IEEE Student Branch College of Engineering Karunagappally intends to relish the numerous portals in the scientific field which could add an overwhelming experience for the attendees and therefore IEEE SB CEK in association with Industry Applications Society conducted a webinar on **Technical Challenges in the development of Jupiter Bond Interplanetary Space Craft** by **Pablo Narvaez**, Principle Engineer, Section 513 Manager ,Reliability Engineering and Mission Environment Assurance , Jet Propulsion on 30th July 2020 at 7 pm (+IST).

The session was informative beyond expectations as Mr. Pablo utilized his experience in the field of Space Science and Jet propulsion while provided key elements in Exploration and Space craft. Within his allotted time, he managed to quite effectively envelope all the major spectrum relevant to this topic. He started off with GPS RF sub systems and its critical functions for space craft and positioning in orbit. His Presentation slides was absolutely brilliant in which he included the 3D overview of several fundamental bodies in space and other images of instruments.

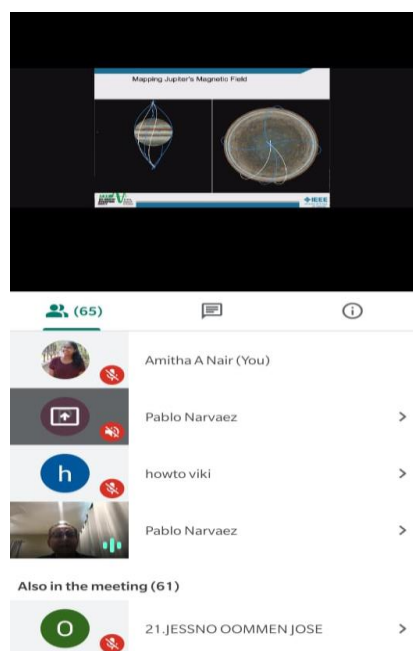
The lecture discussions comprised of the trending topics like wireless, other communication system modelling as well as the classical electromagnetic emissions and their applications. The spotlight

spread around as he explained the elementary PCB design for modelling with the approach of pulse Rise through Pico seconds. He was quite aware of making the attendees understand that he as well as the team had undergone through lots of challenges and shared his experiences and overview of several space missions organised under several Space organizations such as NASA.

The attendees were absolutely mesmerized as all their doubts regarding different modelling design to control of electric and magnetic systems and as they deeply learned how to plan and organize such missions through Mr. Pablo’s own experiences. He inspired all the attendees who wish to study space science and missions by his interactions and life examples. The overall session was an incredible success as the number of attendees were around **65**.

The Q/A sessions were very interactive wherein the students and the SB team expressed their gratitude to Mr. Pablo Narvaez for all his contributions and efforts while the latter expressed his pleasure to be able to mentor the youth!

Such interesting topics about the intergalactic universe are indeed what the students need in today’s world. As the theoretical and practical involvement are deep seated into the respective fields, the students often don’t get enough opportunities to explore the mystical realms of science and therefore the virtual session indeed was a golden wing that led the students towards a flight of unravelling truths and technicalities.



10.Virtual Meet (4) (Execom and Organizing Committee) – IPRECON 2020

IEEE Student Branch College of Engineering Karunagappally intends to add a “Humanitarian Track” in the Global Conference IPRECON 20 in association with Industry Applications Society. The meeting was conducted on **9th August from 4:30pm-6:00pm (+IST)**. The team members expressed their curiosity and interest to be involved in a humanitarian platform and to help the overall welfare of a community. The team’s streak of affirmation was evident of the fact that the track had to be involved. The main event as well as sub-events regarding the same was discussed. A whole other committee for the same was formed as well were explained their important roles. For further proceedings, a brief description was demonstrated by the mentors on how to contact certain established personalities for the global networking. The team members were extremely keyed-up while their passion and happiness to change the world was quite astonishing.

11.Virtual Meet (5) (Execom and Organizing Committee) – IPRECON 2020

A virtual meet was conducted within the Execom members by IEEE Student Branch College of Engineering Karunagappally in association with Industry Applications Society regarding certain discussions on IPRECON'20, India's first IEEE IAS CLUB OF 6 Technical Paper Conference on 26th September from 7:30pm - 8:30pm (+IST). The meeting was started off by Mr. Akshay Krishnan wherein he stated the main theme of today's discussion i.e. buying the hosting platform. Since the conference would be quite a high quality event comprising of numerous established personalities in their respective fields from all across the world, it is indeed necessary to have a smooth work-flow. The pandemic situation has prioritized virtual events however with that comes off the responsibility of effective management and strategic back-up plans in case of technical issues. Therefore, discussing all the challenges and a unanimous decision on how and what platform should be bought for the particular decision, the event came to an end. Mr. Akshay Krishnan has quite a lot of experience handling such events while the beaming eyes of the new Execom was quite majestic as they put forth their opinions and without any hesitation asked all their doubts.

12.SHE TECH SERIES 2.0 – PCB Design Using Proteus Software

IEEE student Branch college of engineering KARUNAGAPALLY in association with Women in Engineering Affinity Group and Industrial Application society organised "SHE TECH SERIES 2.0" a 3-day workshop on "PCB Design using Proteus Software". The workshop was handled by Mr. VARGHEESE BENNY Founder and CTO RABBITSQUARE LLP on 2nd, 3rd, and 4th October 2020 under Zoom Meeting platform.

Day- 1

As in the first day the session was started from 6:30 pm and the speaker given a brief introduction to PCB design by sharing some images of different types of PCB's, circuits, boards etc. There were attendees from all branches and from different states. Hence in the first day the speaker just tried to provide all the basics of electronics from component level. He shown sample of various components like resistors, transistors, diodes, led, then higher components like microcontrollers, integrated circuits then board like Arduino, breadboards, PCB etc. He fabricated the session more interactive by asking the specifications of each components as well as it's working then identification of various parts and many of them responded with different varieties of answers. After that he explains the working of some basic components and the session was end at 09:00 pm after discussing all the doubts.

Day- 2

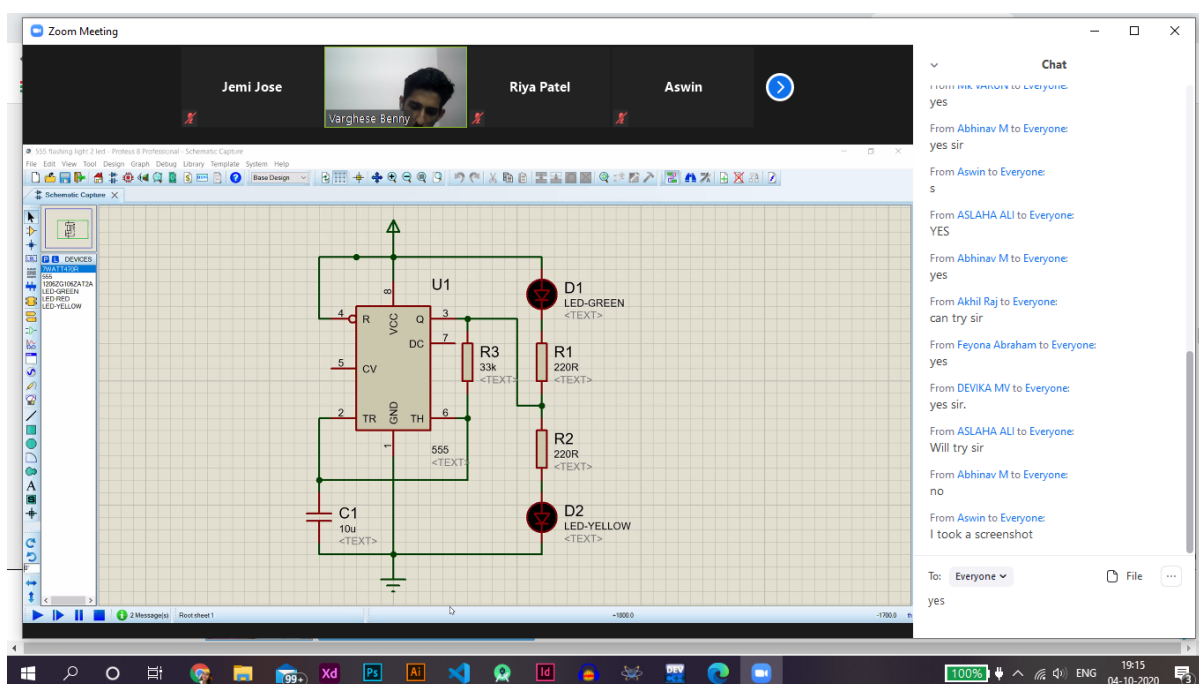
In the 2nd day of the workshop (3rd October 2020) the session was started at sharp 6:30 pm. The session kick offed quickly with the introduction of an idea on materials used in PCB manufacturing its parts functions etc. It sustained with the set out of all the procedures for designing PCB using Proteus software for which he made sure that each attendee installed all the required software and helped to those who faced some problems while starting the software and finally directed in managing to install libraries. Then he made up 5 group of 9 members each by arranging break out rooms were the team members discussed with their ideas and started arranging the components as seen from the circuit diagram. He verified the designs of some of the attendees and discussed with them and corrected all the mistakes and the group session was ended by 8:25 pm. At the end everyone gathered again for discussing and clearing all the doubts individually.

Day- 3

In the 3rd & final day of the workshop (4th October 2020), the session started by clearing all the queries of the previous session individually with the limited time and he grouped them in break out rooms after

assigning tasks. After completion of the designing of some teams, he explained the stimulation and all of them were doing accordingly in the same manner and at last the layout design and circuit was comparably same that of PCB. After the completion of the design at 8:25 pm there was doubt clearing session at the end in which the attendees were so thrilled and they interacted well and apart from the doubts on Designing, software implementation they are keen to know the opportunities of electronics in various IT field as well as core field and lastly then briefly discussed the importance of programming languages to get into core field and explored out the trending fields like IOT Robotics, embedded technology etc. And during the conclusion of the session he shared his experience in the field of consumer electronics and explained how to establish Start-ups etc.

The overall session can be marked as imprinted success and number of attendees was around 50 evident of the fact that the session was able to open a new era of creative portal in student's mind. The attendees also given positive feedbacks in encouraging us more to organize this type of technical workshops more and more.



13.Virtual Meet (6) (Execom and Organizing Committee) – IPRECON 2020

IEEE Student Branch College of Engineering Karunagappally in association with Industry Applications Society organised a virtual Meet regarding the discussion for IPRECON 2020, India's first ever IEEE IAS CLUB OF 6 Technical Paper Conference. The meeting was to discuss mainly about the closing ceremony and to closely analyse the overall schedule and come with prioritized sessions and their smooth handling. The meeting took place on **14th October, 2020 from 5:00pm-6:00pm (+IST)** and focused mainly on the approved key notes and special sessions during the ceremony. To send an e-Notice regarding the same was also discussed in the same.

Since it is supposed to be a global platform, the volunteers exclaimed their excitement and nervousness to be able to represent a Student Branch on such a high level is indeed one of the greatest opportunities. Various tips and guidelines were discussed regarding professionalism and active interaction to build the contacts.



14.2020 IEEE International Power and Renewable Energy Conference (IPRECON 20)

The inauguration of the much-awaited event commenced with Amitha A Nair, Chair, IEEE Student Branch College of Engineering Karunagappally delivering the IEEE Code of Ethics from 4:00 PM (IST) followed by the delivery of welcome speech by Mr. Akshay Krishnan, General chair IPRECON 2020. Mr. Jayaraj N R, General chair IPRECON 2020 delivered the presidential address while Mr. Hari Prasad, Technical Program Committee Chair IPRECON expressed the gratitude for IPRECON 2020 and shared the experiences gained from the journey of IPRECON 2020.. Prof. Georges Zissis, President IEEE IAS delivered the inaugural address followed by the felicitation speech delivered by Dr. V P Jyothiraj, Principal of College of Engineering Karunagappally and Dr. Jaya VL, Former Principal of College of Engineering Karunagappally. The inaugural ceremony turned out to be bounteous with the delivery of felicitation speech from Dr. –Ing. Peter Magyar, Past IAS CMD Chair and Ms Lesley Arakkal, IAS CMD Chair. Dr. Richard Cselko, Chair, Students Technical Events Committee also shared his wise words in the inaugural ceremony of IPRECON 2020. Ms Saradha Jaykrishnan, Chairperson Kerala Section, Prof. Muhammed Kasim S, Former Chairman IA/IE/PELS JT. Chapter Kerala and Dr. K Bijuna, Chairperson IA/IE/PELS JT. Chapter Kerala also delivered the felicitation speech in IPRECON 2020. The vote of thanks was delivered by Ms. Sherin Cherian, Publication Chair IPRECON 2020. The inaugural ceremony came to an end by the 6:30 PM (IST) with an astounding hope and enthusiasm that followed the rest of the conference.

The first imprint of India's first IEEE IAS Club of 6 Technical Paper Conference, **2020 IEEE International Power and Renewable Energy Conference** organized by IEEE Student Branch College of Engineering Karunagappally in association with **IEEE Industrial Applications Society** came to end on 1st November after three days of incessant activities and prolific deliberations of interesting as well as informative ideas. Due to the pandemic the virtual platform has been opted for the conference. The prime focus of the conference was on the challenges, latest developments and future technologies on the field Power and Renewable Energy. IPRECON 2020 received 146 submissions from several parts of the globe, after struck hard review process 36 were selected for the presentation.

The day 1 of IPRECON 2020 mainly comprised the technical paper presentation which was carried out as 2 sessions, inaugural ceremony and a Humanitarian track. At sharp 9:00 am IST the curtain for the first session "**Renewable Energy Resources & Energy Policies and Standards**" raised. The session chair was Dileep Krishna Mathi, Research Scholar, Department of Electrical Engineering, National Institute of Technology, Warangal, India.

Then the most awaited presentation session was started with the paper "Floating Solar Photovoltaic System: An Overview and their Feasibility at Kaptai in Rangamati" by Mr. Raihan Chowdhury and his team. There were also several more presentations in the session from various classes of division, which all are much informative, interesting and highly vibrant with the interaction of presenters, students, research scholars and professionals. It concluded with the SB offering a token of praise to the session chair through a memento.

The second session on the day was on "**Electric and Hybrid Vehicles & Energy Storage & Battery Charging Techniques**", the session chairs being Prasoon Chandran Mavila, Research Scholar, Department of Avionics, Indian Institute of Space Science and Technology, Thiruvananthapuram and



Nirmal Mukundan C. M, Research Scholar, Dept. of Electrical and Electronics Engineering Govt. College of Engineering, Kannur.

The session concluded at 2:00 PM IST by appreciating all the authors and presenters for their hard work and research and the session chairs were rendered a memento each for their cooperation and support.

The 3rd Session of the conference, **Distributed Generation and Grid Interconnection and Power Quality Issues**, scheduled on 31st November 2020 from 10:00 AM – 12:45, had Ms. Grace Sadhana Samuel, Research Scholar, dept. of Electrical Engineering, National Institute of Technology Calicut, as the session chair. With attendees including presenters, students, research scholars and professionals, the session turned interactive with the post-presentation discussions.

The 4th session in IPRECON 2020 was **Electric Machines and Drives**, with Ms. Krishna Kumari K, Research Scholar, Amrita University, Coimbatore, Tamil Nadu, as the session chair. Scheduled on 31st October 2020 from 1:30 PM – 3:00 PM, the session witnessed some exceptional papers that have induced interest in the attendees. The time management and session coordination of the team were also well commendable.

The third day of IPRECON 2020 started with the paper presentation session on **“Power Electronic Converters and Control Systems”**, the session chair was S. Madhu Babu, Research Scholar, Department of Electrical Engineering, National Institute of Technology (NIT), Warangal. The session was started at 10:00 AM IST and was having a total of 7 paper presentations. Thus, the whole paper presentation of IPRECON 2020 was concluded and it was a very interesting session and the paper presented a wide range of new knowledge along with appropriate indigenous or local technologies, many queries were cleared. As a token of gratitude to the session chair for his commitment and for the impulsive suggestions and opinions a memento was awarded to him. The session ended up at 12:00 PM IST.

The closing ceremony was from 3:00-4:00 PM IST wherein Amitha A Nair, Chairperson IEEE SB CEK moderated the ceremony. Mr Jayaraj N R, General Chair IPRECON 2020 welcomed all the respectable guests and attendees and expressed how the ideology and vision of the conference proved out to be extremely in favour of the technical development. Dr. Peter Magyar, past IAS CMD Chair delivered the valedictory address followed by Dr. Richard Cselsko, Chair, Student Technical Events Committee, IAS CMD, Prof. Lillykutty Jacob Chair, Conference Activity Board, IEEE Kerala Section delivering their remarks and feedback for the event. The success of the conference was measured and inferred by the feedbacks and remarks, and a considerable amount of advice was collected from the contributors of the event. A Presentation of another Club of 6 conference to be held in 2021 by NIT-Trichy was taken by Mr. K. Kannadasan, Chairman & Secretary, IEEE student branch, NIT-Trichy wherein he introduced his Student Branch, their ideal vision as well as how they expect to conduct the event. Mr. Akshay Krishnan, General Chair IPRECON 2020 delivered the vote of thanks, he conveyed his gratitude to all the participants, section chairs, speakers all other dignitaries in his capacity as general chair for the conference.



Keynote on “Future of solar PV applications: Bangladesh perspective”

A keynote speech of IPRECON 2020 was primed on **“Future of solar PV applications: Bangladesh perspective”** by Prof. M Rezwan Khan Professor, United International University, Bangladesh. He pointed out some enlightening entities in the field which was appreciated by the attendees and hence was offered a memento as a token for his incredible efforts and support for the event. The session was incremented in every second with a newly updated knowledge which made the day much more countable. Many attendees joined the meet and were curious about the upcoming sessions. IEEE Student Branch College of Engineering Karunagappally offered their overwhelming gratitude to the speaker through a memento.

Keynote on “Developments in Vehicle Electrification”, Dr. Tomy Sebastian

A keynote address on **“Developments in Vehicle Electrification”, Dr. Tomy Sebastian**, Immediate Past President, Industrial Applications Society. The session focused of the relevance of electrified vehicles in the current and future world, sharing some of the developments introduced in various emerging vehicles. The session was incremented in every second with a newly updated knowledge which made the day much more countable. Many attendees joined the meet and were curious about the upcoming sessions. The session concluded with an interactive session, where the attendees were asked to share their queries on the topic. IEEE Student Branch College of Engineering Karunagappally rendered a memento for his exceptional efforts.

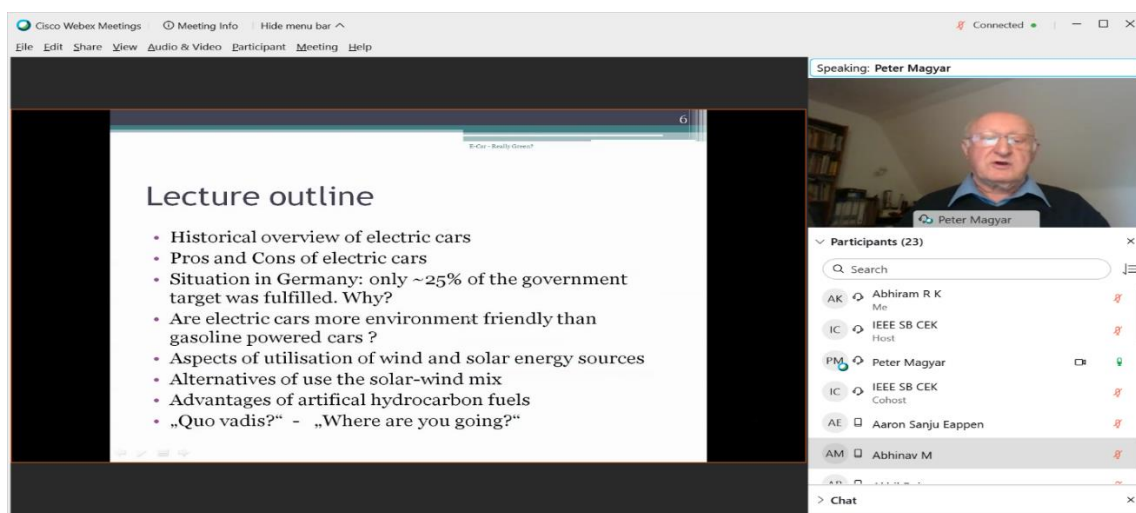
Keynote on Power Electronics - The Key Technology for Grid Integration

The keynote session on **Power Electronics - The Key Technology for Grid Integration** with **Prof. Frede Blaabjerg**, President of IEEE Power Electronics Society (2019-2020) as the speaker. Within a limit amount of time, he was quite efficiently able to point out the crucial points followed by the needs and benefits of power electronics in his sessions. The attendees seemed quite enthralled as his presentations opened up some incredible possibilities of technical advancements for the future.

Overall the session was out of the blue for every individual. IEEE Student Branch College of Engineering Karunagappally offered their submerged gratitude to the speaker through a memento.

Special session on “The Potential of Electricity- Based Fuels of low-emission Transport”

A special session on “**The Potential of Electricity- Based Fuels of low-emission Transport**” was handled by Dr. Peter Magyar, Consultant M&PP, Director of Chapter Development, Industrial Applications Society. It addressed the rising potential and market of renewable and electricity-based fuels in transportation. Not only the students and the undergraduates, but also the professionals involved in an interactive spectrum of questions and challenging solutions.



Poster Presentation

A **poster presentation** under the **humanitarian track** was undoubtedly a priceless addition. An opportunity to expand the professional networking and master new thoughts and techniques, it exhibited the diverse events organized in different IEEE Student Branches themed under Green Energy. The four selected finalists, IEEE SB Jawaharlal College of Engineering and Technology (IEEE SB JCET), IEEE SB NSS College of Engineering, IEEE SB Vishwajyothi College of Engineering and Technology (IEEE SB VJECT) and IEEE SB Adi Shankara Institute of Engineering and Technology (IEEE SB ASIET), then presented their posters before the attendees. The posters were evaluated by Ms. Staji Wilson (Assist. Engineer trainee at TCS, IEEE PES WiP Sub Regional Representative), Mr. Anandhu S Kumar (Senior Executive -Wipro Light Designing and IEEE PES YP Student Transition and Elevation lead), Mr. Anish MS (IEEE PES YP Global Relations Coordinator) and Mr. Saran KS (Junior Engineer of Track Machines Department at Indian Railways, and Activity Coordinator at IEEE PES YP). The humanitarian poster presentations concluded with a fascinating discussion session by the Student Branch finalists and the evaluators. The posters and especially the idea behind the projects were highly appreciated and hence validated the implementation of such conferences.

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Connected

Speaking: Sreelakshmi Manoor

Participants (40)

Search

- AK Abhiram R K Cohost, me
- IC IEEE SB CEK Host
- AE Aaron Sanju Eappen Cohost
- IC IEEE SB CEK Cohost
- MV MK VARUN Cohost
- SN S49_Govind S Nath
- AM Abhinav M
- AS ABHIRAMI S
- AR AKASH R
- AR Akhil Rai

Mute all Unmute all

Chat

IEEE STUDENT BRANCH NSS COLLEGE OF ENGINEERING PALAKKAD

IEEE KERALA SECTION | www.ieeesbnsce.org | ieeesbnsce@gmail.com

IPRECON 2020

IEEE Advancing Technology for Humanity

HUMANITARIAN EVENTS & PROJECTS

IEEE PES 0 Hunger Day
Food donation for a tribal Village. Able to feed 50 people.
Kava, Palakkad.
SDG -2, 3, 5, 10.
Aiming as a recurring event

IEEE PES HAC Project
Emergency Lamp for Village Solar Lamp and LED Bulb Installation
Kava, Palakkad
SDG -3, 5, 7, 10, 12.
Applying for HAC Project

IEEE Day Celebrations
Book and Amenities Distribution. Equipped 25 students with Books.
Railway Colony, Palakkad.
SDG -4, 5, 10, 17.
Aiming as a recurring event

IEEE PES MDI Project
Electrification using Solar Solar DC Systems for 5 Houses
Mannarcad, Palakkad
SDG -3, 5, 7, 10, 12.
Aiming as an extension for SID Event

MAJOR EVENTS

1. XPERION- 4 Day National Level Technical Event
2. ENCRYPTA- National Level Coding Contest
3. SAURORJA-Student Branch Level Solar Training Program
4. AKIASSC- All Kerala IAS Student Conclave

300+ Events
200+ Members
7 Humanitarian Activities
9 Societies
WIE Affinity Group
SIGHT Group

AWARDS AND ACHIEVEMENTS

Gold - IEEE PES Student Chapter (2019) - PES Kerala Chapter
- PES Kerala Chapter

Bronze - IEEE IAS Student Chapter (2018) - IAS Kerala Chapter
- IAS Kerala Chapter

7th - Best Student Branch Award (2019) - Kerala Section
- Kerala Section

14th - IEEE PES HPSBC Award (2019) - Global
- Global

19th - IEEE PES Membership Count (2019) - Global
- Global

Best Humanitarian Student Volunteer Award - Kerala Section (2019)
- Kerala Section

Best PES Student Volunteer Award (2019) - PES Kerala Chapter
- PES Kerala Chapter

Best IAS Student Volunteer Award (2018) - IAS Kerala Chapter
- IAS Kerala Chapter

OTHER HUMANITARIAN ACTIVITIES: Food distribution as part of Teachers Day | Manufactured Automatic Sanitizers in time of COVID 19 | Manufactured 1200 emergency lamp in time of Kerala Flood

Logos: PES, IEEE SIGHT, IEEE ComSoc, IEEE Computer Society, IEEE Student Branch Award, IEEE PES HPSBC Award, IEEE PES Membership Count, Best Humanitarian Student Volunteer Award, Best PES Student Volunteer Award, Best IAS Student Volunteer Award, IAS Kerala Chapter, Kerala Section, Global, PES Kerala Chapter, IAS Kerala Chapter.

Humanitarian Track – IPRECON 2020

The conclusion session of day 1 of IPRECON 2020 was a Humanitarian Track. The track comprised poster presentation on green energy, talks on sustainable development encapsulating all the core parts of sustainability. The session was also turned pretty notable with talk by Mr. Kartik Kulkarni on **“Transforming challenges into innovation through IEEE HAC.”** In short, the day was indeed a well spent one.

From 7:00-8:00 PM a session on **“Sustainable development goals and objectives”** by Mehak Azeem, STEM motivator speaker was held as a part of humanitarian track of IPRECON 2020. With that it came to an end to the India’s first IEEE IAS club of 6 technical paper conference, IPRECON. Her detailed presentations including various initiatives taken throughout the world and numerous ones that are yet to be taken in order to inflict the fact and importance of a sustainable world amidst the attendees. It was a stepping stone for the attendees to flourish in the future and was hence offered a memento as a token of appreciation from the Student Branch.

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Viewing Kartik Kulkarni's...

Speaking: Kartik Kulkarni

The Irony of Technology

1 in 3 people globally do not have access to safe drinking water – UNICEF, WHO

IEEE Humanitarian Activities Committee

Unmute | Start video | Share | Participants | Chat

Participants (28)

- AK Abhiram R K Me
- IC IEEE SB CEK Host
- KK Kartik Kulkarni
- IC IEEE SB CEK Cohost
- AE Aaron Sanju Eappen
- AM Abhinav M
- AR AKASH R

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Speaking: Mehak Azeem@ieee.org

International Power and Renewable Energy Conference 2020

Sustainable Development Goals & Objectives

IEEE

Participants (22)

- AK Abhiram R K Cohost, me
- IC IEEE SB CEK Host
- MA Mehak Azeem@ieee.org
- AM Abhinav M Cohost
- AE Aaron Sanju Eappen
- AM Abhishek Mohan
- AR AKASH R
- AK Akshay Krishnan
- AP Albin Paul

Mute all | Unmute all

Chat



Future Plans

To precisely demonstrate various benefits and opportunities of IAS.

To increase membership driven ideas to engage more passionate youth.

To uphold by the by-law and thrive towards success keeping the technical quality of events so as to prove the vision of IAS.

To conduct IPRECON 2020, INDIA'S First IEEE IAS Club Of 6 Conference was one of the highlights of IEEE SB CEK. We intend to conduct IPRECON 2021 with utmost sincerity by getting rid of all the previous flaws. Through IPRECON 2021, we aim at establishing a strengthened network from all over the globe and elevate the technical quality of our events.