



IEEE INDUSTRY APPLICATIONS SOCIETY

Student Branch Chapter

College of Engineering Karunagappally

ANNUAL REPORT 2019



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IEEE STUDENT BRANCH
COLLEGE OF ENGINEERING KARUNAGAPPALLY



1. ANNUAL GENERAL MEETING

IEEE student branch College of Engineering Karunagappally has decided to conduct the annual general meeting on 10th February 2019 at the College Seminar Hall (CS Dept) from morning 9 am. The meeting was started by a silent prayer followed by the IEEE Code of Ethics delivered by our Former Chairperson 2018 Miss. Anukrishna A J (S8CSE). Our student branch counselor Mrs. Sabeena K (Asst Prof. Dept of CSE) welcomed the gathering. The presidential address was persuaded by our beloved Principal Dr. Jaya V L. The chief guest of the meeting was our former sb counselor who won the best counselor award 2018. By the proper and multiple evaluation Anukrishna A J introduced the current elected chairman Mr. Akshay Krishnan to the fellow volunteers. The following Students are elected as new office bearers of IEEE SB CEK.



POSITIONS IN CHAPTER	OFFICE BEARERS
CHAIRMAN	MR. JAYARAJ NR
VICE CHAIR	MR. MIDHUN
SECRETARY	MS. AMITHA A NAIR



2. IEEE EXECOM TRAINING

“Those who know, do. Those that understand, teach”.

IEEE Student Branch College of Engineering Karunagappally is one of the vibrant student branches in Kerala. On February 10th the Student Branch refuelled the executive members positions with new ones. To be the best and to bringing the best from them we gave them an effectual training. The training period lasted for 2 days (16th and 17th of February) and the session were handled by the student branch mentor Mr. Anandhu S Kumar, pillar of strength for our Student Branch.

The 1st day of training embodied the session regarding the way which report writing and event reporting is set out, familiarization of v tools and a technical session based on Solar panel system. An intensive discussion and activities regarding solar panel installation was organised for the beginners.

2nd day of training composed of a session to deliver an idea regarding the funding scheme that are provided by IEEE for the advancement of society. The actions required for engage in such activities were covered in that session. With an inspirational speech from our Student Branch Counsellor Ms. Sabeena K the session came to end. All the newly elected execom members actively completed the training programme.





3. SHE-TECH SERIES

IEEE Student Branch, College of Engineering Karunagappally (IEEE SB CEK) in association with Industry Applications Society celebrated Women's day celebration on 10th March 2019. The program was started by the inaugural address by our Student Branch Advisor Dr. Haseena P Y (Assistant Professor Electrical & Electronics Engineering Department) .

First phase continued watching 2 videos. First video was about bold is beautiful and second on Tips for women. The videos were very motivational to all the students. Then general idea pitching was done group wise on the topic "Decomposition of Pads in Eco-friendly manner". The programs were organized as per the students to be bolder and more active in this 21st century.

As the second part of tremendous Women's Day celebration a workshop based on 'Open Source Hardware-Arduino' was exclusively organized for girls. The workshop was handled by Dr. Gopakumar (Head Of Department Electronics & Communication Engineering) . There was an active participation of 60 students from all of the department from college. The session effectively delivered the clear idea of Arduino to the attendees. The session came to an end by the vote of thanks expressed by Student Branch Chairperson Mr. Akshay Krishnan.





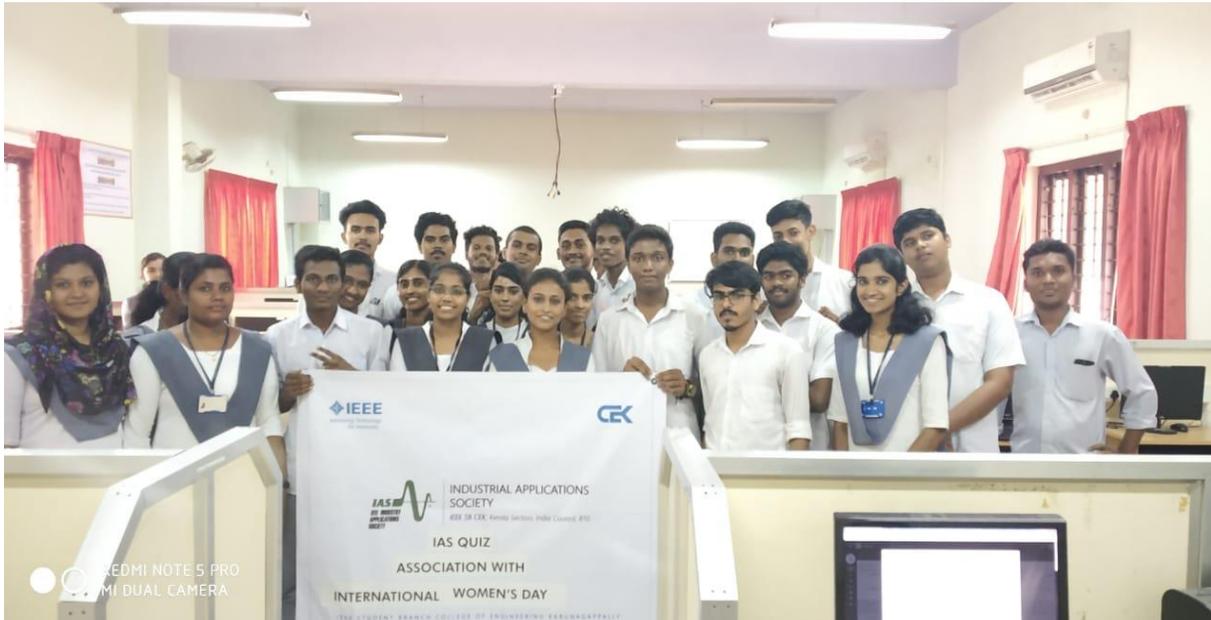
4. CONTENT MANAGEMENT SYSTEM WORKSHOP

IEEE Student Branch, College of Engineering Karunagappally (IEEE SB CEK) in association with Industry Applications Society conducted a CONTENT MANAGEMENT SYSTEM workshop on 11th and 12th March of 2019 as to enhance the young ignited technical minds. The two days workshop was conducted under the guidance of Mr. Arun Sreenivas (Chairperson Computer Society IEEE SB CEK) & Mr. Akshay Krishnan (Chairperson Student Branch IEEE SB CEK, Former chapter chair IEEE SB CEK) the expert hands of CEK in web designing. The workshop was inaugurated by our beloved IEEE Student Branch Counselor Mrs. Sabeena K. The first day of the workshop was focused to develop the knowledge regarding the essential packages, tools& coding required for designing. At the same itself we began the developing of a website by the attendees. By the end of second day the attendees were able to design a website completely. The workshop was turn to great success with the participation of 28 students.



5. QUEST- IEEE IAS QUIZ

The IEEE SB CEK under the prestigious IAS society conducted a quiz competition named "QUEST" at computer lab from 12:45 pm -1:45 pm on 14th March 2019. The quiz was setup as a part of International Women's Day Celebration 2019. The themes of the quiz were "women empowerment", "technology", "space and "science". The whole event was effectively handled by the IEEE SB CEK Secretary: Sherin Cherian while the questions were narrated by IEEE SB CEK Joint Secretary Rafiya Al Abraham and Treasurer: Aparna P V. Other IEEE volunteers were immensely involved in offering any kind of help the Students needed. The quiz contained questions from different and unique realms providing a healthy challenge to the students. Each and every student invested all of their knowledge and learning to effective use. The themes quite efficiently threw light on the celebration of womanhood and various technological information that enriched the students with a better vision. The event was a great initiative to involve the students in something worthy and was a massive success!



6. INDUSTRIAL VISIT TO KMML CHAVARA

The IEEE SB CEK in association with Industry Applications Society conducted a visit to the Kerala Minerals and Metals Ltd. one of India's prestigious public sector organizations operating under Indian Space Research Organization (ISRO) and Defense Research Development Organization (DRDO).

The student members including 2 faculty members visited the Kerala Minerals and Metals Ltd. Chavara on 25th March 2019. The unit is focusing on Titanium dioxide mining, separation of synthetic rutile and pigment separation production plant.

At first we were taken by an employee and gave a brief explanation about pigment production plant and also made all of us aware of safety measures that need to be followed. Later we were guided by another staff and he gave explanations about functioning of



1. Chlorination.
2. Oxidation.
3. Slurry formation.
4. Filtering/washing.
5. Pigment surface treatment and finishing.

And the session concluded with a meal.

Then we were taken to mineral separation plant by Mr. Sudharshan, production manager of Mineral Separation Plant. Explained the plant's functioning. There we saw the mineral-rich sand taken from captive beaches for separation of ilmenite, rutile, monazite, sillimanite. MS unit employs gravitational, magnetic and high-tension electrostatic technique for separation of minerals from the sand. At last students expressed their thanks to officials for the tremendous opportunity given. The visit contributed lots and lots of beneficial informative about advanced mining technologies and all of the information considered to be useful for recruitment opportunities for such industries and also help us to acquire theoretical and practical knowledge.

7. IEEE COUNSELLING DESK 2019

IEEE IAS Student Branch Chapter exclusively organized a counselling desk for the first year students. The counselling desk was open to the first year students on the 9th, 10th, 11th and 12th of July from 9.00am to 4.00pm. It was held at the administrative block, near college office. It was aimed to furnish an awareness on IEEE and its benefits to student members. After their admission procedures, the students were called to the counselling desk and the volunteers at the desk gave an overview on IEEE and its benefits to student members, our student branch and our achievements. Four student volunteers were present at the desk every day to counsel the students.

Day 1 (09/07/2019)

The desk was opened at 9.00am. 7 students appeared at the desk, out of which 1 paid the complete registration fee (Rs. 2600) and 1 gave a temporary registration fee of Rs. 300.

Day 2 (10/07/2019)



A total of 20 students appeared on the second day, out of which 1 gave the full payment and 9 registered temporarily. Most of the students seemed interested and assured to register after the orientation class.

Day 3 (11/07/2019)

33 students appeared on the 3rd day, out of which 8 registered temporarily. Around 20 minutes of counselling was given to each student to ensure that they get an overview on IEEE and its benefits.

Day 4 (12/07/2019)

14 students appeared at the desk on the final day of counselling. 2 of them paid the full payment and 3 enrolled for the temporary registration.

The IEEE counselling desk 2019 witnessed an overall positive response from the students as most of them seemed interested and assured to registered after the official orientation class. The volunteers provided a brief but a solid overview on IEEE and its activities within the given short time. Out of the 74 students appeared at the desk, 25 either paid the full amount or enrolled the temporary registration.





8. IEEE ORIENTATION 2019

IEEE Student Branch College of Engineering Karunagappally successfully organized the "IEEE Orientation 2019" for the beginners of BTECH Degree on August 11th 2019. The event was conducted at the Administrative Block's seminar hall. The hall was filled with enthusiastic, diligent students from various departments. The code of ethics, to begin with was conveyed by the student branch chairman Mr. Akshay Krishnan. A session about "benefits of being an IEEE member" was delivered by the SB Chairman Mr. Akshay Krishnan. A talk about "3d printer" was put forward by Mr. Akash S, 2nd year student, College of engineering Karunagappally. Later a detailed class about "Drone- assembling and working" was taken by Mr. Cliffin Cletus, vice chairman, NPSS /PELS Jt chapter. The event came to conclusion with a gaming section. Prizes were distributed among the winners. Eventually every student in the hall ensured to be an IEEE member and was enlightened with knowledge.





9. Student Professional Awareness Symposium (SPAS)

Student Professional Awareness Symposium (SPAS) was an initiative taken by IEEE SB CEK in association with Industry Application Society to render aspiring professionals an exposure of the professional world by providing them a platform to interact and learn from thriving professionals. SPAS was held at College of Engineering Karunagappally on 23rd 24th and 25th of August 2019. It unveiled the possibilities students can explore in their near future.

24/08/2019

The first SPAS session began with an inspiring session on "How to be a good volunteer" by Er. Nandhan S, chair SAC Kerala Section. It helped the students to analyse themselves to be a better volunteer, to experience the pleasure in serving others. It was followed by a technical session by Indian Rare Earth Minerals Ltd. (IREL). They shared the procedures and processes that they follow in producing their products. Then was a session by prof. Deepa AK, secretary of WIE, Kerala session, on 'how to write a technical paper'. She discussed everything one should focus while writing a technical paper as pursuing engineers, explaining the important points one should heed. Er. Staji Wilson, Young Professional IEEE Kerala Section handled an interactive session on 'IEEE opportunities and leadership'. She ignited a thrust to explore the opportunities in IEEE taking her own experience as an example. That concluded the SPAS sessions of the day creating more opportunity to inspire and interact.





25/08/2019

The next day of SPAS sessions began with a technical session by Mr. A V Sathish, scientific officer at Kudamkulam Nuclear Power Plant on "power transmission and opportunities in power transmission at nuclear power plant". With his 28 years of experience in the field, he talked about the current technologies and the possibilities we could explore in the near future. The forenoon session of the day was a young professionals interaction session. Er. Anish M S, an active IEEE Power and Energy Society Young Professional, handled the first session on "higher education and career opportunities". He talked about the possibilities in higher education in India and abroad and the career options that follows. The session was followed by another YP interaction session by Er. Shyam Pradeep Alil, entrepreneur and YP volunteer, IEEE Kerala Chapter, on "entrepreneurship". He shared his experience on growing from a student to an entrepreneur at a young age. His session was an inspiration on how to establish an idea.

10.IAS CHAPTER AND MEMBERSHIP DEVELOPMENT SESSION BY DR. ING PETER MAGYAR

Dr.ing Peter Magyar, the past chairman IEEE IAS CMD lay hold a session on the broader aspects of Industry Application Society in the technical world and the carrier as well as the social exposure it provides. He motivated the aspirants by sharing his observations and facts attained through his proficient journey to be an IEEE life-time fellow member and to the Chairmanship of Industry Application Society CMD. He made an impulse to the students and professionals by making them aware of engineering ethics that an engineer must have to his society. The team IEEE Student Branch College of Engineering Karunagappally honored him by giving token of appreciation.



11. EXPERIENCE IN BEIJING, CHINA-(IAS TRAVEL GRANT)

IEEE Women in Engineering International Leadership Summit 2019

Sherin Cherian, IEEE SB CEK

Sajna Mohammed, IEEE SB CEK

With the anxiety of flying for the first time, me and my friend Sajna Mohammed were so excited on the day of our departure from Cochin International airport to Singapore since we got only Connection flight to Beijing. The journey started on 4th September at 1:30 am from Kochi, the Transit in Changi International airport, Singapore was a great experience and reached Beijing Capital airport at 11pm.



The flight time was at 1:30am from Cochin International airport, myself with my family and Friends reached airport by 10 pm and the immigration process were completed by 11:30pm. The boarding time was at 1:00 am and the flight took off by 1:30 am since it was my first flight, I enjoyed each moment in the flight and arrived Beijing Capital airport at 11pm. We reached the hotel by 12am on 5th September. The Inaugural ceremony was on 6th September. Afternoon 1:30 pm and the program starts with Opening & Welcome sessions by Ning Hua, IEEE Asia operations, senior Director, Lishuang Feng, IEEE Beijing section WIE Coordinator and Yajie Liu, Inno Ecos VP. This was followed by several interesting sessions such as Change the world! to be a change maker by Eni Yano, IEEE WIE Region10 chair, finding your voice by Lin Gao, Message Coach CEO, Writer, Engaging Tech for Good by Jing Dong, Institute of Automation, CAS, IEEE R10 HAC Chair, etc.





After these interesting sessions they give us a sweet coffee and after the tea break, next session was a panel discussion. After the panel discussion several technical sessions was held such as Tech Has No Gender, Power women in power community, etc. and the day ends with a beautiful net working session with delicious food and drinks. After the event we travel back to our hotel by Subway. In the 2nd day we have arrived at the venue earlier and the day started with an interesting talk by Toshio Fukuda, IEEE 2020 President on the topic “Community and career creation in IEEE”. This talk Help us to understand more about the different opportunities of IEEE and different sessions were held after this session. Around 11 sessions, 2 panel discussions and 1 lucky draw was held at the 2nd day. From 2 panel discussions one was interesting. It was conducted by four young girls which have the age between 10 & 18. From that discussion we can understand more about the new young views on technology, their common problems. To explore more, me and my friend Sajna take a day to visit Beijing. We started from our hotel at morning 6 am, Our first destination was to reach at the ticket counter to get the entry pass to The great Wall of China and after a traditional lunch we set out to the Forbidden city which glorified the ancient Chinese culture. And were ached back to our hotel by 7 pm. The return flight from Beijing capital international airport was at 8:55 am on 9th morning to Singapore Changi Airport. The 4hours layover in Changi airport was well spent in duty free shops and our flight took off to Kochi by 8pm (Singapore time) and reached Cochin international airport by 10pm on the same day.

12. IAS ANNUAL GENERAL MEETING AT BALTIMORE, USA

Our SB Chair Got travel grant to attend IEEE IAS GM at Baltimore, USA to receive the global 1st Award in website contest.

Mr. Akshay Krishnan our Student Branch Chairman, is a very active IEEE volunteer whose dedication elevated the quality of our Student Branch. He is the winner of the Global Website Contest organised by IEEE IAS for developing the IA/IE/PELS Jt. Chapter Kerala Website and he was invited to Baltimore, USA to attend the IAS GM also to receive his contest award. Our Student Branch of College of Engineering Karunagappally received 'Region 10 Exemplary Student Branch Award 2018' and 2019, this would have been impossible without his efforts, dedication and tenacity. He was successful in initiating iTIPS (IEEE Technical Quality Improvement Program) at our institute and also took initiative in introducing Industry



Application Society (IAS) which added the essence and gave a lift to our Student Branch. His technical knowledge is sky high and he is the Web master of IA/IE/PELS Jt. Chapter Kerala Section. He was indeed the master mind behind two successful National Level Events: Luxathon 1.0 and WIPS; which grabbed the attention and influenced not just the student but also the professional community and he received appreciation for his technical knowledge from PES Headquarters, India Council Kerala Section and other eminent professionals.





13. PYTHON WORKSHOP

IEEE SB CEK in association with Industry Applications Society always takes keen interest in enriching students with programming skills. As a part of it a workshop on " introduction to python" for the first year students on 19,20 and 21 September 2019 at programming lab ,Resource person Akshay Krishnan and Arun Sreenivas. The workshop was taken by technically skilled students from our own SB. It was a 3 day workshop which includes general introduction to programming and it's basics , different data types, basic arithmetic operations and differentiating between Linux and Windows.

It was a trailer for their programming exploration. Around 40 students attended the Workshop. It mainly focused on molding base of programming in the students, without a strong base a good programming carrier can't be built in it. The workshop was for all branches of students as programming plays an important role in the field of engineering. Students were trained in such a manner that they can now do basics programs by their own .Even though it was a 3 day workshop its impact was unmeasurable as many of the students were using programming language for the first .Now students are well aware of the two operating systems (windows and Linux).

Feedback from the students was very enlightening and encouraging for the IEEE coordinators to conduct such programs in the future.





14. IEEE Day Celebration 2019

IEEE Student branch College of Engineering Karunagappally, organized multiple sessions on 4th October 2019, in association with IEEE DAY Celebrations 2019. We started the celebration by having a sweet piece of cake. The cake cutting ceremony was held with the presence of the IEEE student branch Counselor Mrs. Sabeena K. After as organized, session for high school students at Sree Buddha Central School, Karunagappally. A group of IEEE members led the session about distinct topics for the students. The session mainly comprised of talk related to 3D printer, radioactive waste management and Women in Engineering. The first session started by morning 9 am The talk about "**3D Printer**" was introduced by Hari Prasad, Chairman, PES Chapter, IEEE SB CEK. The session include familiarization of its components, uses etc. and also demonstration sessions were conducted to adapt the entire 3D printing Process. A live prototyping took the attention of all the ignited minds who showed up. Akhil Ahammed, Chairman, NPSS /PELS Jt chapter and Cliffin Cletus, vice chairman, NPSS /PELS Jt chapter delivered a talk on "**RADIOACTIVE WASTE MANAGEMENT**". The session begin with an introduction to Radioactive Materials: 'Radioactive waste is usually a by-product of nuclear power generation and other applications of nuclear fission or nuclear technology, such as research and medicine' and the current radioactive waste management techniques of segregation and storage for short-lived waste, near-surface disposal for low and some intermediate-level waste, and burial in a deep geological repository or transmutation for the high-level waste were well explained. The students were brimmed with enthusiasm and curiosity. They studiously listened and noted down vital details. Promotion of more women in technical field was presented through slides by our two prominent IEEE members who attended IEEE WIE ILS Beijing, Miss Sherin Cherian, Secretary, IEEE SB CEK and Miss Sajna Saji, Chairman, RAS Chapter. The session includes many interactive talks and idea pitching on "**How high school girls can make difference in society**" exclusively put forwarded by Industry Application Society. This was also a part of the ITIPS initiative of IEEE SB CEK, focusing on the technical enhancement and skill development for School children. A total of 50 students attended the session and gained knowledge. We are currently involved in more works as a part of IEEE day celebrations and we would love to share away our eminent work in the near future.





15. ITIPS – Sree Buddha Central School

The IEEE Student branch College of Engineering Karunagappally in association with Industry Applications Society, organized a 3D Printing Workshop as part of IEEE Day Celebration at the nearby **Sree Buddha Central School**, with the use of their **Atal Tinkering Lab**. A total of 40 Students attended the session in which the basic working of a 3D printer, its components, uses etc. were described and demonstration sessions were conducted to familiarize the entire 3D printing Process. This was Part of the **ITIPS** initiative of IEEE SB CEK, focusing on the technical enhancement and skill development for School children.

16. PHOTOSHOP WORKSHOP

IEEE Student Branch College of Engineering Karunagappally is always concerned with boosting the technical qualities of the student member. The next in the row of workshops was based on Photoshop and Poster Designing in association with Women in Engineering Affinity Group of IEEE SB CEK on 10th November 2019. 25 members were molded by the workshop handled by Hari Prasad (Chairperson, IEEE PES SBC CEK) and Mr. Akshay Krishnan (Student Branch Chairperson, Webmaster). The workshop gave a vital informative regarding poster designing and photoshop which was much beneficial one.

