

POWER AND ENERGY SOCIETY STUDENT CHAPTER - IEEE SB CEK

ANNUAL REPORT 2018

4 PES MDI PROJECTS
6900 USD FUNDING

PES DAY 2018
CELEBRATIONS

WOMEN IN POWER
SUMMIT 2018
NATIONAL LEVEL
SYMPOSIUM

60+ EVENTS
IN 2018

LUXATHON 1.0
NATIONAL LEVEL
ILLUMINATION
HACKATHON



sbcek@ieee.org | pes.ieeesbcek.org



IEEE STUDENT BRANCH
COLLEGE OF ENGINEERING
KARUNAGAPPALLY

ANNUAL REPORT OF PES SBC CEK 2018

OUR TEAM AND STRENGTH

OUR ACHIEVEMENTS

INTRODUCTION

IEEE STUDENT BRANCH CEK

MEMBERSHIP STATISTICS AND HIGHLIGHTS

PROGRAM REPORTS

FUTURE PLANS

IEEE PES SBC CEK TEAM



HASEENA P Y
ADVISOR IEEE PES SBC CEK

We are a group of hardworking people working together to fulfill the mission of IEEE, IEEE PES and to bring quality to Education and Technology



HARI PRASAD
CHAIR IEEE PES SBC CEK



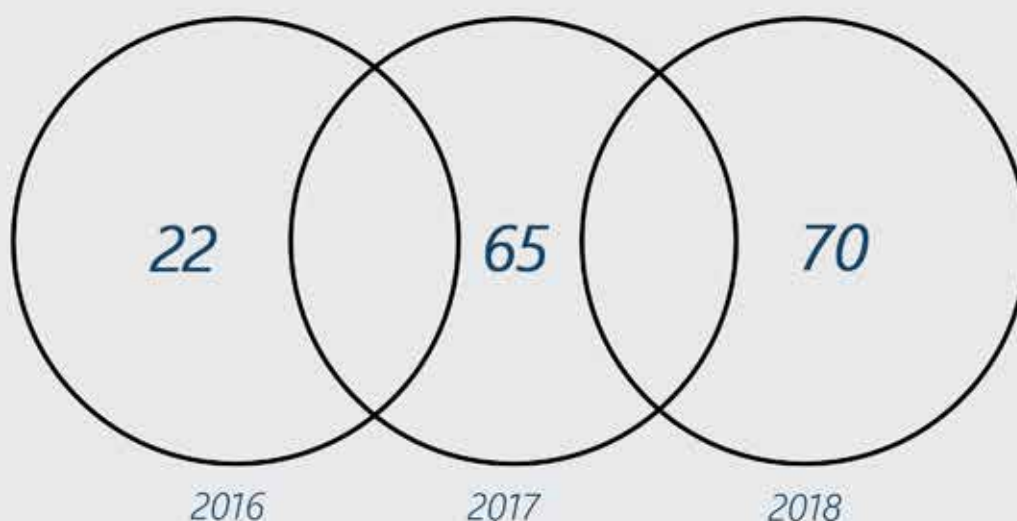
ARCHA S SUDHI
SECRETARY IEEE PES SBC CEK



AKHIL AHAMMED
VICE CHAIR IEEE PES SBC CEK

IEEE PES MEMBERSHIP STRENGTH

Year wise IEEE PES SBC College of Engineering Karunagappally Membership strength as per IEEE OU Analytics



OUR ACHIEVEMENTS



**IEEE REGION 10
EXEMPLARY
STUDENT BRANCH
AWARD 2018**



**RANKED NO.1 PES SBC
IEEE KERALA
SECTION**

BASED ON PES HPSBCP 2018



**RANKED NO.8 PES SBC
IN INDIA**

BASED ON PES HPSBCP 2018



**RANKED NO.14 PES SBC
IN WORLD**

BASED ON PES HPSBCP 2018



**RANKED NO. 5
IN WORLD IN TERMS OF
PES SBC MEMBERSHIP**



**PES OUTSTANDING
STUDENT VOLUTEER AWARD
2018 KERALA SECTION**



**6900 USD RECEIVED
THROUGH 4 MDI
PROPOSALS IN 2018**

LIST OF ACHIEVEMENTS AND RECOGNITIONS

- **IEEE REGION 10 EXEMPLARY STUDENT BRANCH AWARD 2018**
- FORMER STUDENT BRANCH CHAIR WON THE PES OUTSTANDING STUDENT VOLUNTEER AWARD 2018
- RANKED NO. 5 IN THE WORLD IN TERMS OF PES MEMBERSHIP
- NO.1 PES SBC IN KERALA SECTION ACCORDING TO THE HPSBCP 2018 PES HQ LIST
- RANKED NO. 8 IN INDIA AND NO. 14 IN WORLD BY THE PES HPSBCP 2018
- 4 PES MDI PROPOSALS ACCEPTED AND FUNDED BY PES HQ
- 6900 USD FUNDING RECEIVED IN 2018 THROUGH PES MDI
- 2 NATIONAL LEVEL EVENTS UNDER PES MDI PROGRAM

ABOUT US

WHO WE ARE?

The IEEE PES SBC CEK forms the hub of a vibrant technical community of more than 70 student members dedicated to transforming breakthroughs TECHNICAL workshops, CONTINUOUS DEVELOPMENT PROGRAMS, Expert lectures from the field of Power and Energy to revolutionize our daily lives and build a better community.

WHAT ARE WE DOING?

As a small engineering college in the state of Kerala , India. We are mainly focusing on maximum benefits to our student members by conducting regular programmes under IEEE POWER AND ENERGY Society Student Branch Chapter of College of engineering Karunagappally which include Workshops, Expert talks, continuous development programs etc.

COLLEGE OF ENGINEERING KARUNAGAPPALLY

The Government College of Engineering Karunagappally (CEK) is a public institute of engineering and technology in Karunagappally, in the north-west of Kollam district, Kerala, India. Established in 1999 by the Government of Kerala, it is the second engineering college in Kollam district the fourth engineering college under the aegis of the state government's Institute of Human Resources Development in Electronics. The institute was affiliated to Cochin University of Science and Technology until 2014 and the A P J Abdul Kalam Technological University since 2015. The college offers four undergraduate programmes and two postgraduate programmes in the field of engineering and technology. Since 2012 it has been aided by the World Bank under the Government of India's TEQIP Programme.

IEEE STUDENT BRANCH CEK

IEEE Student Branch College of Engineering Karunagappally (STB03951) aka IEEE SB CEK is one of the oldest IEEE Student Branch in Kerala Section, Travancore Hub (Formerly Hub No-1). It is one of the vibrant student branch with 100+ Student Members.

Today IEEE SB CEK has one affinity Group and four Societies

- IEEE WIE College of Engineering Karunagappally (Founded on 2010)
- IEEE Computer Society Chapter CEK (Founded on 2015)
- IEEE PES Chapter CEK (Founded on 2016)
- IEEE IAS Chapter CEK (Founded on 2017)
- IEEE RAS Chapter CEK (Founded on 2018)



IEEE PES SBC COLLEGE OF ENGINEERING KARUNAGAPPALLY

Application to IEEE MGA : 30 October 2015
IEEE PES CEK approval : 08 February 2016
Inaugurated by : Er. A G Hareendralal
Geo Code : SBC03951B
SB Code : STB03951
Section : Kerala
Region : R10

EXECOM 2018

ADVISOR : ER. HASEENA P Y
CHAIR : HARI PRASAD
SECRETARY : ARCHANA S SUDHI
VICE CHAIR : AKHIL AHAMMED

MEMBERSHIP STATISTICS



PROGRAM REPORTS

1. IEEE STUDENT BRANCH CEK & IEEE PES STUDENT BRANCH CHAPTER COLLEGE OF ENGINEERING KARUNAGAPPALLY ANNUAL GENERAL BODY MEETING

The Annual General Body of IEEE Student Branch College of Engineering Karunagappally was conducted on 01/02/2018. The program commenced with the IEEE Code of Ethics followed by the introduction of updated IEEE Student Branch Constitution familiarization to new members. The counselor and advisor of IEEE SB CEK addressed the students. Election was carried out under the guidance of former Execom and new office bearers were elected.

The following members are selected as the New Executive committee core members of IEEE PES Student Branch Chapter

PES SBC ADVIOSR	: Mrs. Haseena P Y
PES SBC CHAIR	: Mr. Hari Prasad
PES SBC VICE CHAIR	: Mr. Akhil Ahammed
PES SBC SECRETARY	: Ms. Archa Sudhi



PROGRAM REPORTS

2. ETHICAL HACKING WORKSHOP

IEEE PES SBC, College Of Engineering Karunagappally (IEEE SB CEK) had conducted an "ETHICAL HACKING" workshop on 22nd and 23rd March in association with the IAS SBC as to enhance the young ignited minds. The two day workshop was conducted with the assistance of expert professionals from Network Solutions pvt.limited Kollam. The workshop was inaugurated by our beloved principal Dr. Jaya V L and the Welcome speech was delivered by our IEEE Counselor Mrs. Sabeena K. Miss. Athira (System Analyst, Network Solutions) had an interactive session with the delegates explaining the major difference between Cracking and Hacking. The first day of the workshop was focused to create a knowledge to the students about the need of hacking and its norms to be followed. The second day concentrated in increasing the practical knowledge of the delegates in handling Kali Linux. The workshop was a great successful with the strength of 25 delegates. Not only students of Computer Science branch but also from other branches too actively participated in the workshop.

Number of Students Participated: 25

Skills Developed by the Program: Understanding of Ethical Hacking, Basic Techniques etc.



PROGRAM REPORTS

3. POWER AND ENERGY SOCIETY DAY CELEBRATIONS '18

IEEE Student Branch College of Engineering Karunagappally (IEEE SB CEK) had conducted the Power and Energy Society (PES) day celebration on April 13th 2018 at the College Electrical Machines Lab. The program was blessed with the presence of our college principal Dr. Jaya V L and our advisor Mrs. Sabeena K (CS Dept.). The welcome speech was delivered by our IEEE PES chairman Hari Prasad (S4 EEE) and he discussed on the introduction and the importance of celebrating the PES day. The IEEE PES Day Ambassadors had a talk on their wonderful experience with the students to ignite the young sprouted engineers. Success is never a one step process; we were truly honored to have Mr. Anandhu S Kumar, the IEEE Kerala Section Outstanding PES Student Volunteer Award Winner (Former Chair of IEEE SB CEK) who had an interactive session with the students informing them the importance of IEEE PES Chapter and his experience in this venture. The PES day celebrations became fruitful with the cake cutting ceremony by our chief guest and distributed among the faculties and the members, afterwards the Electrical Machines were introduced to the first year students. The PES chairman also discussed the future activities; ideas and open suggestions from the PES members to enhance the PES Chapter were also welcomed. All the IEEE members of about 70 actively attended the ceremony. The program ended with a photo session at 4 pm.

Number of Students Participated: 70

Benifits from the Program: Understood the Importance of PES Day, Understanding of Electrical Machines, Future Planning, etc.



PROGRAM REPORTS

4. TECH EVE

Tech Eve was a modification of PES Class Room Program(PES CRP). As Part of the program, 12 Sessions to develop a skill set or discuss on a field of interest was conducted. The sessions were focused on improving the technical knowledge of students by introducing them to modern and upcoming technologies as well as some very essential technologies. The following are the list of sessions that were taken as part of the Tech Eve

- Arduino Basics
- MATLAB
- Wolfram System Modeler
- OrCAD PSPice
- PCB Fabrication
- Microchip Reballing
- Illumination Design Basics
- DiaLux Software
- Electrical Vehicles
- Renewable Energy
- UI/UX Development

Number of Students Participated: 25 - 30 (Average in 12 Sessions)

Benifits from the Program: Students were able to develop some basic but essential technical skills through the series of programs.



PROGRAM REPORTS

5. RENEWABLE ENERGY AWARENESS PROGRAM (PES MDI PROJECT)

Power and energy society (PES) under IEEE Student branch of college of engineering Karunagappally (IEEE SB CEK) had conducted a Renewable energy awareness program including a designing competition in six different schools in the college locality under the guidance of college faculties. The program was inaugurated by our current PES chair Mr. Hari Prasad in the presence of school faculties and active IEEE student volunteers of our college. The Six different schools throughout the journey were:

- 1 BOYS HSS KARUNAGAPPALLY
- 2 MODEL HSS KARUNAGAPPALLY
- 3 AL-AMEEN CENTRAL SCHOOL KARUNAGAPPALLY
- 4 GIRLS HS KARUNAGAPPALLY
- 5 GIRLS HSS THAZHAVA
- 6 GOVT HSS THODIYOOR

PROGRAM STRUCTURE

1) BOYS HSS KARUNAGAPPALLY:

The program was held on 18th July 2018 with 31 students. The program included different sessions such as IEEE introduction, MDI introduction, Power point presentation on the topic "Renewable Energy" and healthy discussion on different types of renewable energy sources.



2) MODEL HSS KARUNAGAPPALLY

The program was held on 19th July 2018 with 49 students. The program included different sessions such as IEEE introduction, MDI introduction, Power point presentation on the topic "Renewable energy" and a healthy discussion on different types of renewable energy sources



3) AL-AMEEN CENTRAL SCHOOL KARUNAGAPPALLY

The program was held on 21st July 2018 with 31 students. The program included different sessions such as IEEE introduction, MDI introduction, Power point presentation on the topic "Renewable Energy" and a healthy discussion on different types of renewable energy sources



4) GIRLS HS KARUNAGAPPALLY

The program was held on 23rd July 2018 with 41 students. The program included different sessions such as IEEE introduction, MDI introduction, Power point presentation on the topic "Renewable energy" and a healthy discussion on different types of renewable energy sources

5) GIRLS HSS THAZHAVA

The program was held on 24th July 2018 with 104 students. The program included different sessions such as IEEE introduction, MDI introduction, Power point presentation on the topic "Renewable Energy" and a healthy discussion on different types of renewable energy sources

6) GOVT HSS THODIYOOR

The program was held on 25th July 2018 with 60 students. The program included different sessions such as IEEE introduction, MDI introduction, Power point presentation on the topic "Renewable Energy" and a healthy discussion on different types of renewable energy sources



LUXATHON

VERSION 1.0

LUXATHON : 24 Hr National Level Light Designing Hackathon. Participation ranging from all over India Council

Date : 28, 29 and 30th September 2018

Venue : College of Engineering Karunagappally, Kerala Section, India

"Any sufficiently advanced technology is indistinguishable from magic"

These words of Arthur C Clarke makes us believe in the power of technology and that technology is not just a tool but a voice given to the learners that they may not have had before.

The IEEE Power and Energy Society (PES) provide the world's largest platform for sharing the latest technological development in electric power society. The IEEE Student branch CEK in association with PES student chapter college of engineering karunagappally had conducted the massive technical extravaganza LUXATHON –a 24 hour electrical hackathon, which gave the way for the vibrant brains to master the world by means of a light designing competition on 28th, 29th, and 30th of September 2018. College of Engineering Karunagappally is a premier institute of engineering that has carved a niche for itself in the field of technical education in a very short span of time with a mission to provide education through resourceful programs that are stimulus to the current and emerging needs of the society. The three day event was supported by IEEE PES HQ through its member driven initiative campaign and by winning Rs.75000 fund from MDI PES.

DAY 1

The first day of the event, 28th September 2018 was very peaceful with splendid delegates around the country. The registration had started by morning 8:30. The official inaugural ceremony of LUXATHON began at 9:30 am with prayer song delivered by Miss. Megha Walter (S7 CSE) followed by the IEEE Code of Ethics orated by our IEEE SB CEK chairperson Miss. Anukrishna A J. The welcome speech to address the mass was persuaded by our IEEE SB Counselor Mrs. Sabeena K (Asst. prof CSE Dept). The presidential address was delivered by our beloved college principal Dr. Jaya V L. The official inauguration of LUXATHON was lighted by our chief guest Er. Dhaharan Unithan (Director, Energy Management centre Trivandrum) followed by his inaugraual address. Fruitful felicitations were delivered by Prof. Biju K who supports the student branch in her growth and by Mrs. Haseena P Y (IEEE PES SB Chapter Advisor). As the IEEE SB CEK won the IEEE Region 10 Exemplary Award 2018, a caking cutting function was hosted in between and we shared our joy all the mass gathered for the inaugural ceremony.

The thank you note was enlisted by our IEEE SB Mentor Mr. Anandhu S Kumar. After the official inaugural ceremony of LUXATHON the keynote address was delivered by Er. Dhareesan Unithan (Director, EMC) followed the interactive session were started and the first session was handled by Er.A M Narayanan (Head, Energy Efficiency Division, EMC) on "illumination policy". second session was on the topic "performanceevaluation of lighting systems" taken by Er.Suresh Babu S (Accredited energy auditor, MD, Ottotractions Limited, Trivandrum) which helped the delegates to understand the concept of the light designing contest .The third session was delivered on the "New trends in lighting and the lightdesigning method by using DIALux software" which ignited the young minds to implementationconcept of Luration by Er. Toms Maly. A session on "Introduction to Luxathon" was taken by the Luxathon team. After all the technical sessions the fun just got began with awesome performance by the IEEEians of CEK as well as the delegates.



DAY 2

The second day of the LUXATHON was very energetic with the delegates setting up their minds against all odds and marched to the battle field. The 24 hour light designing competition had started sharp at 11 in the morning. All the 10 teams around the country competed with their brains and strength.

DAY 3

Day 3 was the final day of the "LUXATHON", the competition was completed at 11 am. The expert panel of judges Mr. Raju M (Asst.Prof College of Engineering Chengannur), Mr.Shibu V (System Analyst, College of Engineering Karunagappally), Mrs.Radhika (Asst.Prof College of Engineering Karunagappally) analyzed the designs and ended up to the conclusion. The closing ceremony of Luxathon 1.0 was started at 2pm afternoon, with the eagerly awaited moments for the delegates. Mrs.SunithaBheebi (Vice chair IEEE PES Kerala Section), an icon of wonderful personality declared the final winners of Luxathon. The first prize worth Rs.12000 was won by the team Saintgits College of Engineering, Kottayam (IEEE Kerala Section) with the team members Betsy elzavarghese, Jeremiah Reji, Sneha Susan Abraham and Tibinmon P.M. The second prize worth Rs. 5000 was won by the team Model Engineering College, Ernakulum (IEEE Kerala Section) with team members M R Lakshmi Priya, Maria Teres Victor, M Hridya, Sahla V H and Tharik Anwar. The third prize worth Rs. 3000 was won by team Vardhaman College of Engineering Hyderabad (IEEE Hyderabad Section). The vote of thanks to all those who supported for this event from the beginning to the end was persuaded by Mr.Akshay Krishnan (Vice Chair, IEEE SB CEK).



7. PES QUIZ

The PES QUIZ Was conducted on October 8th 2018 as part of IEEE Day celebrations. The Contest was conducted for 1st year Engineering Students as directed by the PES Kerala Section.

Number of Students Participated: 76

Benifits from the Program: Took Part in the Quiz program and became a part of the PES Community



8. WOMEN IN POWER SUMMIT

As a part of 'Women In Power Summit', a national level technical summit to empower women technical aspirants across the country, IEEE SB CEK has conducted a pre event at two colleges each from Malabar hub and Kochi hub.

- 1) College of Engineering Trikaripur*
- 2) Vidya Academy of Science and Technology, Thrissur*

PRE EVENT AT COLLEGE OF ENGINEERING TRIKARIPUR

TALK ON PLUG-IN ELECTRIC VEHICLES OPPORTUNITIES AND RESEARCH CHALLENGES
PRE-EVENT OF "WOMEN IN POWER SUMMIT"

POWER ENERGY SOCIETY of IEEE SB CETkr conducted a half day event on 6th October 2018 on the topic "PLUG-IN ELECTRIC VEHICLE'S OPPORTUNITIES AND RESEARCH CHALLENGES". It was a pre-event of "WOMEN IN POWER SUMMIT" Organized by IEEE SB CEK. WIPS is a national level technical symposium of passionate and enchanting student engineers. WIPS is a new initiative of IEEE SB CEK.

The session was preceded by an inaugural ceremony presided over by our honorable Principal Dr. Vinod Pottakulath. Mr. Prasanth, staff coordinator IEEE SB CETkr delivered the welcome speech. Mr. Sreekanth P, Assistant Professor, Dept of Electrical and Electronics Engineering addressed the gathering. Kumari Anusha M P , Chairperson IEEE SB CETkr delivered vote of thanks. The session was handled by Dr. Ajay Babu, Assistant Professor, Dept of Electrical and Electronics Engineering, NSSCE Palakkad. The session covered different areas of plug-in vehicles, which include evolution of plug-in electric vehicles , general block diagram ,different types of plug-in vehicles, different operating modes etc. A discussion on plug-in electric vehicles and its relevance in smart grid ,its opportunities and research challenges were conducted. The session was interactive. The resource person ensured active participation of the students by including questioning sessions and providing rewards for the correct answers. The event was conducted in the main seminar hall of our college at 1pm. About 107 students actively participated in the session. The session was mainly focused on final years and pre-final years of EEE Dept but had active participation from students of all the department. The session was wrapped by giving a token of love to Dr. Ajay Babu from IEEE family of CETkr.



PRE EVENT AT VIDYA ACADEMY OF SCIENCE AND TECHNOLOGY, THRISSUR

A program was conducted in association with the PES chapter of Vidya Academy of Science and Technology as a pre event of WIPS on 29th October 2018. As part of Women in Power Summit (WIPS), a 3-day National level Summit organised by the Power and Energy Society Student Chapter of IEEE Student branch College of Engineering karunagappally, A pre-event was conducted at Vidya Academy of Science and Technology on 29th October, 2018. The Pre-Event was meant to engage students of inactive PES Student Chapters and give them an insight to the activities of PES and also introduce them to the Member Driven Initiatives of PES, by focusing on the features and reach of the main event, WIPS.

The event started at 10:00 am by the Inaugural Speech by Dr. Sudha Balagopalan, Academic Dean VAST, giving an insight towards the importance of Engineering and Technology and the crucial aspects of Research and Analysis in Academics. This was followed by the speech by Dr. Ramani Bai V, Head of the Department CSE VAST, in which a brief introduction to V-Cair (Vidya Centre for Artificial Intelligence and Research). The Inauguration Ceremony came to an end by the Vote of thanks by the Mr. Hari Prasad, PES chair of IEEE SB CEK. The second Half of the Pre-event during the afternoon included a session on the advancements on Electrical Engineering and Power Electronics by Dr. Sudha Balagopalan, Academic Dean VAST in which the new and emerging technologies in Transmission and Distribution of Electricity was discussed. This was followed by a session on Machine Learning, an introduction to the basic platforms and libraries which was taken by Mr. Ravishankar S, Assistant Professor ME VAST. Finally, the Event came to an end with the session by Mr. Hari Prasad, PES Chair, IEEE SB CEK, in which he gave an insight to the activities conducted by the PES Student chapter of IEEE SB CEK, MDI Programmes and the activities of PES Kerala Chapter.



WOMEN IN POWER SUMMIT

WIPS

9. WIPS (WOMEN IN POWER SUMMIT)

WIPS is a national level technical symposium of passionate and enchanting student engineers. The event was conducted for three days from 09/11/2018 to 11/11/2018. The event mainly focused on empowering girl students by enhancing their technical knowledge and by motivating them through the words of some eminent motivational speakers. The audience of the event was engineering students (both girls and boys) from all over Kerala. 62 participants from all over Kerala witnessed this grand event.

Day 1 (09/11/2018)

Registration for the event started at 8.30 AM. The inaugural ceremony started with a prayer at 10.00 AM. Following the prayer Ms. Anukrishna A J (chairperson, IEEE SB CEK) read out the IEEE code of ethics. IEEE SB CEK counselor Ms. Sabeena K delivered the welcome speech. The presidential address was given by Dr. Jaya V L (Principal, CEK). Ms. Ilakkiya IAS (Assistant District Collector Kollam) inaugurated the event by lighting the lamp and gave a short inaugural address.



Fruitful felicitations were delivered by Ms. Mini Ulanat (Chairperson, IEEE WIE AG Kerala Section), Prof. Biju K (MDI Coordinator, IEEE PES Kerala Chapter), Er. Shanu N (Coordinator, Kerala Section DLP) and by Mrs. Haseena P Y (IEEE PES SB Chapter Advisor). Mr. Hari Prasad (Chairman, PES chapter IEEE SB CEK) gave the vote of thanks.

After the inaugural ceremony, the chief guest Ms. Ilakkiya IAS gave a key note address and shared her 'Life Experience – The Way to UPSC' with the attendees. It was an amazing session and she spread her positive and vibrant attitude to all the attendees present there.

Following the interactive session there was a technical session handled by Ms. Mini Ulanat on the topic 'Disruptive Innovations'.

The event resumed after a lunch break at 1.00 PM. A technical visit to Rajiv Gandhi Combined Cycle Power plant owned by NTPC, Kayamkulam was conducted for the participants and coordinators of WIPS from 1.00 PM to 6.00 PM. After the technical visit, there was an 'icebreaking and networking' session handled by Mr. Jishnu Krishna (Secretary, IEEE CS chapter, Kerala Section). The next session was on the empowerment track handled by Ms. Sreepriya Ramanath (Co-Founder, Pehia Foundation). She took a brilliant session to invoke the young minds through her talk on 'Figure out the real You in You'. Day 1 of WIPS had a great climax with a heavy cultural night and dinner.

DAY 2 (10/11/2018)

The second day of WIPS started at 9.00 AM with three parallel workshops. The participants were given the opportunity to select the workshop of their interest. The Li-Fi workshop for Electronics and Communication aspirants attracted many participants and gave the attendees a clear idea about this wireless optical technology. 'Machine Learning' workshop for Computer Science aspirants were another attractive workshop of WIPS. Ms. Ramya R S and Ms. Sabeena K (Assistant Professors, CSE Dept. College of Engineering Karunagappally) handled the workshop and gained a lot of positive feedbacks from the participants.

'Electrical Garage' workshop for Electrical and Electronics aspirants was one of the unique surprises of WIPS. The participants got a wonderful opportunity to dig into the depths of electrical field through this workshop. The workshops ended at 4.30 PM. The next session on the empowerment track was taken by the renowned Radio Jockey R J Neena on the topic 'Women Empowerment'. The session gained a lot of appreciation and positive responses from the participants as well as the faculties. The next session was on the technical track handled by Mr. Shalvin P D (Corporate Trainer and Consultant) on the topic 'Web Development using Angular'. Day 2 ended with a grand DJ party and dinner.

DAY 3 (11/11/2018)

The sessions of third day of WIPS started with a vibrant session handled by Er. Anandhu S Kumar (Mentor, IEEE SB CEK) on the topic "The benefits of IEEE and PES membership". After the tea break there was a great session on the empowerment track handled by Ms. Zara Sheikha (Senior HR, Ford). She took an amazing session on "Gender Equality". The next session on the technical track was "An Overview- How to write a Technical Paper" handled by Er. Deepa A K (Associate Professor, SCT College of Engineering). After the lunch break the wind up session of WIPS 2018 took place with a small official closing ceremony which was followed by certificate distribution and a photo session.



10. CONTINUING EDUCATION FOR SENIOR SCHOOL GIRL STUDENTS

The IEEE Student Branch and Power And Energy Society of College of Engineering karunagapally had joined their hands to accomplish the new venture of Kerala Section Power And Society MDI project. The project "Continuing Education for Senior girl students" was conducted parallel at three different schools.

- 1.sankaramangalam*
- 2.Thodiyoor*
- 3.Thazhava*

The program was simultaneously started at 1:30 pm at three schools and was handled by 3 students in each school and ended up at 4:30 pm.

Sankaramangalam

The active participation from the 3 student volunteer made the programme a bog success in the school. Introduction to IEEE, Introduction and familiarisation to electrical engineering and an interactive section was carried out by Ganga (S4EEE),Jayakrishnan (S8EEE) and Abijith (S4EEE) respectively for around 50 students .The program was successfully ended at 4:30 pm.

Thodiyoor

The session for a number of 50 students was started with an introduction to IEEE by Archa S Sudhi (S6EEE), an introduction and familisation to electrical engineering by Harikrishnan (S8EEE) and ended up with an interactive section by Riya Elizabeth (S2EEE).The cooperation between the school management and our student volunteers was such a way that the program was successfully completed at 4:30 pm.

Thazhava

The section started by Hariprasad(S6EEE) with introduction to IEEE then an introduction and familiarisation to electrical engineering and an interactive section by Lida raj(S8EEE) and Akhil Ahammned(S6EEE) respectively. There was a total attendees of 60 Students in the school.

When the project was completed, the aim of the project, continuing education for senior school girl students was successfully conveyed among the new generation.

EVENT PHOTOS



We were the first to complete the program in kerala section and we were able to conduct the program at three different schools in kollam region parallely.

Number of Students Participated: 160

Benifits from the Program: Provided Awareness to the Senior School Girl Students and encouraged them to take Electrical Engineering courses in Higher Studies.

11. MICROCONTROLLERS AND ITS APPLICATION

IEEE SB CEK in association with PES and IAS Student Branch Chapter conducted one day workshop on arduino on 25th November 2018 the workshop mainly discussed basic programming , driver controlling , system integration etc.

Mr. Hari Prasad (PES Chair), took a session on the "Introduction to Microcontrollers" in which he explained several types of microcontrollers, Addons, circuits, projects, etc. The forenoon Session was completely dedicated to the theory and applications of Microcontrollers and a few discussions were made on the different projects that had a substantial use of Microcontrollers

Mr. Akshay Krishnan (SB Vice Chair) handled the workshop, involving programming and familiarization of different shields, during the afternoon session. The event concluded by 4:30 pm after a short questionnaire session.



12. ENERGY EFFICIENT LIGHTING FOR BPL FAMILIES (PES MDI)

The Project of Energy Efficient Lighting for BPL Families was a PES MDI Proposal which was Approved by the 2018 PES MDI Program and awarded a total of 2000 USD funding from PES HQ. The initiative was to provide energy efficient lighting for Below poverty line houses in Karunagappally village. The proposal was given by the PES SBC Chair Mr. Hari Prasad. Initially a survey was made for 100 Homes in the nearby village area and eligible house were shortlisted by the project team. Later the products to be delivered were purchased and organised according the requirements.

Later a team was appointed under the leadership of Mr. Akhil Ahammed, Vice Chair PES SBC, during which the requirements like LED Bulbs, LED Tubes, Fans, wiring requirements were analyses and recorded for each individual house. Then the products were delivered to the houses in presence of the family members and short talk was made on energy efficiency and problems of incandescent bulbs and benefits of LED bulbs were made. The project give a lot to learn for the volunteers in terms of Humanitarian values and Engineering ethics.

Number of Families benifited: 100+

What we learned from the Program: The IEEE SB CEK Team was able to understand the current situation and condition of the BPL Families and their access to lighting systems.



13. INDUSTRIAL VISIT TO KMML, CHAVARA (PES MDI)

The IEEE SB CEK in association with the PES MDI Proposal "Renewable Energy Workshop and Industrial Visit" conducted a visit to the Kerala Minerals and Metals Ltd (KMML) which is a one of India's prestigious public sector organizations operating under Indian Space Research Organization (ISRO) and Defense Research and Development Organization (DRDO). The IEEE student member including two faculty members visited The Kerala Mineral and Metal Ltd, Chavara on 07-Dec-18. The unit is focusing on Titanium dioxide mining, separation of synthetic rutile and pigment separation production plant. At first we were taken to pigment production plant, Mr

1. Chlorination
2. Oxidation
3. Slurry formation
4. Sand milling
5. Filtration / washing
6. Pigment surface treatment and finishing

And the session concluded with a meal.

Then we were taken to mineral separation plant. Mr sudharshan, production manager of mineral separation plant explained the plant's functioning. There we saw the mineral-rich sands taken from captive beaches for separation of ilmenite, rutile, monazite, silminate. MS unit employs gravitational, magnetic and high tension electrostatic technique for separation of minerals from the sand. At last all the students expressed their thanks to officials for 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 the theoretical knowledge to practical application of knowledge.



14. SOLAR PANEL INSTALLATION WORKSHOP

IEEE Student Branch College of Engineering Karunagappally in association with the PES MDI Proposal "Renewable Energy Workshop and Industrial Visit " conducted a workshop on "Solar Panel Installation" on 14th September 2018 . The program was started at 9.00 AM with a prayer. Ms. Anukrishna A J (Chairperson, IEEE SB CEK) read out the IEEE code of ethics. Welcome Speech was delivered by the Mrs. Sabeena K (Counselor IEEE SB CEK). Our beloved Principal Dr.Jaya V L persuaded the inaugural address.The morning session was the expert talk on the topic "Off-grid - also known as a stand-alone power system (SAPS) and On-grid - also known as a grid-tie or grid-feed solar system solar installation" by our chief guest. He explained the concept of Off-grid solar installation .the main advantage of On-grid over Off-grid installation and how the installation is carried out. The afternoon session was concentrated on the On-grid installation process and procedures. Also the students visited the on grid solar installation in our college and the expert described each points regarding the installation .thus the students members gained more collective information about the solar panel installation process.

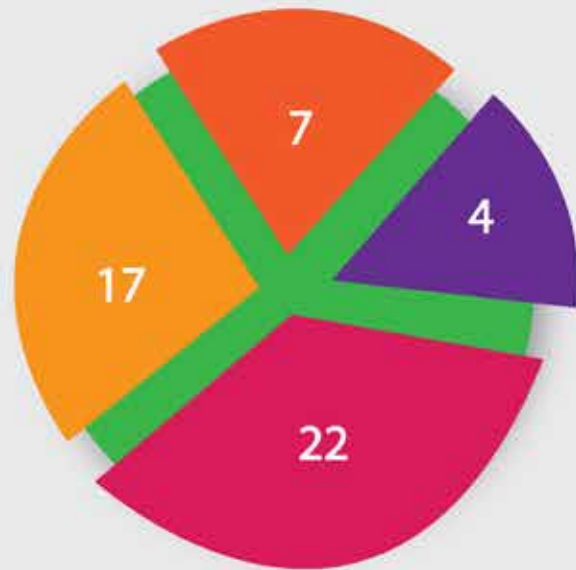
The aim of arranging this talk include not only to provide teaching on lighting technology and on the fundamentals of perception, but also to increase students' competence in lighting design so that in their studies they will be able to develop and fine-tune their designs following lighting design criteria.All the IEEE members actively participated in the session.



PES SBC MEETINGS

22 MDI Planning Meetings
 17 PES MDI Review Meetings
 7 PES Execom Meetings
 4 PES General Body Meetings

A total of 50 meetings were conducted officially by the PES SBC IEEE SB CEK, during the year 2018.



FUTURE PLANS

1. Extension of Tech Eve Program.
 - Involving more Technical Skills in to the Program and conduct more valuable skill development programs.
 - Conduct more Technical talks regularly to improve the knowledge of upcoming technologies.
2. LUXATHON 2.0
 - Conduct the second edition of LUXATHON, involve more sutdents in the Hackathon and improve the hackathon problem solving capability.
3. Regular Workshops and Technical talks like SDLP and DLP.
4. Organize more Industrial Visits and workshops in association with IAS.
5. Skill Development programs in association with IAS, RAS, WIE and CS.
6. Apply for PES MDI 2019
7. Take up more Humanitarian Projects inorder to understand the needs of the society and the areas where Engineering Students and IEEE Volunteers can provide some sort of Development to help build a better Society.



**POWER AND ENERGY SOCIETY STUDENT BRANCH CHAPTER
IEEE STUDENT BRANCH COLLEGE OF ENGINEERING KARUNAGAPALLY**

*Report Prepared by IEEE PES SBC Report Team
IEEE Student Branch College of Engineering
Karunagappally*

