

# DOUSIIE

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IEEE Industrial Electronics Society





IEEE IA/IE/PELS Jt. Chapter Kerala



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# **IAS CMD Awards**











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Outstanding Project Organizer



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# Winners of IEEE IAS CMD Outstanding Member Awards 2021













Outstanding Small Chapter Award
IEEE IAS SBC, College of Engineering Karunagappally

Outstanding New Chapter Award
IEEE IAS SBC, JCET Palakkad

Most Happening Chapter Award
IEEE IAS SBC, UKFCET Kollam

Most Happening Chapter Award
IEEE IAS SBC, RIT Kottayam

Winners of IEEE IAS CMD
Outstanding Chapter Awards 2021









#### **Robotics Contest**

Jerin Peter RSET, Kakkanad

Sharan Ratnakumar Sangeerth P Predhik C K VJEC, Kannur

#### Humanitarian Project Contest

Sharan Ratnakumar Amal Lukose Albin Baby VJEC, Kannur

#### Chapter Web Contest

IEEE IAS SBC College of Engineering Karunagappally Cliffin Cletus(Webmaster)



Winners of IEEE IAS CMD Contests 2021



#### EV Hack

EV Hack is an Electric Vehicles Online Hackathon organized by IEEE IA/IE/PELS Jt. Chapter Kerala, in association with Robert Bosch Engineering & Business Solutions India. This hackathon is exclusively for 3rd year undergraduate engineering students around PAN India. EV Hack provides ample opportunity for students to get industry exposure and to do projects that are of industry level with mentoring from experts of the Electric Vehicle Industry.



Virtual Poster

The winning teams of the Hackathon granted a 6-month internship, partly in RBEI and their Parent institute after meeting the BOSCH interview process. Third Year B. Tech Students spanning all over engineering colleges across South India who match the following criteria were eligible to participate: Pursuing B. Tech in EEE/Mechatronics/Instrumentation Engineering, do not have any present backlogs, have their 10th, 12th and B. Tech till date with more

than 70% or CGPA of 7 and above. A team of 4 members who match all the above mentioned criteria are eligible to participate.

The EV Hack ignited with a webinar series starting with a webinar on Overview of EV Components by Mr. Pradeep Kumar Keloth, Head of Engineering Electrification, RBEI followed by some more webinars which were on electric vehicles etc. As the event is mainly focused on the technological aspects of electric vehicles, the webinars and all the mentoring sessions were based on the same.

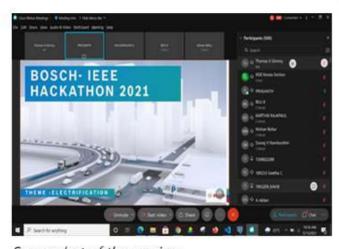
#### EV Hack Bootcamp

The bootcamp commenced by 10:00 am with a participation of more than 500 students from colleges all over South India. The session started with a brief overview about Bosch, regardings its objectives and services was shared by Er. Karthik Rajapaul, Deputy Manager HR at RBEI. Then, the problem statement was released by Er. Prasanth Pathiyil, Lead of CoE Electrification at RBEI. The problem statement was framed in such a way that it could test the critical thinking and knowledge of the participants in an effective manner. The technical session on System Engineering was handled by Er. Pradeepkumar Keloth, Head Electrification at RBEI. He started off with the fundamentals of designing electric vehicles and later on explained each and every design aspect including the various control systems. The speaker also discussed the modelling and simulation of EV. His session was well detailed and effectively delivered.

The bootcamp concluded by 01:00 pm with a Q&A session in which the participants raised several questions pertaining to the designing constraints, simulation and the problem statement. Throughout the session we could see an active participation by the attendees which clearly showed their enthusiasm towards the hackathon. This bootcamp would definitely help the participants to boost their knowledge and bring out their best at the hackathon.



Virtual Poster



Screenshot of the session

#### Hackathon

There was a total registration of 232 teams. Based on the eligibility criteria, 109 teams were shortlisted for the next round. Qualified Teams were requested to submit a manuscript based on the given Problem statement. 48 teams submitted their manuscript, out of which 25 teams were shortlisted for the final round. Selected Teams were requested to submit their presentation for the final round. The teams were evaluated based on their final presentation on 17th & 18th July 2021.

The final phase commenced on 17th July 2021 with an inauguration ceremony. The chief guest for the ceremony was Mr. Deepak Mathur, Director IEEE R10 and Mr. Vadiraj K, VP and CTO, RBEI. The keynote address was delivered by Dr. K R Suresh Nair, Chair, IEEE India Council. A Special delivered Address was by Pradeepkumar Keloth, head Engineering, Electrification, RBEI. The session covered most of the parts of the event as well as the problem statement. Other guests for the ceremony were Mr. Mohan Bellur, Mr. Prasanth Pathiyil, Dr. Bijunu Kunju, Dr. Biju K and Dr. Vasanthi V.

After the inauguration ceremony, the presentation round started .A total of 22 teams presented their solution on 17th and 18th July. The final results were declared in the Closing Ceremony, for which the Chief Guest was Mr. R K Shenoy, Senior Vice President, Mobility Engineering, RBEI. Other guests for the ceremony were Ms. Sarada Jayakrishnan, Mr. Pradeep Kumar Keloth, Prof. Prabin James and Mr. Mohan Bellur.

The top 3 teams were announced as winners. The first and second prize was

bagged by the teams from MA College of Engineering Kothamangalam and the team from VIT, Chennai secured the third prize. The winning teams were granted a 6-month internship, partly in RBEI and their Parent institute after meeting the BOSCH interview process.



Virtual Poster

#### **Ecospeak**

IEEE IA/IE/PELS Jt. Chapter Kerala organized a live JAM (Just A Minute) competition on 5th June 2021 celebrating the World Environment Day. The event was organized in order to instill a spirit of social responsibility towards Mother Nature in the participants. The topic for the talk was "Stand for nature, Speak in future"

Each participant was given one minute to describe the importance of environment protection. 18 students took part in the event. They were evaluated on their content quality and presentation skills. During the current scenario where the climate issues are pacing forward, an event of this genre was socially relevant and was the need of the hour. The participants put forward many innovative solutions and ideas to create a better tomorrow.

The students exhibited immense interest in the event and prepared thoroughly giving the judging panel a tough time to determine the winner. Ms. Joe Abel Vincent, RIT Kottayam bagged the first place and Ms. Meghana N.V., GCE Kannur received the second prize. The competition was successful in spreading awareness regarding the ongoing climatic changes among the future engineers.



Virtual Poster

# DLP on Power Electronics for Precision Farming with Sustainable and Cleaner Environment

As a part of the PELS Day Celebration, IEEE IA/IE/PELS Jt. Chapter Kerala organised a Distinguished Lecturer Program on Power Electronics for Precision Farming with Sustainable and Cleaner Environment on 20th June 2021. The session was handled by Dr. Brij N Singh who is the Technical Fellow in Power Electronics Engineering at John Deere Inc., USA

The session started by 8:00 PM, with a participation of over 40 members. The speaker walked the audience through the applications of Power electronics in farming through his well-structured presentation. He explained the topic in a brief pace and kept it interactive throughout. The evolution of farming techniques were at a rapid progress since the advent of power electronics and it was clearly depicted through his presentation. He also introduced some of the latest innovations at John Deere Inc. He urged the young engineers attending the session to inculcate knowledge and skills that would help solve the existing problems in the world. It was evident from the feedback that the session was truly beneficial for the attendees. The talk ended with a Q&A session at 9:30 PM.



IEEE OCISDAY

O REE M/R/FELS /F. Chapter Kerala

Virtual Poster

#### SBC Chairs' Meet

A meeting with all the SBC Chairs was organized on 5th July 2021 by IEEE IA/IE/PELS Jt. Chapter Kerala. The main agenda of the meeting was to discuss the future activities and to check on the updates of Vtools reporting. Each SBC Chair presented their activity schedule of the ongoing quarter and it was evident that all chapters were keeping up their impressive works. Later Sooraj V Namboothiri, Student Representative of IEEE IA/IE/PELS Jt Chapter Kerala gave a brief idea about the upcoming activities to be conducted by the joint chapter and requested to ensure maximum participation from each chapter. The meeting started by 7:00 PM and lasted for almost one hour.



Virtual Poster

# SBC Events

#### <u>May</u>

### Know your society

IEEE SB CEA in collaboration with IA/IE/PELS Jt Chapter Kerala conducted a membership development session 'Know Your Society' for all students in the SB. The session was conducted online through the Google meet platform on 1st May 2021. The session was handled by the Hub representatives of IEEE- Mr.Anandhu R Nair (Travancore Hub Student Representative IA/IE/PELS SBC Kerala);Mr JT Govindaraman.S(Kochi Hub Student Representative IEEE IA/IE/PELS JT SBC Kerala) and Ms.Haritha M E(Malabar Student Representative Hub IA/IE/PELS JT SBC Kerala).

The session begin with Mr.Anandhu R Nair, who gives an introduction on IEEEits history, societies etc. Then he move on to IEEE IA/IE societies- the benefits of being a part of these societies, conferences, events and other related stuffs. Later Ms. Haritha M E gave an idea on various opportunities such as Chapter Subsidy for Technical activities, Travel supports for conferences, annual meetings etc. She also talked about the CMD Outstanding Chapter awards and contests- its eligibilities, prizes and so on. The session continued with Govindaraman and he explained about the IES and PELS - its history, the benefits of joining the society and so on. He also talked on various events, conferences, opportunities and publications such as Industrial Electronics Magazine, Newsletters etc. Finally after the Q&A session, the meeting ended

# Workshop on Industrial Automation with PLC

The IEEE PES RSET SBC and IEEE IAS RSET SBC collectively organized a three day workshop on Industrial Automation with PLC conducted by Industrus Tech from 5th-7th May 2021. The workshop was handled by the experienced faculty at Industrus Tech. The daily sessions lasted for two hours from 5pm -7pm and around 63 registrants attended. The first session was an introduction into automation and PLC.

The second day of the workshop was a hands-on session as the topic of the logic gates. A software was given for the participants to download so that they could have a firsthand experience on how a program works. It was an interactive session and the participants frequently asked questions along the way.

The session was well received as almost all participants attended all the three sessions. As the topic was relatively new to everyone, the participants were very attentive and interactive. The chapter received excellent feedback from the participants and queries regarding more such workshops were received.



Screenshot during the session

#### Mission Start-up

Industry Applications Society IEEE Student Branch Chapter College of Engineering Chengannur organized a session titled MISSION START-UP on 8th May 2021. The session was handled by Arjun Pillai, Founder and CEO of Insent. ai and a dear Student Branch alumnus. The session commenced by 7:00 PM on 8th May and about 50 students attended the same. The session was dedicated to introducing attendees to the skills young entrepreneurs require. He told that success come to those who dare to live out their passion, no matter how obstacles and challenges try to deter them. The speaker explained his journey from CEO at Profound is to the Head of Data Strategy at Full Contact where he owned the data asset. Speaker suggested new and innovative methods to begin a start-up. The session was too informative and it sparked the curiosity of the participants which was evident from their responses and feedbacks.



virtual poster

#### Aquadeate 2.0

AQUADEATE 2.0, a presentation competition based on water technologies was hosted by Industry Applications Society Chapter of IEEE Student Branch, ASIET

on 9th of May and 10th of May, 2021 in accordance with World Water Day Celebrations, through an online platform (Google Hangouts Meet). The competition mainly focused to foster knowledge about water based technologies and to raise awareness of water and its conservation among students. Around 41 students participated in the event. The presentations covered a wide range of technologies such as cloud seeding, water generation billboards, hydroelectric turbines, AI in water technologies, hydro panel, hydro loop, aquaporin water channel technology, UAE water security system, water purification technology etc.

By the end of the session the participants were able to showcase the importance of water as a natural resource and potential of water based technologies towards a sustainable future. A feedback session where the participants provided their views on various aspects of the competition was also conducted and they were of the opinion that the event had a beneficial impact on them as they learned more about water-related issues and potential as a result of it.



virtual poster

#### Aquadeate 2.0 - Treasure Hunt

AQUADEATE 2.0, an online treasure hunt competition aimed for high school and upper primary school students was conducted by Industry Applications Society Chapter of IEEE Student Branch, ASIET on 9th of May 2021 from 10.00am to 7.00pm in association with World Water Day Celebrations, through an online platform (Google Forms). Around 25 students participated in the event. The judging panel consisted of Ms. Nayana J, Chapter Advisor, Industry Applications Society IEEE SB ASIET and Ms. Khadeeja Beevi MA, Chairperson, Industry Applications Society IEEE SB ASIET.

The treasure hunt mainly included questions & topics related to the latest innovations and technologies in the field of water that were specifically designed to convey the importance of water conservation among students. The competition ensured that the students were introduced to various water related technologies and also encouraged the students to capitalize their critical thinking abilities to arrive at the answers. A feedback session where the participants gave their views on various aspects of the event was also conducted by the end of the session.

### Hunt in Collab - Treasure Hunt

IEEE IAS MEA SBC conducted a virtual treasure hunt, 'Hunt in Collab' on 16th May 2021 at 3 pm. The virtual hunt was conducted through 5 different communities of IEEE Collabratec. The participants can participate as individuals or groups with a maximum of 3 members. The participants had to solve 6 clues in order to receive the treasure. Around 23 participants found the treasure in this game. The winners were those who found the treasure in a short time. About 245 students participated in the treasure hunt. There were 77 groups and 28 individuals participated. The objective of the 'Hunt in Collab', the virtual treasure hunt was to discover and explore the different communities of IEEE Collabratec, to solve problems related to those communities, test new ideas and experience the cooperation and teamwork between the participants. The event was perfectly organized. IEEE IAS MEA SBC got positive feedback from participants. They really enjoyed participating in this treasure hunt and gained a lot of information about each community.

### Membership Drive

INDUSTRY APPLICATIONS SOCIETY of IEEE SB College of Engineering Attingal had triumphantly accompanied a Membership Drive on 23rd May 2021. It was a one day online event for students' via Google Meet. IEEE SB Vice chair Mr. Abhijith A.R gave a brief introduction about the society in that session. IEEE Student Branch CEAL encouraged students to get an IEEE IAS membership. By conducting inclusive events in the college and actively involving the students in fun learning activities, IEEE IAS SBC CEAL did not fail to make its presence in the campus. This helped in getting more students to develop an interest for the membership. The events turned out

range of benefits that are available by becoming a member of these societies. There were 40 registrations for the session. The session was handled by Soorai V Namboothiri (Student Representative IEEE IA/IE/PELS Jt. Chapter Kerala) and Govindaraman S (Kochi Hub Student Representative IEEE IA/IE/PELS Jt. Chapter Kerala). It was conducted on the Google Meet platform on 22nd May 2021 at 7 PM. The session was very interesting. The speakers covered all the important benefits of becoming a member of these societies. The students actively interacted with the speakers and they gave positive feedback for the session.

# CANDLE - Workshop on Illumination Software

IEEE Industry Applications Society Student Branch Chapter College of Engineering Chengannur conducted a workshop titled CANDLE from 22nd May, 2021 to 24th May, 2021. The Workshop was handled by Arjun K R, BIM Electrical Engineer.

On 22nd May, the workshop started with about 40 participants at 7:00 PM. The first day of the workshop introduced the software, emphasizing on its applicability and future scopes. The session also dealt with the importance of proper lighting and energy savings in buildings. On 23rd May, the speaker showed a live demonstration of a CAD project in Dialux and explained how we should use it. To make even a beginner understand the software the speaker asked some of the participants to present their work and guided them to finish their selected CAD plan. At the

end of the session participants were assigned to prepare a work on the software as part of the hackathon. On 24th May, the last day of the workshop started at 7:30 PM all participants presented their work on screen, the speaker examined them and gave necessary suggestions.



virtual poster

# Hello Jarvis-Personal Assistant App Development Workshop

IEEE IAS SBC CETKr organized a 3day Personal Assistant App Development Workshop- HELLO JARVIS from 21st to 23rd of May 2021. The platform for the same was WebEx. The session was handled by Mr. Shyam Pradeep Alil (Co-Founder and Chief Operations Officer Infusory Future Tech Labs Pvt Ltd. The workshop was aimed at making the participants capable of creating a Personal Assistant App by their own. Prerequisites and instructions were shared along with the poster. A detailed released brochure was Registration fees for IEEE members were Rs.100 and for Non-IEEE members were Rs.150.

There were a total of 62 participants. The 3rd day had a Mini Hackathon, in

which teams were formed with 5 members each. And each team was provided with mentors for helping and clarifying the doubts of the participants. Each team was asked to come up with an innovative idea and must use the MIT App for implementing it. The duration of hackathon was 45 minutes. Group 11 won the first prize by creating a "BMI Calculator" and Group 13 won the second prize by creating "Read Up". First prize and Second prize winners were awarded with cash prize worth Rs. 1000 and Rs.500 respectively. The participants were highly gratified and exhilarated.

# Industry Exposure via Projects

IEEE IES SCET organized a webinar, "INDUSTRY EXPOSURE VIA PROJECTS" on 29th May. The session was conducted on WebEx platform. This was led by Mr. Shyam Pradeep Alil, Founder and chief operations officer Infusory Future Tech Labs Pvt Ltd. The session mainly focused on how to handle and develop projects. Deep insights regarding, development of project ideas and its importance than technology was also clearly mentioned. A clear picture about insights and implementation of project was drawn. The session was conducted with around 171 participants. The overall feedback was positive and the session was highly appreciated by all.

# Membership Developme nt Session

IEEE IES SCET in collaboration with IEEE IAS SCET organized webinar on membership development Session, conducted in Google Meet. The speakers were Thomas K Gimmy, link representative of IEEE Kerala chapter and Govindaraman S, Kochi hub student representative of IEEE Kerala chapter. The session mainly focused on various aspects and opportunities of IES and IAS societies. Speakers clearly mentioned the importance of IES and IAS societies. The session contained around 49 participants and the overall feedback was positive.

#### YP Talks - UX/UI Design

The Institute of Electrical and Electronics Engineers (IEEE) Industrial Application Society (IAS) Student Branch Chapter (SBC) at SNIT in association with IEEE Kerala YP organized a webinar session on UX/UI Design on 29th May 2021. The Speaker for the webinar was Ms. Ananya. R, Associate Software Engineer, Accenture. The main topics discussed in the session were best UI/UX practices, factors that affect UI/UX, areas and tools used in UI/UX design. The main topics discussed in the session were best UI/UX practices, factors that affect UI/UX, areas and tools used in UI/UX design.

#### Museo Identificar

As a part of International Museum Day IEEE IAS SBC of IEEE SB UKFCET had organised a guess at the historic archives competition named "Museo Identificar". There were a total of 53 registrants for the event among them 38 had participated. It was a non-technical event with the tagline 'History of light to test your brain'

Newfangled

Department of Electrical and Electronics Engineering in association with IEEE IAS SBC of IEEE SB UKFCET had organised a technical design Perspective named "Newfangled" with a view point to promote innovative thinking in the field of engineering design. The winners were awarded with a cash prize of 1K.



virtual poster

#### Drackskoker

As a part of World Dracula Day IEEE IAS SBC of IEEE SB UKFCET had organized a virtual debate competition "Dracstocker" based on the topic, Science Support Vs Paranormal Activities Support.

#### **Commit To Quit**

As a part of World No Tobacco Day IEEE IAS SBC of IEEE SB UKFCET had organized a Digital poster designing competition "Commit To Quit" focused on the theme lit the light of your life.

### Membership Development Session

IEEE IAS SBC SJCET conducted a Membership Development Session on benefits, opportunities, and awards of Industrial Application Society for the members of IEEE SB SJCET. The event was conducted on May 21st, 2021. The session

was taken by Sooraj V Namboothiri (Student Representative, IEEE IA/IE/PELS Jt. Chapter Kerala). The session was conducted from 7:00 pm - 8:00 pm on Google Meet. About 68 members participated in the session. Out of which 54 members were IEEE members and the rest were Non-IEEE members. The session started with an introduction to the IEEE Industry Application Society. The session was very useful for the attendees to learn more about the benefits of being an Industrial Application Society. He also talked about the awards and opportunities provided by IAS. The session ended by clearing the doubts of the attendees. Thus the session was useful for the attendees and had a great outcome.



virtual poster

#### Webinar: Industrial Automation

IEEE IAS SBC SJCET organized a webinar on the topic Industrial Automation on 23rd May 2021. The session was handled by Ms.Aishwarya Shaji, Program Analyst, Cognizant Technology Solutions. The session was conducted from 06:00 pm-07:00 pm on Google meet. A total of 101 members attended the webinar. Out of which 91 were IEEE members and 10 were Non-IEEE members. The session started

with an introduction to the topic. The session also discussed types of automation, closed-loop control systems, and open-loop control systems. The session ended up clearing the doubts of attendees. The session was truly beneficial and had a favorable outcome.



Virtual Poster

# Phrassion: Content Writing Competition

IEEE IAS SBC SJCET organized a content writing competition called PHRASSION. The event was conducted from 26th May 2021 to 31st May 2021. The topic for the event was cybersecurity protection systems. The participants can submit their entries through a google form. Proper guidelines were provided by the event coordinators. The students from different colleges participated in the competition. We got 20 entries in which 14 were IEEE members and the rest were non-IEEE members. It was a great platform for students to analyze their content writing skills. The winners were selected based on the best content.

#### Circuitron

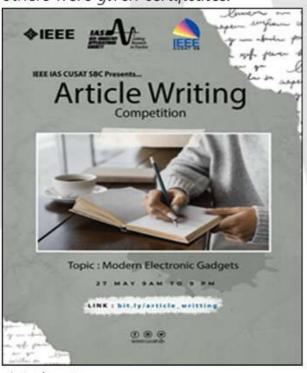
CIRCUITRON, a two-day workshop on Circuit Designing was successfully organized by IEEE IAS SBC RIT. The workshop provided a unique opportunity to learn and develop the skill of circuit designing in EasyEDA. The two-day workshop was conducted on the 17th and 18th of May 2021 from 10 AM to 11 AM. Abhijith Benny, Technical officer, IEEE RAS SBC RIT was the resource person. On the first day, the workshop explained the basics of circuit designing. On the second day, the workshop went into the deep knowledge of circuit designing. Various online circuit designing platforms were also introduced. The session was very interactive. Participants were able to clear their doubts. The workshop was very helpful for beginners. The event provided different experiences to the participants.

# Circuitron- 24 Hour Circuit Designing Competition

IEEE IAS SBC RIT in association with IEEE PELS Day celebrations, conducted CIRCUITRON: 24 Hour Circuit Designing Competition to all the circuit designing enthusiasts. The event aimed to create interest in circuit designing. CIRCUITRON: 24 Hour Circuit Designing Competition was conducted from 18th May 2021, 12 PM to 19th May 2021, 12 PM with a prize pool of 1k. The event had registration fees of Rs.40 for Non-IEEE members, Rs.20 for IEEE members. The competition was made free for IAS members. The competition ignited the curiosity of participants. This was a great opportunity for the participants to hone their skills.

### Article writing competition

An article writing competition was conducted on the topic "Modern Electronic Gadgets" by IAS CUSAT SBC on 27th May 2021 from 09:00 AM to 09:00 PM. The topic was announced along with the poster, and it was "Modern Electronic Gadgets". Participants were open to submit either handwritten copies or a document. Submissions were closed at sharp 9. All the articles were checked for plagiarism and evaluated by the content head. The winner was awarded an Amazon gift card and others were given certificates.



virtual poster

# Circuit Debugging Competition

An online technical quiz cum circuit debugging competition was conducted by Industry Applications Society Student Branch Chapter, RSET. Students from different departments of the college attended the event. Questions related to Embedded System, General Technology

and were given as questions in round 1. The quiz was conducted in Google Form with timer. Nearly 20 questions were given. Points were given on accuracy and time taken. The second round was conducted on the next day. Selected students from first round was allowed to take part in the next round. Second round consisted of circuit debugging questions which was answered in detail by the finalists.

#### Enlighten

A Career Development webinar Enlighten was conducted by IEEE Industrial Application Society SBC, RSET on 23rd May 2021 5:00 pm to 6:00 pm on the google meet platform. The session was handled by Mr. Jeffrin Jose, Software Engineer at RSET, Kochi. The topic for the talk session was his experience sharing on achieving Github's Helicopter contributor badge. He had played a role in developing the software of Ingenuity on GitHub. Nearly 100 students attended the event. Various aspects of career development were introduced to the participants. On the completion of the webinar, the participants were able to create a new definition of their career goal.

# Arduino and IoT internship

IEEE IAS SBC GEC Palakkad decided to collaborate with TechOne Technologies to provide a 5-day virtual internship experience. The Internship was based on 'Arduino and IOT'. Being a relevant topic in today's field of technology, keen interest was found in students to join the internship. There was a total of 57 interns. The goal of the internship was to leave the minds of the interns ready to be innovative and for them to be able to

build on their own. By the end of the internship, all interns gained a good knowledge of the said fields.

Every day, a 2-hour session was held and a small evaluation was also done on the same day. The sessions were handled by Mr Musafar and Mr Jinu of TechOne technologies. The sessions started from basics and progressed gradually to Arduino programming and more in- depth scenarios. The various circuits were simulated using software and apps. After the live interaction, doubt clearing support was also provided through a Whatsapp group. On successful completion of the internship, interns were provided with internships certificates which were provided by TechOne technologies itself.

# Just Memeing - Meme Maki ng Competition

IEEE IAS MEA SBC conducted an online meme competition on the topic-' Technology in Life'. The meme competition- 'Just Memeing' was conducted on behalf of National Creativity Day (30th May). The objective of this competition was to give an opportunity to show up their creativity to connect the seemingly unconnected things. The participants were asked to upload their meme on or before 30th May. There were 25 participants in the competition. Final judgments were made by the IAS executive members and three winners were selected. The competition was perfectly organized by IEEE IAS MEA SBC. The participants were given a platform to show their creative skills

#### <u>June</u> Let's Build PCB

IAS Chapter of IEEE SB GCEK conducted a PCB Designing competition- 'LETS BUILD PCB' following the Workshop 'Introduction to PCB Designing' held a week ago. The PCB Designing competition was held on 26th June 2021 at 6 pm. The event was open to both IEEE and non IEEE Members. About 90 participants registered for the competition among which 20 of them had participated. The PCB design question for the competition was provided via Whatsapp Group of the participants and a 3 hour time was provided. Participants were allowed to make use of any PCB Designing Software like Ki CAD, Eagle etc for circuit designing. Participants were directed to submit their entries within the stipulated time to the event coordinators. Entries of the Participants were evaluated by Shawn Alex Sony, Hardware Design Engineer, Mistral Solutions Pvt Ltd., who was the speaker of the PCB Designing Workshop.



virtual poster

Haritha ME and Akshay Sivadas of Government College of Engineering, Kannur bagged the first prize and the second prize was bagged by Bibin Biju Joshua, TKM College of Engineering, Kollam. The competition received satisfactory response from all participants as it enabled them to apply their understanding on workshop to design of a circuit through this competition.

### Level Up

IEEE IAS SBC MACE in conjunction with IEEE MACE SB conducted a one-day hands-on workshop on Tinkercad as part of LEVEL UP on the 4th of June 2021. The workshop was conducted virtually on Google meet. The speakers of the occasion were Mr Jaison Baby, Mr Aravind S and Mr Salvin Anthony Varghese. The main objective of this workshop was to supply the basic information of Tinkercad with hands-on practice. The workshop commenced at 4:00 PM and finished up at 5:45 PM. The session was given over to Mr Jaison Baby who exceptionally well portrayed the nuts and bolts of Arduino. Moreover, Mr Aravind S in a point by point way illustrated 3D displaying of a bot on Tinkercad. Afterwards, Mr showed us the Circuit reenactment of a keypad Lock System. In between different questions were cleared up. Through and through it was instructive and interactive. Around 107 students attended the workshop out of which 64 were IEEE individuals and 43 non-IEEE individuals.

# Intersecto - Crossword Comp etition

IEEE IAS MEA SBC conducted an online crossword competition on the topic-'Industrial Application'. The competition was held on 08th June 2021 at 04:00 pm. The objective of the crossword competition- INTERSECTO was to solve a crossword puzzle with a set of clues. This helps them to enhance their knowledge about the industrial application. The participants were asked to upload the screenshot of their filled puzzle in a Google form before 05:00pm. The participants had to solve 25 questions within the given time limit. The winners were those who solved the crossword puzzle in a short time. About 91 students participated in this crossword competition. The crossword competition was perfectly organized. IEEE IAS MEA SBC got positive feedback from the participants.

# Step Up - Embrace the World of Electronics

IEEE Industry Applications Society Student Branch Chapter College of Engineering Chengannur was jubilant to organize STEP UP as a part of IEEE PELS day, on 9th June 2021. During the competition participants were required to present a short video of themselves explaining about the given topic while being on live via Google Meet. Some of their presentation topics were laser diode, OLED, semiconductors, arduino, microcontrollers, applications of electronics in the medical field, Peltier module. Being the coordinators of this event, we were satisfied to see that the students took the competition seriously and attended it with great preparations.



virtual poster

# Go Get 'em! - Crossword Competition

IEEE IES SBC College of Engineering Perumon had conducted GO GET 'EM! a Crossword competition Power on Electronics as part of IEEE PELS DAY2021. The prime aim of the event was to make students aware of power electronics through some questions in crossword form. Participants are made to attend the questions within a limited time for about 10 minutes. Event was released on 27th June, 2021 at 7pm. Registrations were collected till 29th June, 2021, 10pm. The event was conducted on 30th June, 2021 at 7pm and the submission form was closed by 7:10pm. This was a technical competition on section level.

#### **IMPERIUM**

Imperium, a technical event was hosted jointly by the Industry Applications Society Chapter of IEEE Student Branch ASIET and PELS Day Ambassador from the 15th of June to 20th of June 2021 in accordance with PELS Day Celebrations through various online platforms. Around 136 Participants attended the event. It was a two round competition specially curated for both IEEE and Non

IEEE members alike.

The participants were divided into groups for both rounds of the competition. The first round consisted mainly of two phases. The first phase included an online quiz consisting of both technical and non technical questions which was implemented successfully as an ice breaking event. An online treasure hunt based on IEEE Power Electronics Society was conducted as the second phase through IEEE Collabratec and it encouraged the participants to collectively contribute as a team. Later, a session on the topic "Circuit Designing and Debugging" by Mr Abhilash Surendran was conducted which gave the participants an introduction on the same and it turned out to be an interactive one where the attendees raised several questions regarding the topic. Imperium became a platform to gain technical knowledge as well as provided the participants with plentiful networking opportunities. A feedback session where the participants gave their views on various aspects of the event was also conducted at the end of the session.

#### Industrio

Industrio, a membership development session, was hosted by the Industry Applications Society of IEEE Student Branch, ASIET on 27th of June, 2021 from 7.00 PM to 8.00 PM through an online platform (Google Hangouts Meet). Around 68 participants attended the event. The session was handled by Mr. Sooraj V Namboothiri, Student Representative, IEEE IA/IE/PELS Jt. Chapter Kerala. The session commenced with the history of IEEE and its relevant motive to foster ever

While the speaker was able to paint a clear picture of the humanitarian goals and ideas that were emphasized by the founding fathers, he was also successful in providing the beneficial roles played by IEEE towards the betterment of his professional career. Later participants were given an introduction on IEEE Industry Applications Society and in what method it facilitates the growth of theory and practice in the design, development, manufacturing and application of safe, sustainable, reliable and smart electrical systems, equipment, and services. The session turned out to be an interactive one where the participants raised various questions about the topic. Also it succeeded in highlighting the importance of IEEE and how its members inspire a global community through its publications, conferences, and technological standards.

#### **HUNT WITH LOGICS**

IEEE SB GECK conducted an online treasure hunt 'HUNT WITH LOGICS' as part of PELS Day celebrations from June 11 to June 13.The event was a 3 day treasure hunt based on Electrical circuits and components. There were a total of 110 registrants and almost every registrants took part in the hunt as well. The event was conducted through the instagram page of IEEE SB GECKKD. The event commenced from 11 June by 6.00 PM. A question was given to the participants along with 3 hints each with a time gap if 15 minutes and they were to Submit the solution for the question within 7.00 PM. Points were awarded to the participants based on the response speed. The final day, 13 June was a

jackpot. The winners were decided on the basis of total points secured by the end of 3 days. Akshay Paul, a second year EEE student of GCE Kannur secured the first position and Gayathri K, a second year ECE student of GEC Kozhikode secured the second prize. A total Cash prize of Rs. 500 was also provided to the winners apart from certificates. The event was coordinated by Akash Jithesh and Fathima Lulu. Overall, the treasure hunt was really a great success and also contributed a lot towards increasing the popularity of IEEE SB GECKKD through Instagram.



virtual poster

#### Talk A Circuit

IEEE IAS SBC GEC Kozhikode conducted TALK A CIRCUIT, a circuit describing competition on 15 June 2021. The event was organized as a part of PELS DAY Celebrations 2021. The competition was to describe the given circuit in the given time. The competition was open to all colleges and we had 35 participants from 11 colleges. The event was scheduled at 15 June 2021. The participants were given an electronic circuit by 9. 00AM and they were given a time of 12 hours to describe the circuit. The participants were asked to send an audio file describing the circuit in the

best way they can. Among them,5 participants were selected for the second round. The second round was scheduled on the very next day. They were given another circuit and the rules were the same. Abitha C T and Sitha V R, two second year Electronics and communication engineering students of GEC Kozhikode were selected as the winners. Winners were given cash prizes and certificates.

### Brainstorm-Power Electronics Quiz

IEEE IES SB SCET organized a quiz competition 'BRAINSTORM' in accordance with PELS day. The event was conducted on 28th June 2021 at 5PM to 9PM. The quiz competition mainly focused on the basics of Power Electronics. 200 students registered for the event among which, there were 146 IEEE members. The main intention of the event was to build the basics of Power Electronics in students. It was conducted around with 145 participants and the overall feedback was positive.

# Two Day Hands-on Machine Learning Workshop

IEEE Student branch at SNIT in association with TechByHeart had organized a power packed and vibrant two day workshop on the topic: "Machine Learning". The speaker for the session was Mr.Shamsudheen Marakkar, Founder CEO & December 2007, Apes AI, Cofounder & CTO, Molecular Robotics. The main topics discussed in the day one session was about Introduction to the workshop, Python for Machine Learning, Basics and Theory, Libraries and

frameworks, Dataset Data and Preparation, K-Nearest Neiahbour Algorithm, Linear Regression, Logistic Regression, Softmax Regression, Support Vector Machine (SVM). The main topics discussed in the day two session was about MLP, Artificial Neural Network, Deep Neural Network, Time Series Series Forecasting, Analysis, Time Computer Vision, OpenCV, Convolution Neural Networks, Famous Architectures, Transfer Learning and Unsupervised Machine Learning. The session was really incredible, engaging, informative, inspiring for each and every participants.

#### **Campus Ambassador Program**

IAS student branch chapter at SNIT has organized a Campus Ambassador Program to enhance the recognition of our workshop held in the campus. The event started by providing a guideline brochure, explaining the program goals, prize eligibility criterion, communication decorum of the group, different tasks levels, threshold targets to complete, point distribution and methodology of submitting the given tasks. All the campus ambassadors were given individual referral codes before the tasks. The leadership board was published at the end of each task and the campus ambassadors were requested to update their works in their Google drive folder which was accessible by the authority. The winners of campus ambassador program declared on were June 2021 and all the participants were given the certificates of appreciation.

# Webinar on Cyber Security Process Modelling Solutions Complex Engineered Systems

IEEE Student branch and IEEE IAS SBC had organized a power packed and vibrant webinar session on the topic: "Cyber Security Process Modeling Solutions for Complex Engineered Systems". The speaker for the session was Professor Paul G Ranky, PhD, NJIT, USA, Mechanical and Industrial Engineering Dept. The session was really incredible, engaging, informative, inspiring for each and every participant. The speaker had shared his valuable time and knowledge for his audience

# Webinar on Grid Moderniza tion: Renewable Energy And Smart Grid System

IEEE student branch at SNIT & IEEE IAS student branch chapter at SNIT in collaboration with SEEM SC SNIT has organized a vibrant webinar session on Grid Modernization: topic: Renewable Energy And Smart Grid System. The Speaker for the webinar was Mr. John McDonald, Smart Grid Business Development Leader, Grid Solutions. The main topics discussed in about the session was Key Industry/Societal Trends, Smart Grid Concept, Holistic Solutions, Integration Of Micro Grids And Distributed Generation, **ADMS** Software Application, Types Of Data, Big Data, **Analytics** And Enterprise Management, Smart Grid Standards And Interoperability, Smart Grid Deployments Lessons Learned.

and Data frameworks, Dataset Preparation, K-Nearest Neighbour Algorithm, Linear Regression, Logistic Regression, Softmax Regression, Support Vector Machine (SVM). The main topics discussed in the day two session was about MLP, Artificial Neural Network, Deep Neural Network, Time Series Analysis, Time Series Forecasting, Computer Vision, OpenCV, Convolution Famous Networks, Neural Architectures, Transfer Learning and Unsupervised Machine Learning. The session was really incredible, engaging, informative, inspiring for each and every participants.

# YP Talks-3D Printing:Additive Manufacturing-Model To Pro totype

IEEE student branch at SNIT & IEEE IAS student branch chapter at SNIT in association with IEEE Kerala YP has organized a vibrant webinar session on the topic: 3D Printing: Additive Manufacturing - Model To Prototype. The Speaker for the webinar was Prof. Shankar J, Asst. Professor (ECE) -College of Engineering UKF. Technology. It was conducted via Google Meet platform. The main topics discussed in the session was about Workshop Objective and Outcome, Introduction to 123D, Ultimaker Cura 3.0, Modeling in 123D Design, Familiarizing Cura 3.0, How to use FABLAB around Kerala, Product Development Life Cycle of Robot, A Live Session on 3D Printing, Introduction to Bot, Agronomics, Specifications. The session was found incredibly good as it gained lots of positive feedback and appreciation.

#### **EXPLORA-Virtual IV**

EXPLORA was a Virtual Industrial visit at the Schneider Electric Pvt Ltd. (a multinational electrical equipment company) Smart Factory, Hyderabad. It was organized by the PES and IES-IAS Joint Chapters of IEEE SB CEA. We thought that there was no better host for this visit than Schneider Electric Pvt Ltd. Schneider Electric is a multinational company providing energy and automation digital solutions for efficiency and sustainability. It addresses homes, buildings, data centers, infrastructure and industries, by combining energy technologies, real-time automation, software and services. The company has operations in over 100 countries and employs 135,000+ people. The event was exclusive to the students of the College of Engineering Adoor and was mainly focused on students from the EEE and ECE departments' of4th and 3rd year. The Virtual Industrial Visit started at 11 AM IST on the 19th of June 2021 through the Microsoft team's application. The IV was conducted through an interactive virtual reality software that showed a 360 degree view of the Smart Factory at various points in its location. This interface was presented to the delegates through the Teams app. The participants were first given the safety instructions that they should follow when visiting the site in physical mode. An overview of the Smart setup of the factory was then given, showing all the advanced technology used in the Smart factory. Then various assembly sections and quality control and quality testing facilities were shown through the interactive 3D software. The team explained each part thoroughly and cleared the doubts of the students along the way of the Virtual IV. The event was well attended by 160 students and saw a great participation.

#### **IDEATION 21**

IEEE IAS/ IES JT SBC CEA organized an IDEA PITCHING competition IDEATION21 to give the students an opportunity for developing ideas related to Masks, the powerful weapons that protect us from coronavirus. The topic of the competition was Disposal of masks. The participants of the competition were given a time period of 3 days to present their ideas in the format of a report and submit it along with some additional instructions which were provided to the participants prior to the competition. Wearing masks is an effective way of preventing the spread of the infection and they have become a part of our outfit, but they could be disastrous for the environment and the environment is in danger of being another victim if masks are not disposed of carefully. Hence disposal of masks is a necessary subject that needs to be tackled with. The competition was conducted as an event and the deadline for the competition was 10th June 2021. We had received 85 entries that were further reviewed by a panel of judges who were experts in the respective field and the winners were selected and provided with the certificates.

# IMPERIUM - PELS DAY QUIZ COMPETITION

IEEE SB CEA in association with Industrial Applications Society & Industrial Electronics Society had conducted an an online Quiz Series 'IMPERIUM' on the topic 'Power Electronics, Sustainability & Electric Fields' as a part of PELS Day Celebration 2021.

Quiz Competitions are always interesting and informative, which provides excitement and competitive spirit among the participants. 'IMPERIUM' mainly consists of 20 questions based on Power topic Electronics, Sustainability & Electric Fields. It was conducted through Google Forms. The respective questions were prepared by the responsible team. Rules and regulations of the quiz were informed earlier and the participants joined the competition through the link that was provided. It was a very informative as well as knowledge enriching competition for all the 30 participants.

#### GALAIT

As a part of World Milk Day IEEE IAS SBC of IEEE SB UKFCET had organised a spectacular Exposit competition "Galait"

#### **ECOTOPIA**

As a part of Environment Day, IEEE IAS SBC of IEEE SB UKFCET had organized an Idea Presentation competition, "Ecotopia". The event was focused on the tortures faced by our environment due to the technologies that are overcome by the implementation of new ideas related to sustainable technologies along with the tagline To take thorns by thorns.

#### **NERISSA**

As a part of World Ocean Day, IEEE IAS SBC of IEEE SB UKFCET had organized a PowerPoint Design Competition, "Nerissa" based on the theme Conservation of Ocean. The event was focused on various methods of ocean conservation since the ocean produces over half of the world's oxygen and absorbs fifty times more carbon dioxide than our atmosphere

#### AIMA

IEEE IAS SBC UKFCET in collaborate with IEEE Sight MACE SB has organised an awareness campaign and data collection on blood donors, "AIMA" as a part of World Blood Donation Day The event was focused on the Importance of Blood donation and how to be a part of that. Since, an adequate amount of blood is needed in all health care facilities to meet the urgent need for patients facing trauma and other lifesaving procedures, such as blood transfusion which saves a millions of life every year.



Virtual Poster

#### VIRTUAL TOUR – SCHNEIDER ELECTRIC PLANT

IEEE IAS SBC SJCET conducted a virtual tour to Schneider Electric Plant on 12th June 2021. The virtual tour was taken by Mr.Bhanwar Lal Bishnoi (Sr.GM R&D-Embedded Design & Development Centre at Schneider Electric, Vice-Chair- PES-IAS Bombay Section). The session was conducted from 11:00 am — 12:30 pm on Google meet. The session was also streamed live through the IEEE SB SJCET

YouTube channel. About 101 members participated in the session. Out of which 91 members were IEEE members and the rest were Non-IEEE members. The session was truly beneficial to the attendees. The session provides basic knowledge about the internal working of industries. The session was very useful for the attendees to learn more about the current trends in the functioning of a company. Virtual visits include Schneider Electric Factory inside look-Electronic manufacturing, Schneider Electric -smart factory Hyderabad plant, Lexington smart factory USA, New smart factory at Bengaluru. The doubts of the attendees were clarified at the end of the session. Thus the session was effective for the attendees and had a fruitful outcome.

#### POWER PUZZLE

IEEE IAS SBC RIT, as part of IEEE PELS DAY, organized POWER PUZZLE- a crossword puzzle competition based on power electronics. The event was aimed at creating an interest in students about power electronics. Power Puzzle was hosted live on the Instagram Page of IEEE SB RIT on 5th June 2021 from 5 PM to 6 PM. It had ten questions related to power electronics. Milen Ninan Ittyeipe of College of Engineering Kidangoor was the winner. The event motivated the students to take part in further competitions. Also it made participants aware of IEEE membership benefits.

#### **ELECTRO VISION**

IEEE IAS SBC RIT as part of IEEE PELS Day Celebrations conducted ELECTRO VISION, a webinar by Dr Jose Titus, Assistant Professor, Electrical & Electronics

Department, Rajiv Gandhi Institute of Technology Kottayam on the topic Power Electronics in the Modern World and Future Prospects, on 19 June 2021 from 6 PM to 7 PM. He shared many valuable insights on the different applications and concepts in power electronics. speaker simplified complex points like the vector control methods with simple examples such as that of the dog leash, which made it easier for the participants to grasp. The webinar became a remarkable opportunity to explore the prominence and potentials of Power Electronics, the big wheel technology in EV and Green Energy.

### **Blogging Competition**

IEEE IAS SBC RIT successfully conducted a blogging competition as part of IEEE PELS day celebrations on the topic "Role of Power Electronics in the 21st Century". The blogging competition received seven excellent entries. Sumayiah Arshafudheen of TKM College Engineering, Kollam won the first place. The second place was won by Joshy S S of SCT College of Engineering, Trivandrum Neeraj S of SCT College of and Engineering, Trivandrum won the third place. The competition was successful in making the participants understand their blogging skills and abilities

### 'linkedin for Professional Growth'

IEEE IAS CUSAT SBC along with IEEE Kerala Young Professionals organized a YP Talk on the topic 'LinkedIn for Professional Growth' The guest speaker was Mr. Althaf Muhammad, System Engineer at Infosys. The session was

about how to use LinkedIn to showcase everyone's potential for better professional development. Participants were told about unspoken rules that need to be followed and how the platform works in general. Different features of the platform were also demonstrated.

# Challenges and Opportuni ties in Emerging Technology

An online webinar was conducted by Industry Applications Society Student Branch Chapter, RSET on WebEx platform. The session was handled by Mr. Abhishek Gupta, CEO, Hex N Bit Edtech Pvt. Ltd. The topic for the webinar was Challenges Opportunities & Emerging technology, this webinar was held on 10 June 2021 from 5.30 to 6.30 PM. nearly 100 students attended the event. The objective of the webinar was to highlight new possibilities of employment through skill up gradation and it also highlighted how different new technologies can be deployed for organizational efficiency improvement. The speaker was able to briefly cover the details about the latest trends of industry and its impacts in all fields like medical industry, education field etc. On the completion of the webinar the participants were able to know the importance of skill up gradation in this post pandemic era.

### YP Talk On Power of Communities

IEEE IAS SBC Jyothi Engineering College in association with IEEE Kerala YP organized an YP Talk on Power of Communities the speaker for the session was Ms. Ananya R Associate Software Engineer at Accenture.

The speaker covered the importance of communities, benefits, and awareness about self-learning, p2p learning, curiosity, building skills, networking, and togetherness. The session was highly informative and interactive.



Virtual Poster

### **Know The Day Series**

As an initiative to spread knowledge of the various important industry-related andTechnology-related days, IEEE IAS SBC GEC Palakkad started to create informative posters for the said days and widely released them to various social media platforms. The posters provide short and crisp information about the day. The posters are also aesthetic enough to please one's eye. At the end of each month, a guiz is also conducted based on the said days. In June, 2 posters were released. The first one was on June 3 -World Bicycle Day and the second on June 30 - International Asteroid Day. At the end of June, a quiz was also conducted.

### Speak the Future

To inculcate creativity in the mind of students, IEEE IAS SBC GEC Palakkad conducted 'Speak the Future'. Speak the future series was inaugurated by Prof. Muhammed Kasim S, Chairman, IEEE IA/IE/PELS joint Kerala Chapter. Students

can come up with their vision of how the future of technology will be and how it would change our world. The person can shoot a video of themselves explaining their views and this video will be posted in the IGTV section of our SBC's Instagram page. In June, one video was uploaded on our page in which Akshara Thrivi, IEEE IAS volunteer shared her views.

# Report on Circuit Designing Workshop

The Circuit Designing Workshop was conducted as a part of the Ex-Learn series of Excelsior 2021, the flagship event of IEEE SB GEC Palakkad. It was a two-day workshop conducted on 19th and 20th June 2021. The event was virtually conducted over Google meet. At the end of the workshop, participants got a good overall idea on circuit designing and they also got familiarized with circuit designing software and tools. It covered both the theoretical and practical fundamentals. The workshop was headed by Mr Abhijith Benny, Technical Officer, IEEE RAS SBC RIT and Mr Akshay C, Vice-Chair IEEE SB RIT and Former Technical Coordinator, IEEE PES Kerala Chapter.

#### Ravictus Quiz

Following the workshop conducted on 20th June a quiz was conducted on 27th June at 8pm in Quizizz platform. The winners were Swapna Prasannan of UKF College of Engineering and Technology, Dilna Maria Shibu of Vimal Jyothi Engineering College and Agath Hemachandran of Government College of Engineering Kannur.

#### Pacvod

Pacvod was an online circuit debugging competition on the theme, Power Electronics organized by IEEE SB College of Engineering, Kidangoor, conducted as part of IEEE PELS DAY 2021. This event was organized for students of all engineering colleges, and was conducted on 26th June 2021 from 8:30 am. It was a 24hour event and was closed on 27th June 2021 8:30 am. There were 143 registrations from numerous engineering colleges and 18 active participations. The competition was conducted in Tinkercad platform. In total, four circuits were provided to be debugged. The circuits had incomplete code and diagram. Participants had to find and correct all the errors in the circuit. After debugging circuits, Participants had to fill out a form attaching a video showing the circuit working and the code. Participants those who debug at least one circuit were awarded with a certificate. The winners were selected on basis of time taken and points achieved.

#### **Pacviz**

Pacviz was an online quiz competition on the topic "Power Electronics" organized by College of Engineering, IEEE SB Kidangoor, conducted as part of IEEE PELS DAY 2021. This event was organized for students of all engineering colleges, and was conducted on 25th June 2021 between 5pm and 5:30pm. There were 350 registrations from numerous engineering colleges and 275 active participations. There were a total of 30 questions and 30 minutes to complete the quiz. platform 'Quizizz' is time bound, so participants had to attend the quiz without wasting any time.

# Simulation of Power Converters: Using MATLAB/Simulink

IEEE PELS Day 2021 Celebrations of IEEE SB CET was started with an outstanding demonstration session on the topic "Simulation of Power Converters: Using MATLAB/Simulink" by Dr. Gopinath, the Chapter Advisor of IEEE PELS SBC CET. The session was about the various tools and circuits related to MATLAB, especially when one has to probe into the world of Power Electronics which finds its place almost everywhere now. As our speaker is an experienced faculty member of our college and has been associated with the Student Branch since its formation, the students were eager to attend the informative session handled by him. We had many registrations including from premium educational institutions of the country and all of them expressed gratitude for the session.

### Power Electronics: The Past, Present, and Future

As the flagship event of IEEE PELS Day 2021 celebrations, IEEE IAS/PELS SBC CET was delighted to have Dr. Biju K, Treasurer IEEE Kerala Section speak on "Power Electronics: The Past, Present and Future". It was roughly a one hour session where the speaker actively guided the students onto various modes and stories on the development of power electronics as a major decisive factor.

#### **SparkWIZ**

IEEE IAS/PELS SBC CET in collaboration with IEEE PES SBC CET, conducted an online open Quiz competition named "SparkWIZ" as part of IEEE PELS Day 2021 celebrations. The topic for the quiz was Electrical and Electronics Engineering and was conducted on a timed Google form which was open for 24 hours.

# Introduction to Robotics - Workshop

A workshop on 'Introduction to Robotics' conducted by IEEE IAS MEA SBC gave an informative session about technological advancements of robots. The main objective of the event 'Introduction to Robotics' was to familiarize the participants with the technical development of Robots. And also to promote scientific, technical education and marketing a particular make of robots. The workshop was handled by Mr. Anoof C, Co-Founder of Pibots and Frontend Designer and Mr. Hisham sha, Co-Founder of Pibots and Product Designer. This session was held on 20th June 2021 at 10:00 AM.The event was hosted by Ms. Ajisha.T, Secretary of IEEE IAS MEA SBC.It was an interactive session that lasted up to one and half hours.



Virtual Poster

#### DaziBao

IEEE PELS SBC GCEK celebrated PELS Day under the title "POWERIVA". The first event conducted under this was a poster-making competition. The event was titled "DaziBao". The competition was open to all IEEE members. The topic poster making given for "Sustainability and Renewable Energy" to make students aware of the importance of sustainable development and the use of renewable energy. A total of 25 participants submitted their posters through the Google form provided by the coordinators. From the entries the first prize was given to Ushmala B of Ahalia School of Engineering and Technology and the second prize was bagged by Jishnu K of Government College Of Engineering Kannur. The competition got positive feedback from the participants and overall it was a success.

#### Circuit X

IEEE PELS SBC GCEK celebrated PELS Day under the title 'POWERIVA'. The second event conducted under this was 'Circuit X'. a circuit designing competition. The event consisted of two rounds. The first round was conducted on 15 June and the second round was conducted on the following day, June 16. The students were allowed to register as individuals or as a group of two students. There were 22 individual registrations and 17 group registrations. The first round focused mainly on the identification and debugging of circuits. A total of 17 groups and 7 individuals participated in the first round. Of them, 6 groups and 4 individuals were selected for the second round. Those students who passed the

first round faced the second round which was actual circuit designing. In the second round, 4 groups and 4 individuals participated. The first prize was bagged by Meghana N V (individual participation) and the second prize was bagged by a group whose members are Aswin C and Hrishikesh Manoj. Anagha K Sasidharan was specially mentioned for her enthusiastic participation and her work. Overall the event received positive feedback.

#### Fenestra

IEEE PELS SBC GCEK celebrated PELS Day under the title "POWERIVA". A series of events were conducted under this. Of them, the third event conducted was titled "FENESTRA". This was a guiz competition. The coordinators of this quiz competition are Keerthana, Anusree Rajeevan, and Anupriya. The questions of the quiz were based on Power Electronics Society. The main aim of the quiz was to help students to get more information and ideas about the IEEE PELS. The guestions were selected in such a way that it covers almost all points about the society. This event was conducted exclusively for the IEEE members of the Government College of Engineering Kannur. The competition was conducted through google forms on 20th June 2021 at 7 PM. There were a total of 60 registrations and of them, 48 of them participated in the competition. Vishal Babu bagged the first prize and the second prize was bagged by Analiya Remidios. The event received good feedback from the participants in terms of its relevance and organization.

#### YP Talk - Basics of Power Electronics

IEEE PELS SBC GCEK celebrated PELS Day under the title "POWERIVA". A series of events were conducted under this. Of them, the fourth event conducted was a YP talk. This talk was conducted in collaboration with IEEE Kerala Young Professionals. The webinar was hosted on the topic "Basics of Power Electronics". The webinar was on 23rd June 2021 from 6 PM to 7 PM. The event was conducted exclusively for the IEEE members of the Government College of Engineering Kannur. The speaker for the webinar was Gitin Jacob George who is the CEO of DAFA Builders Pvt. Ltd. He gave the student members a very clear idea about power electronics. Topics he spoke of include the need for power electronics, power systems, switches, and their types. This was coordinated by Avani and Jijina. About 40 members from our SB registered and of them, around 35 attended the webinar. The event was welcomed by the attendees and received very good feedback.

### Tinkercad Workshop

The IEEE IA/IE Jt. Student Branch Chapter Jawaharlal College of Engineering and Technology had organized a Tinkercad workshop on 20th June 2021 at 7pm. The workshop was handled by Er. Anish MS, He is currently serving as the New Initiatives and project subcommittee coordinator, IEEE PES Young Professionals, Public Relations Coordinator- IEEE Germany Section, PES day region 8, Lead and Global relation Coordinator of IEEE PES young professionals Kerala. He is

pursuing his MSc in Embedded Systems at Universitat des Saarland's in Germany. He had completed his graduation in electrical and electronics engineering from college of engineering Adoor under CUSAT in 2018. The meeting had started at 7pm by the welcome address of Miss Krishna V Chairperson, IEEE IA /IE Jt. SB JCET. Around 120 participants attended the workshop. The speaker had conveyed various aspects of circuit connections, designs etc. with the participants. A auestion answer session was included in the session. As per the schedule workshop had been reached its end at 8:15pm by the vote of thanks.



Virtual Poster

#### Ravictus

Ravictus workshop organized by IEEE IAS SBC VJEC on solar technology was conducted on 20th June from 6PM to 7PM followed by a Q&A session with the speakers. The session was handled by Mr. Febin Thomas, Chief Executive Officer at Augzet Engineers and Mr. Ajin Jose, Business Development Executive at Augzet Engineers. They discussed various new technologies and opportunities in that field. The workshop was conducted at Cisco Webex Meeting and around 80 participants joined for the session.

#### Zigma#1

This is the first edition of the monthly survey series conducted by IEEE IES SBC College of Engineering Perumon. Survey was conducted on the topic, Online Education. The goal of this survey was to identify the effectiveness of attending online classes and the efficiency in course delivery. Event was started from 30th June 2021, 10:00AM and had a duration of 5 days. On 4th July 2021, 10:00 PM the survey was closed. The response got from the survey was evaluated and information is stored for the preparation of a detailed report. This was a non-technical Section level event.



Virtual Poster

### <u>July</u>

# Reconfigurable Digital System :for FPGA Driven Design

A webinar on the topic "Reconfigurable Digital Systems: A case study for FPGA Driven Design" was hosted by the Industry Applications Society of IEEE SB, ASIET in association with the Power and Energy Society Chapter of IEEE SB, ASIET and the Department of Electrical and Electronics Engineering, ASIET on 2nd of July 2021 from 5.30 PM to 6.30 PM through an online platform (Google

Google Hangouts Meet). The session was handled by Dr. Shreejith Shanker, Assistant Professor, Electrical and Electronics Engineering Trinity College Dublin Ireland.

The session commenced with the speaker illustrating the history of Reconfigurable Digital Systems. The speaker later emphasized that even though the programming was complex when compared with C, they possessed multiple advantages such as better performance, cost efficiency, simpler design cycles and adaptability. The attendees acquired knowledge on different prospects of Reconfigurable Design Systems especially FPGA Driven Design and its industrial applications.



Virtual Poster

#### Envisage

IEEE IAS MEA SBC conducted an automobile sketching competition -'ENVISAGE' on the topic - 'Sketch your Future Car'. The objective of the event was to boost up their imagination, creativity, and sketching skills. The participants were asked to submit their entries through the google form on or before 03rd July 2021. Final judgments were made by the IAS executive members and three winners were selected. About 10 students participated competition. The automobile sketching competition - Envisage was perfectly organized by IEEE IAS MEA SBC.

#### Realm#1

This was the first edition of Realm which is the monthly magazine released by IEEE IES SBC College of Engineering Perumon. Realm#1 mainly focused on the topic Electronic Control Unit (ECU). The goal of this event was to enhance the knowledge and facts on the topic. Magazine was released on 6th July 2021, 10 am and was made available for the readers. There was no specified platform. The edition was published with the help of Flip-Book.

### Prohype-Hype in Projects

This was the first edition of Realm which is the monthly magazine released by IEEE IES SBC College of Engineering Perumon. Realm#1 mainly focused on the topic Electronic Control Unit (ECU). The goal of this event was to enhance the knowledge and facts on the topic. Magazine was released on 6th July 2021, 10 am and was made available for the readers. There was no specified platform. The edition was published with the help of Flip-Book.

# Webinar - Publishing your academic research work at IEEE Conferences/Transactions

IEEE student branch at SNIT & IEEE IAS student branch chapter at SNIT has organized a vibrant webinar session on the topic: Publishing your academic research work at IEEE Conferences/Transactions on 10th July 2021. The main topics discussed in the session were about publishing experimental work, project work, consultancy work, research work, developing standards, monitoring quality and health, The session was found incredibly good

### IEEE CMD Session: Workplace Electrical Safety

IEEE IAS SBC SJCET organized a CMD Session on Workplace Electrical Safety on 06th July 2021. IAS Electrical Safety Committee Sponsored Presentations on Workplace Electrical Safety. The session was taken by Mr. Daniel Roberts, (Electrical Safety Consultant, Electrical Safety Solutions Inc.). The session was conducted from 06:30 pm - 07:30 pm He is also an IEEE Senior Member and Past Chair of the IEEE Industry Application Society Electrical Safety Committee. About 58 members participated in the session. Out of which 91 members were IEEE members and the rest were Non-IEEE members. The session provides an overview of workplace electrical safety. It safety policies, includes Electrical Elements of an electrical safety program, and Maintenance of Electrical equipment & systems. As such, the session was helpful to participants and resulted in an excellent outcome.

#### URJA'21

URJA'21 was launched on 31st July 2021 at 05.00 PM virtually by IEEE IAS SBC RIT. The event not only inaugurated URJA '21 but also celebrated our achievements at the IAS CMD Outstanding Awards 2021. URJA was initially set up in 2020; Er. David Eng, IAS Vice-President, inaugurated the first of URJA series on 17th July 2020. It is an Energy-Awareness Program Series initiated by IEEE IAS SBC RIT. It consists of a set of online events like workshops and webinars aimed at widening the perspective on energy conservation and the utilization of renewable energy resources. Now IEEE IAS SBC RIT is back with

URJA'21, a Volunteer Initiative Program Series, aimed to impart energy awareness among the budding Engineers with our theme for the year being "Renewable Energy and Sustainability". This is an amazing opportunity for young volunteers to develop their networking and organizational skills while indulging in energy conservation initiatives.

#### Article writing competition

IEEE IAS SBC GEC Palakkad conducted an article writing competition to rejuvenate young minds during this pandemic season. It was conducted from July 8th to July 12th 2021. It was based on the theme of electric vehicles and the topic "Electric-Vehicle adoption and Quality". The medium was English and articles were submitted via a Google form. A total of 6 articles were received. The first position was won by Sumayiah K Ashrafudheen of TKM College Engineering, won a price of INR300 and the article also stands a chance to be featured in 'Upthing', the official magazine of IEEE SB GEC Palakkad.

#### WRANGLE

IEEE IAS/PELS SBC CET in collaboration with IEEE PES SBC CET, conducted an online open Debate competition named "WRANGLE" as part of IEEE PELS Day 2021 celebrations. The debate was conducted for a team of two members. As a preliminary qualifying round, one member of each participating team was asked to present a video of not more than 2 minutes on the topic "Digitalization in the time of Covid" on 30th June from which two top performing teams were chosen for the final round. The final round was

conducted on 4th July 2021 on the topic "Industry and Individuals should continue with virtual platforms for Research laboratories and should actively promote such initiatives". Each round of debate had three sections: Constructive speech, Rebuttal Speech and Conclusion. The energetic and fun-filled debate came to an end with one team emerging at the top. The winning team members were Saranya Krishnan M and Salwa Firoz C M of Sree Chitra Thirunal College of Engineering.

# <u>August</u> Zigma#2

This is the second edition of the monthly survey series conducted by IEEE IES SBC College of Engineering Perumon. Survey was conducted on the topic, Cyber security. The goal of this survey was to assess the level of 'cyber security' among the students through a set of questions. Event was started from 7 August 2021, 10:00AM and had a duration of 5 days. On 12 August 2021, 10:00 PM the survey was closed. The response got from the survey was evaluated and information is stored for the preparation of a detailed report. This was a non-technical Section level event.



Virtual Poster

A Beginner's Guide on Research Paper Writing

On the 8th of August 2021, IEEE IAS SBC MACE organized a workshop on Beginner's guide on research paper writing. The workshop intended to provide students with a fundamental insight into the research paper writing. The workshop was taken by Ms Anupama Thakur Researcher at CSIR-CSIO | IEEE Global Strategy Young Professional Country representative, IEEE Photonics Society, USA. The workshop was conducted virtually on Google meet. She explained in detail the processes carried out while submitting a research article like developing the right mindset to be a researcher, the structure of a typical scientific journal article, citations and references and strategies in publishing it in a reputed journal. At the end of the workshop, there was a Q&A session in which Ms Thakur gave prompt and detailed responses to all the questions from the audience. The overall workshop was interactive and educational. A total of 79 students attended the workshop of which 28 were IEEE members and 51 were Non-IEEE members. It was visible from the feedback of the audience that the overall event was a success.

#### Neutrio

IEEE IAS MEA SBC conducted an online quiz competition - 'Neutrio' on the topic 'Nuclear Science'. The competition was conducted as a part of Hiroshima Day, through an online platform called quizizz on 10th August 2021 at 04:00 PM. Winners were selected based on accurate answers in less time. The objective of this

event was to enhance the knowledge of participants about 'Nuclear Science' and to bring a healthy competitive mind among them. The quiz competition was perfectly organized. IEEE IAS MEA SBC got positive feedback from the participants. The quiz competition helped them to acquire new knowledge about nuclear science.

# Introduction to Information Security and Ethical Hacking

Aiming to boost the engagements of its members, IEEE IAS SBC College of Engineering Chengannur conducted an interactive webinar on Introduction to Information Security and Ethical Hacking. The session was handled by Sachin Jose, a certified ethical hacker and security researcher cum instructor at Red Team Hacker Academy private limited. The webinar was scheduled at 6:00 PM on 8th August 2021

The feedback response at the end of the session clearly proved that it was helpful for the students in understanding about cyber security and ethical hacking. Both the speaker and IAS SBC got many positive feedbacks afterwards even from some teaching faculties and people from other colleges. Thus it helped the students to be cautious about online data breaches and getting hacked.



Virtual Poster

#### **IAS Members Meetup**

IEEE Industry Applications Society Student Branch Chapter College of Engineering Chengannur organized a Meet up on 19th August 2021 to interact with our fellow IAS members and analyze our performance while collecting feedback and suggestions. The meet up commenced by 7:00 PM with about 28 participants eagerly waiting to meet up in real-time. All of us interacted with our fellow IAS members which started by recapping about all the previous programs and collected everyone's feedback. We all discussed what kind of programs were preferred in future, to which the members gave a ton of ideas according to their interests.

The meet up helped to understand the fields and areas in which most members were interested and helped us to understand how satisfied they were in the past events.

#### Confab

On the 28th of August 2021, IEEE IAS SBC MACE supervised Confab, a web discussion on the subject of iOS Vs Android. The GD was conducted virtually on Google meet. The GD began at 4:00 pm and was carried out till 4:45 pm, around 18 students took part within the GD from different colleges out of which 8 were IEEE Members and 10 were Non-IEEE Members. The thought process of the bunch talk was to conduct a group discussion among the students, to watch their identity and abilities, capacity to examine the given subject and direct them on how to require a portion in Gather Discussions. The subject given was iOS Vs Android. Everybody within the GD

took part enthusiastically. Students seem to highlight numerous vital truths and figures approximately the subject. The effectively taken interest members were given certificates moreover. In general, the occasion went well.

# IGNITE-Article writing competition

IEEE IAS SBC of GECKKD in collaboration with the WIE AG of GECKKD organized an article writing competition as a part of Women Equality day 2021 and entries were collected till 28 August 2021. There were 16 entries. The topic was "Are women's rights globally endangered? " & the word limit was 200-300 words. Navya A S, third year Civil of Government Engineering College, Barton hill secured first position, Punya R, first year Civil of GECKKD secured second position and Garziya Jacob, first year Civil of College of Engineering, Trivandrum secured third position. It was an overall successful event and the entries were really good. The event was successfully coordinated by Pooja S V of S4 EC and Vrindha V Nair of S4 ECTE-Article writing competition



Virtual Poster

#### WEBINAR SERIES

IEEE SB CETkr jointly with PES ,IAS and WIE chapters of SB CETkr conducted a 'Webinar Series' event in collaboration with Kerala Engineers Association Bangalore Chapter on 22nd and 28th August 2021.

# Basics of Autonomous Driving

The session was handled by Ms. Betta Chandran, Engineering Group Manager APTIV Technical Centre India on 22nd August 2021 at 7pm. The session was held in Google Meet. The 1 hour session was very informative and helpful to gain an insight into topic. About 20 and above students took part in the webinar. The session ended with a very interactive Q&A session with interesting questions and relevant answers. Feedbacks and suggestions regarding the webinar were made to get from the attendees.

# Accelerate Your Success by Celebrating Your Failure

The webinar was taken by Mr. Shinto Joseph, Director of South East Asia Operations LDRA India handled on 28th August 2021. The session was held on Google Meet from 7pm-8pm. We received 50 plus students. The session was incredibly useful. The session was very interactive and interesting and received positive feedback from the participants. The webinar link and other details regarding the webinar were sent to registrants through Email. The program was well received, and gathered a lot of commendable responses.

Workshop on Ethical Hacking and Cyber Security

IEEE IAS SBC SJCET with Blackhat Academy conducted a virtual 4-day Hands-on workshop on Ethical Hacking and Cybersecurity from 27th August 2021 to 30th August 2021 from 05:00pm to 07:00 pm. Total of 80 attendees attended the workshop where 52 of them were IEEE members and 33 were Non-IEEE members. The keynote speakers of the overall session were Mr. Vaishnavu C V, Certified hacker, Electrical Engineer, and parallel partner in Blackhat Academy, and also Mr. Muhammad Ameen, Certified pentester, a parallel partner in Blackhat Academy.

Day 1 of the workshop dealt with Movie vs Reality. It included all the basics, setup, Linux commands, and practical live proof of hacking. Then the Day 2 of the session dealt with a practical hands-on session on Website and server hacking. Day 3 was all about practical sessions on WIFI and android hacking also including HID attack and web penetration testing. Day 4, the last day dealt with a live practical session on Instagram hacking and the dark web.



Virtual Poster

#### Tell your tale in 15 seconds

A video editing competition was conducted by a collaboration of IAS CUSAT SBC and WIE AG CUSAT on 24th August 2021 to create a platform where the students could express themselves through a 15 seconds video. Rules and regulations of the game were announced and forms to submit the entries were also provided. The topic was announced along with the poster and it was "Your Engineering journey till now". The submitted entries were shared as a story in the official Instagram page of IEEE CUSAT SB and the participants were tagged. Participants also gave catchy captions with their submission. Sonali Alex was announced as the winner. Winner was awarded Amazon gift card and others were given certificates.

# Know the day series

As an initiative to spread knowledge of the various important industry-related and technology-related days, IEEE IAS SBC GEC Palakkad started to create informative posters for the said days and widely released them to various social media platforms. The posters provide short and crisp information about the day. The posters are also aesthetic enough to please one's eye. At the end of each month, a quiz is also conducted based on the said days. In July, three posters were released. The first one on the day August 4 - Professional Engineer's Day, the second on August 12 - National Remote Sensing Day and the third on August 29 -International Day against Nuclear Tests. The posters were released through social media page of our SBC.

#### **SWEVEN**

IEEE IES SBC College of Engineering Perumon has conducted a blogging competition, Sweven for improving the knowledge of students in blog writing. The competition started on 25 August 2021, 5pm and the participants were given 4 days' time to write a blog on their own based on the topic provided. The topic given for this competition was 'Industrial visit expectation vs reality'. The goal of the event was to provide an opportunity for the participants to improve their blog writing skills and to express their views on the above topic. On 29 August 2021, 10pm the event was closed. This was a technical, SB level event.



Virtual Poster

#### Realm #2

This was the second edition of Realm which is the monthly magazine released by IEEE IES SBC College of Engineering Perumon. Realm#2 mainly focused on the topic Mechatronics. The goal of this event was to enhance the knowledge and facts on the topic. Magazine was released on 27th August 2021, 8 pm and was made available for the readers. There was no specified platform. The edition was published with the help of Flip-Book.

### Industrial talk on Electric Locomotives

An industrial talk on 'Electric locomotives' was conducted on 1st July 2021 from 7PM to 8PM using Google meet platform. The event was organized by IEEE IAS and PELS SBC NSSCE in collaboration with IEEE IA/IE/PELS Jt. Chapter Kerala. The prime motive of the session was to inculcate knowledge on electric locomotives. The session was handled by Er.Anjana Murali E, who is a section engineer at the electric loco shed, Erode. The event has active participation of 56 listeners.

The speaker initiated by giving a brief introduction to the electric locomotive and its classifications. She then began with the technicalities of the locomotive. She gave a brief idea about the pantograph, the main transformer, tap changer and auxiliary motors. She then shared the working of the braking system and traction motors. She mentioned about the various kinds of relays being used and gave an insight to the mechanical parts of the locomotive. Lastly, she gave an idea about the various safety items and coupling arrangements being used. The session ended with an inquisitive doubt clearance segment where the listeners raised their doubts and the speaker willingly answered those.

# **EV Hack winners**





# **IEEE PELS Day Photo contest**

# Congratulations





IEEE PELS SBC Govt. College of Engineering Kannur bagged Second Prize(\$300) in IEEE PELS Day Photo Contest



# **PESGRE - 2022**



IEEE International conference on Power Electronics, Smart Grid and Renewable Energy Kovalam, Trivandrum, Kerala, India. January 02-05, 2022

#### **IEEE PESGRE 2022**

#### **ABOUT PESGRE 2022**

The IEEE International conference on "Power Electronics, Smart Grid and Renewable Energy (PESGRE 2022)" is a biennial conference organized by IA/IE/PEL Jt. chapter Kerala. The conference is sponsored by IEEE Industry Applications Society, IEEE Kerala Section, IEEE IA/IE/PEL Jt. Chapter Kerala, IEEE Power Electronics Society, IEEE Power & Energy Society, and IEEE Industrial Electronics Society. The theme of the conference is "Power Electronics and Renewable Energy for Sustainable Development" and will be held from 2 to 5 January 2022 at Kovalam, Trivandrum, Kerala, India.

#### **CALL FOR PAPERS**

Technical papers are solicited on subjects pertaining to the scope of the conference that includes, but is not limited to the following topics:

- Power Electronic Converters, Control Systems, EMI/EMC
- Electric Drives and Electric Vehicles
- Smart Grid and Micro grid
- Renewable energy Resources, Distributed Generation and Grid Interconnection
- Energy Storage and Battery Charging Technologies

- . HVDC, FACTS, Power Systems and Power Quality
- Wide band-gap devices
- Lighting & illumination
- Energy policies & Standards
- Power Electronics Education

#### PAPER SUBMISSION

Authors are invited to submit 6-page full paper in standard IEEE format for review. All accepted and presented papers at the conference will be included in the IEEE Xplore Digital Library. Extended versions of all presented papers will be eligible for further review and possible publication in IEEE Transactions on Industry Applications.

For more details, please visit www.pesgre2022.org

#### **ABOUT THE LOCATION**

Thiruvananthapuram is the capital of the southern Indian state of Kerala. It's distinguished by its British colonial architecture and many art galleries. Kovalam is a small coastal town in the southern Indian state of Kerala, south of Thiruvananthapuram. At the southern end of Lighthouse Beach is a striped lighthouse with a viewing platform. Palm-backed beaches also include Hawa Beach and Samudra Beach.











#### **IMPORTANT DATES**

Paper submission Paper submission

01 MAY 2021 31 AUG 2021

01 OCTOBER 2021 15 OCTOBER 2021

General Chairs:

Dr.R. Sudharshan Kaarthik, IIST Trivandrum & Prof. Pragasen Pillel. Concordia University Canad

Organizing Chair: Dr.K.Biju, College of Eng

Dr.K.Biju, College of Engineering Munnar

TPC Chair:

Dr Jalson Mathew, GEC Thrissur

