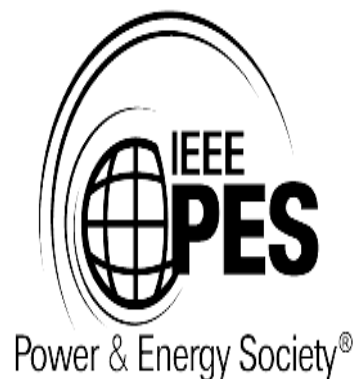


# **IEEE PES STUDENT BRANCH CHAPTER**

## **MARIAN ENGINEERING COLLEGE**



## **ANNUAL REPORT 2019- 2020**

**PRESENTED BY:**

**ANISH A KUMAR (IEEE PES MEC SBC CHAIRMAN 2019)**



# CONTENTS

PART A	CHAPTER SUMMARY	PAGE NO
		:
	A.1 Executive Summary	
	A.2 Financial Status	
PART B	ORGANISATIONAL ACTIVITIES	
	B.1 Membership Development Activities	
	B.2 Chapter Inauguration	
	B.3 Chapter Activities	
	B.4 Executive Committee 2020	
PART C	GOALS AND PLANS	
	C.1 Achievements	
	C.2 Goals and Future plans	

REPORT APPROVAL BY:

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Dr. VIJAYLEKSHMY S  
(IEEE PES MCE SBC ADVISOR)

# IEEE PES MCE SBC ANNUAL REPORT – 2019

## PART A – CHAPTER SUMMARY

### A.1 EXECUTIVE SUMMARY



#### Executive Committee Members of IEEE PES MCE SBC 2019

► **The Student Branch Geocode: SBC18901**

► **APPROVAL DATE : May 3, 2019**

IEEE Branch Counselor	Dr.Sheeja Agustin
IEEE PES SBC Advisor	Dr.Vijaylekshmy S
CHAIRMAN	Anish A Kumar
VICE-CHAIR	Jasmin Shanavas
SECRETARY	Akshay M
JOINT -SECRETARY	Lakshmi Gopinath
TREASURER	Anju M Babu
WOMEN IN POWER	Ria George
WEBMASTER	Manu M
VOLUNTEER HEAD	Sreekutty S L
TECHNICAL TEAM	Vishnu S R
CREATIVE HEAD	Akhila V S , Kokila S

## A.2 FINANCIAL STATUS

The summary of financial activities of the Student Branch Chapter as per audited report presented in march 2020 is as follows .

Net balance as August 2020	Rs. 13000/- ( management side)
Total Expenses of organisational activities	Rs 12000/-
Total Capital and Reserves as of march 2020	Rs 3600/-

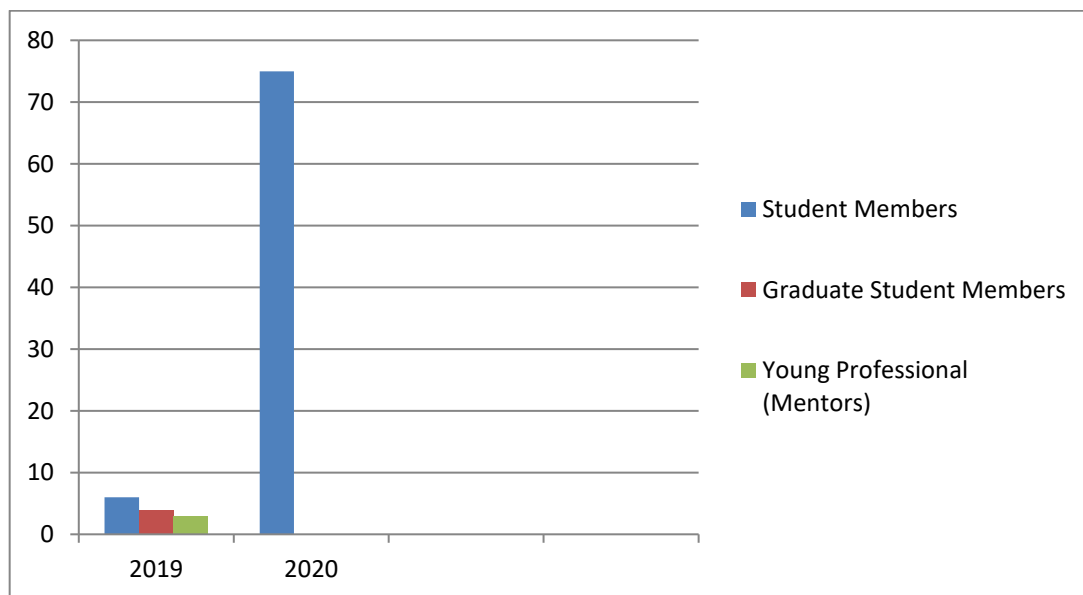
## PART B - ORGANIZATIONAL ACTIVITIES

### B.1 MEMBERSHIP DEVELOPMENT ACTIVITIES

**Total number of active members in the past 2 years**



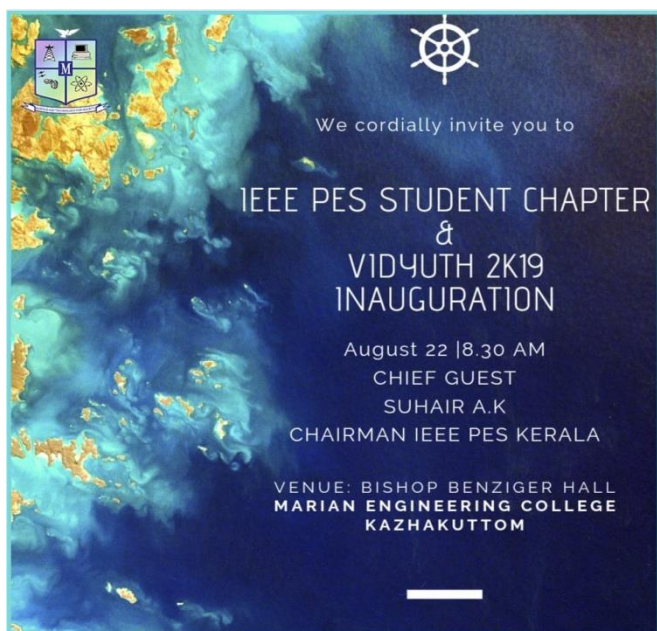
Member Grade	2019	2020
Student Members	6	75
Graduate Student Members	4	
Young Professionals (Mentors)	3	



## **B.2 CHAPTER INAUGURATION**

### **IEEE PES MCE STUDENT CHAPTER INAUGURATION 2020**

- DATE : 22 August 2019
  - VENUE :Benziger Hall , Marian Engineering College
  - TIME: 8.30 am to 11.00 am
  - CHEIF GUEST : Er . Suhair. A.K ,Chair man , IEEE PES Kerala Chapter
- Our Chief guest Er .Suhair.A. K , Manager Very. Rev .Fr Wilfred E , Director Prof Tomy Michael, principal Dr. Ruby Abraham , Head of the Department Mrs . Vijayalekshmy .S ,VIDYUTH 2019 coordinator Mr Sujith Kumar A. S ( AP EEE ) were present .
- The IEEE PES student Branch Chapter and VIDYUTH 2019 inauguration was held on 22August 2019 at Benziger Hall , Marian Engineering College Trivandrum .The welcome address was proposed by Anish A Kumar , IEEE PES MEC SBC Chairman, and annual report along with the year plan was proposed by Jasmin Shanavas , IEEE PES MEC SBC Vice Chair.
- The IEEE PES MEC SBC official site was released. The 3 phase regenerated certificates for the first and second prize holders for 6 different events were given . Felicitation ceremony for the top rank holders for current and previous semester KTU university exams were given to the students by the chief guest.After refreshments there was a small interactive session with chief Er. Suhair A. K , Chairman IEEE PES , Kerala Chapter .



*Talk by*

SUHAIR A.K  
CHAIRMAN,  
IEEE PES  
KERALA CHAPTER



- The IEEE PES MCE SBC and VIDYUTH 2019 site was officially inaugurated.
- <http://www.mecpes-vidyuth.tech/>





## KSEB POWER QUIZ

- DATE: 3<sup>rd</sup> October 2019
- VENUE : AD – 322, Marian Engineering College
- The IEEE PES Student Branch Chapter of Marian Engineering College along with KSEB organised the preliminary round of KSEB POWER QUIZ- 2019 on 3<sup>rd</sup> October 2019 . It was a 2 hour session which included two sets of questions namely A and B with 20 questions each .
- Officials from KSEB kazhakuttom and student volunteers of IEEE PES SBC coordinated the event . The event was open for all departments students and no registration fee were charged. Mrs. Sudha (Assistant Engineer KSEB kazhakuttom ) was the quiz master . More than 80 students participated in the quiz competition out of which two were selected as the qualifiers to the state level competitions. Winners were awarded Led lights and mementoes by KSEB. Winners were Manu Mohan (S8, EC ), Kokil M (S8, EC)







## PES QUIZ 2019

- DATE: 3<sup>rd</sup> October 2019
- VENUE :Mechanical department ,Marian Engineering College
- The prelims of the tenth edition of IEEE day quiz named “ PES QUIZ 2019 ” was organised by the IEEE PES MCE SBC on 3<sup>rd</sup> October 2019 .The event was opened exclusively for the first year students.
- More than 70 students from various domains including mechanical , civil , electronics engineering participated in the competition .Its was a pen and paper test .Questions for the test covered various subjects like kerala , science and engineering , general knowledge and current affairs .Two students were selected and got selection to the state level finals of PES QUIZ 2019.
- WINNERS : Jithin Thomas (S1, M2) , Saraswathy Devi S (S1, CS)



IEEE STUDENT BRANCH

MARIAN ENGINEERING COLLEGE

## PES QUIZ -WINNERS



JITHIN THOMAS  
S1 ME



SARASWATHI DEVI S  
S1 CS

The toppers will be eligible for participating in the State level finals of the tenth edition of IEEE Day quiz "PES QUIZ 2019" organised by IEEE PES Kerala Chapter.

## ENIGMA – ZENAGOG

- DATE: 8 , 9, 10 November 2019
- VENUE : Benziger hall , Marian Engineering College
- ENIGMA 3.0 was a 3 day technical event organised by IEEE SB at Marian Engineering College . The IEEE PES SBC organised an entertainment section consisting of fun filled games for the students . More than 40 students participated in the event named ZENAGOG – THE GAMING ARCADE. Participation certificates were issued on behalf of IEEE PES and VIDYUTH 2019 .



## QURIO -19

- DATE: 26 November 2019
- VENUE : Benziger hall , AD 203 , AD 204
- Marian Engineering College organised a tech fest exclusively for school students on 26<sup>th</sup> November 2019 . Students from more than 50 schools participated in them . The IEEE PES SBC along with VIDYUTH 2019 were entitled the role of conducting 3 main events namely Daz - Poster , Puzz- buzz and Trash-formation. More than 100 students registered for the events and our volunteers were able to host the event properly . Mrs. Reethu Dhanya and our PES advisor Dr.Vijayalekshmy S extended there guidance .
- An entertainment section was run from 10.00 am to 1.30 pm to increase student participation and exposure .Overall the event was a grand success and received many critical acclaims.



## TRAINING AT ENERGY MANAGEMENT CENTRE

- DATE: 22 February 2020
- VENUE : Energy Management Centre , Sreekariyam Trivandrum
- IEEE PES MCE SBC volunteers had a session with officials at Energy Management Centre, Sreekariyam Trivandrum . The session was all about training the volunteers about the various energy conservation practices that could be employed in our day to day lives. The volunteers were given a 3 hour session from 2 .00 pm to 5.00pm. The interactive session was headed by Aneesh Rajendran , Energy Technologist at Energy Management Centre.



As a part of the public outreach programme URJJA 2020 of IEEE PES SBC and Department Association 'VIDYUTH', students in the department of Electrical and Electronics attended a workshop 'Training the Trainees' on Energy Efficiency and Conservation at Energy Management Centre, Trivandrum on 22/1/2020.



## URJJA -2020

- URJJA-2020 was the first ever interschool technical fest collectively organised by the IEEE PES SBC of Marian Engineering College and VIDYUTH -2019 the Electrical and Electronics Engineering Association.



- URJJA - 2020 opened up new opportunities for students from various schools across Trivandrum to explore their technical abilities in large . With its charisma and effective organisation URJJA -2020 emphasized the importance of nurturing technical skills among school students. The active involvement and collective measures of IEEE PES SBC volunteers made URJJA - 2020 a memorable experience .



- URJJA- 2020 was a three week programme which officially began on 22 January 2020 and extended till 6 February 2020. During the course of URJJA - 2020 the IEEE PES SBC volunteers had the opportunity to interact with school students of both high school and higher secondary schools in Trivandrum district .
- The programme aimed to impart interest in aspiring school students for energy conservation and its efficient usage. Lecture sessions on energy conservation in the form of power point presentations and workshops on basic wiring and electrical accessories were organised . The students could utilize the knowledge attained from URJJA -2020 for public awareness in their locality.
- URJJA - 2020 had its initiatives and objectives grouped under five different programmes namely
  - URJJA-LABHAM – Talk on Energy Conservation and Auditing (By IEEE PES SBC MCE volunteers trained at Energy Management Centre, Government of Kerala).
  - URJJA- TATWA – Workshop on Basic Wiring and familiarization of Electrical & Electronics components.
  - URJJA- SAMASYA – Quiz on Energy Management.

- URJJA - KIRAN – Competition based on Energy Management & Auditing.
- URJJA -TANTRA – Project & Poster Exhibition on Energy Conservation and Saving (February 1, 2020)
- URJJA – 2020 TIME LINE



SL NO	DATE	ACTIVITIES
1.	22 February 2020	Training at Energy Management Centre ,Sreekariyam
2.	28 January 2020	Session on scope of electrical engineering at Government UPS Sreekariyam
3.	29 January 2020	quiz competition on energy management at St Josephs School, Trivandrum
4.	30 January 2020	Session on safety hazards for electric shocks at Our Public School Kazhakuttom
5.	1 February 2020	URJJA – TANTRA (poster competition and project expo) with more than 25 students from various schools participating .

6.	3 February 2020	URJJA – KIRAN, a programme which aims on creating awareness about energy conservation in daily life were hosted at Infant Jesus Central School, Kazhakuttom.
7.	5 February 2020	Workshop on Basic Wiring and familiarization of Electrical & Electronics components was organised at S N Public School .
8.	5 February 2020	URJJA – SAMASYA session at St Vincent High School
9.	6 February 2020	The students were given training on soldering and basic electric components at Cotton hill Girls Higher Secondary School, Vazhuthycaud



## Tech edge

Test or hone your technical expertise at Urjaa 2020

Marian Engineering College hosts Urjaa 2020, an inter-school technical fest. The fete is open to students from classes five to 12. Manu M, an organiser, says Urjaa aims at developing an interest among the youth towards technology. As part of the festival, there will be a poster design competition and a project expo based on energy conservation. The topic for the poster design contest will be given on the spot. Students can participate individually or as a group of three members each. Chart paper will be provided but students are required to bring their own stationery. Participants will be provided two hours to complete their posters after which they have to explain the idea behind their work to the judges.

Students can exhibit their completed project work at the venue for the project expo. The technical projects include electrical and electronics components. Participants must explain their project work, which has to be in line with the theme of energy conservation and management, to the judges. The fete also features a talk on energy conservation and auditing, a workshop on basic wiring and familiarisation of electrical and electronics components and a quiz on energy management.

**Urrja 2020 will be held at Marian Engineering College on February 1.** There is no registration fee.  
Contact: 8075242665/7356853360





## TECHIZARD – ONLINE QUIZ COMPETITION

- IEEE PES SBC of Marian Engineering College and VIDYUTH 2019 the Electrical and Electronics Association jointly organised an online technical quiz competition named TECHIZARD. The event coordinators were Anish A Kumar (IEEE PES MCE SBC CHAIRMAN) and MANU .M (VIDYUTH 2019 PRESIDENT).
- The registrations for the event were done via online registration portal through registration link which was released on 3rd February 2020. All the registrations were done via the official website of IEEE PES MCE SBC, <http://www.mecpes-vidyuth.tech/>. The event was open for all students from varying engineering domains. The registration fees was Rs 50/- which had to be paid online.
- The winner of tech quiz was Ms .Divya P V of computer science department 2nd semester student of MGM CET pampakuda, Ernakulam. The event was an overall success.



## DEBOGAGE – CIRCUIT DEBUGGING COMPETITION

- On behalf of Thomas Alva Edison's birthday IEEE PES SBC WIP of Marian Engineering College and VIDYUTH 2019 the Electrical and Electronics Association jointly organised DEBOGAGE, a circuit debugging competition . The event coordinators were Anish A Kumar (IEEE PES MCE SBC CHAIRMAN) and Ria George ( IEEE PES MCE SBC WIP )
- There were two rounds of competitions both were offline. The participants were given questionnaire consisting of 10 questions. The event was held at the electrical workshop, Marian Engineering College. More than 30 students participated in the competition.
- S Devika Rajesh (S4, EEE ) , Karthik S (S4, EEE ) and Mohammed Habeeb (S4, EEE ) backed the first second and third positions respectively.



## D- Relay Season 2 , International Energy Hackathon

- The second season of D Relay International Energy Hackathon which is the flagship event of IEEE PES MCE SBC was organized collectively by IEEE PES Student Branch Chapter of Marian Engineering College and VIDYUTH 2019, the Electrical and Electronics Association as part of Third PES Day Celebrations with direct sponsorship from Megabyte Technologies Ltd.
- The first edition of the event was conducted last year, which gained extreme popularity and appreciation thanks to the then organizers Mr. Jacob Thomas (Founder Chairman IEEE PES MCE SBC), Mr. Febin Ansan (Secretary IEEE PES MCE SBC) and Mr. Anoop Johnson (Treasurer IEEE PES MCE SBC) .
- Er. Ajith Gopi , IEEE Senior Member and current Vice Chairman of IEEE PES Kerala Chapter volunteered for being our final judge for the event. The question for D Relay was formulated by Mr. Febin Ansan (IEEE PES MCE SBC,

Secretary). The posters and registration link for D Relay were given publicity on a global level. D Relay attracted participants across the globe.

- This year we could receive registrations from Brazil, Germany and Srilanka. Participants could access the registration link through the official site of IEEE PES MCE SBC and VIDYUTH 2019, <http://www.mecpes-vidyuth.tech/>.
- On registration they received a link which carried the question of D Relay. The event officially began on 8 April 2020 and was active till 12 April 2020. Participants could submit their responses before 12 April 2020. The responses were shortlisted by Mr. Febin Ansan. The selected responses were sent to our judge Mr. Ajith Gopi for final judgement. Despite his busy schedule he took immense effort to provide us with the detailed judgement and to select the winners. Overall the event was a grand success in terms of participation and organisation.



## EXECOM – 2020

- IEEE PES MCE SBC considers the induction of vibrant and skill full volunteers into the Student Branch Chapter as one of its main objectives. IEEE PES MCE SBC had invited nominations from young minds to join EXECOM 2020. The volunteering link for EXECOM selection were circulated from 3 April 2020 and we had accepted nominations till 14 April 2020.

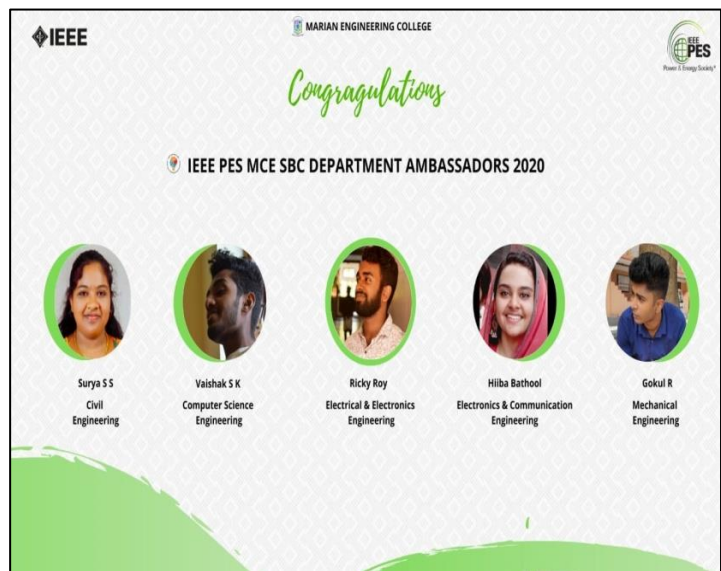
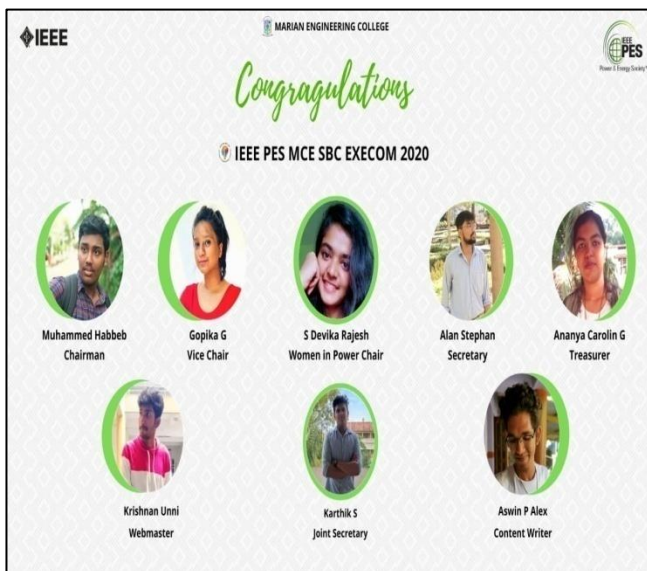


- Volunteers were asked to fill up a questionnaire which carried information regarding their previous volunteering experience in and outside the college and how do they look forward in working with IEEE PES MCE SBC.
- All the responses were recorded and sorted. Based on the responses we created a whatsapp group named IEEE PES VOLUNTEERS 2020 to make things easier. The EXECOM 2019 members felt the importance of sorting the volunteers based on their skills.
- Based on a collective decision of present EXECOM members and also our mentors, the students were given separate tasks which provided an opportunity for them to prove themselves.





- One of the major tasks was to bring registration to the then ongoing event D Relay, International Energy Hackathon organised as part of PES Day celebrations.
- The candidates were evaluated based on their performance in the tasks given to them, which eventually helped us to sort out the best among them . A rough view regarding EXECOM 2020 was drawn by 13 April 2020.
- An official training session for EXECOM 2020 was hosted for the newly elected execom members via Microsoft teams online platform where the EXECOM 2020 positions were finally revealed.



- The EXECOM training session involved 3 stages namely
- Session by **Mr. Jacob Thomas ( Founder Chairman of IEEE PES MCE SBC )** which threw light on History of IEEE PES , PES MCE SBC , Event Planning and networking , overview on flagship events .
- Session by **Mr. Anoop Johnson ( IEEE PES MCE SBC Vice Chairman 2018 )** which focussed on Handling multiple positions, crisis situations , career growth and finance management .
- Session by **Mr Febin Ansan (IEEE PES MCE SBC, Secretary 2018)** and **Mr. Manu M (IEEE PES MCE SBC Webmaster 2019)** on Photoshop training and website maintenance to the newly elected technical team members.
- **Mr Anish A Kumar (IEEE PES Chairman 2019)** addressed the newly elected execom members and took a webinar on " How to develop your organisational Capabilities " and act at times of crises .
- Candidates responded positively to the sessions and used it as a tool to improve their leadership qualities.



<b>EXECOM – 2020</b>	
IEEE Branch Counselor	Dr.Sheeja Agustin
IEEE PES SBC Advisor	Dr.Vijaylekshmy S
CHAIRMAN	Mohammed Habeeb
VICE-CHAIR	Gopika G
SECRETARY	Alen Stephan
JOINT -SECRETARY	Karthik S
TREASURER	Ananya Carolin G
WOMEN IN POWER	S Devika Rajesh
TECHNICAL TEAM	Krishnan Unni
	Aswin P Alex
DEPARTMENT AMBASSADORS	Surya S S ( CE )
	Vaisakh S K (CSE)
	Gokul R (ME)
	Hiba Bathool (ECE)
	Ricky Roy (EEE)

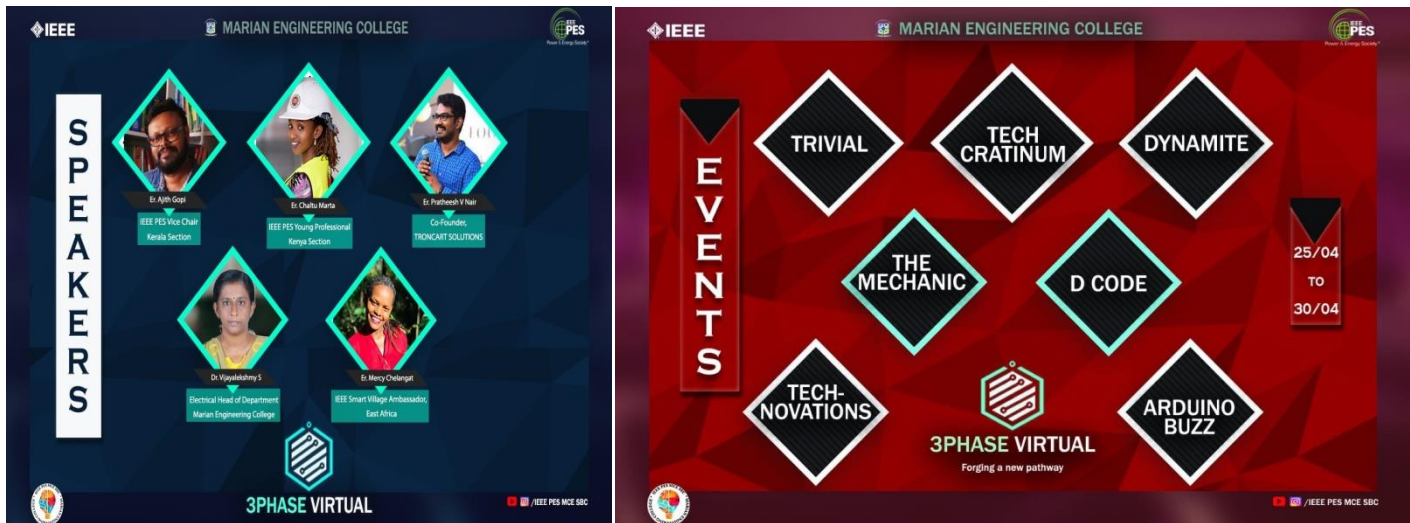
## 3 PHASE VIRTUAL



- The legacy of 3 PHASE dates back to its humble beginnings in 2016, as an event that sought to celebrate science and engineering. It was a result of aspiring mind's efforts to promote science and technology among the students and the workforce.
- With it's charisma and effective organisation 3 PHASE flourished from being a mere technical event to a main stream phenomena by 2019 through 3 PHASE REGENERATED. 3 PHASE, thus elevated itself as the official flagship technical fest of IEEE PES MCE SBC, thanks to the efforts of it's then organisers.
- The outstanding support that we had received throughout the years inspired us to formulate the third edition of this technical extraordinaire 3 PHASE VIRTUAL. Every year we try to embark a theme which resonates with the present scenario. This year's theme "**Forging a new pathway**", embodies the vision of its former organisers and our reckless efforts to materialise the event at this time of quarantine.
- Through its success 3 PHASE has broken stereotypes and reduced the bridge between technology and humans. 3 PHASE VIRTUAL was held between 25 April

2020 to 30 April 2020, 5 days with 12 events. Participants could register through the official site of IEEE PES MCE SBC (<http://ieeepesmce.org/>), a registration fee of Rs. 25 /- was charged as the registration fee which they could pay through the online payment portal. With a single registration, the participants could access all 12 events.

- On registration, participants received a question link via the registered e mail id which granted them access to all 12 events. The technical competitions were open from 26 April 2020 to 30 April 2020 where candidates could submit the final response before 30 April 2020. Each day a webinar with our distinguished speakers were hosted successfully by IEEE PES MCE SBC.



**3 PHASE VIRTUAL****DATE : 26 /04/2020 to 30/04/2020**

<b>SL NO :</b>	<b>EVENT NAME</b>	<b>EVENT DATE</b>	<b>EVENT DETAILS</b>
<b>WEBINARS</b>			
1.	Er. Chaltu Marta	26 /04/2020	Healing the world by Going Green
2.	Er. Pratheesh Nair	27/04/2020	IoT in real world applications
3.	Er. Mercy Chelangat	28 /04/2020	Energy as a tool for sustainable development
4.	Dr. Vijayalekshmy S	29 /04/2020	Partial Shading of solar arrays
5.	Er. Ajith Gopi	30 /04/2020	Wind energy development in Kerala
<b>TECHNICAL EVENTS</b>			
1.	TRIVIAL	26/4/2020 to 30/4/2020	<ul style="list-style-type: none"><li>• Participants are expected to crack technical riddles and brain teasers.</li><li>• Time based .</li></ul>
2.	TECH CRASTINUM	26/4/2020 to 30/4/2020	<ul style="list-style-type: none"><li>• Online poster making competition</li><li>• Topic – Technology in 2050's</li><li>• Submission of posters via online portal.</li></ul>
3.	DYNAMITE	26/4/2020 to 30/4/2020	<ul style="list-style-type: none"><li>• Images of latest and traditional technologies will be given.</li><li>• Participants are expected to</li></ul>

			search and answer it, timer based.
4.	THE MECHANIC	26/4/2020 to 30/4/2020	<ul style="list-style-type: none"> <li>• Case study will be provided to the participants.</li> <li>• They are expected to answer the questions which follow in the least possible time.</li> </ul>
5.	D CODE	26/4/2020 to 30/4/2020	<ul style="list-style-type: none"> <li>• Debugging of code given in C language.</li> <li>• Participants must identify the errors and present the correct code in the least possible time .</li> </ul>
6.	TECH-NOVATIONS	26/4/2020 to 30/4/2020	<ul style="list-style-type: none"> <li>• Participants will be given real life problem statements.</li> <li>• They are expected to produce a technically feasible solution.</li> </ul>
7.	ARDUINO BUZZ	26/4/2020 to 30/4/2020	<ul style="list-style-type: none"> <li>• The plot for a arduino sketch generated using serial plotter will be given.</li> <li>• The participants are expected to find the sketch.</li> </ul>

## WEBINAR 1 - Er.Chaltu Marta

- The first webinar hosted by IEEE PES MCE SBC as part of 3 PHASE VIRTUAL, occurred on 26 April 2020 at 7.00 PM IST. Our speaker for the day, Er. Chaltu Marta, is an IEEE PES Young Professional at Kenya Section. She is also a LinkedIn influencer and Google Digital Marketer.
- The webinar focused on **“How Covid-19 is affecting Digital Marketing”**. The



webinar session expressed detailed overview of the digital marketing trends, effects and the points to consider from COVID-19 regarding changing customer behaviours and individual industries. It also explained the means by which digital marketers can adapt with the impact that COVID - 19 has made on E - Commerce

platforms. She took initiative to share her views on how to create a strong brand and make them viable to the customers amidst the setbacks brought by COVID - 19 pandemic.

- The informative session attracted participant's interest and more than 35 candidates shared their views in the webinar session.

## WEBINAR 2 - Er. Pratheesh V Nair

- The webinar for 27 April 2020 on **"IoT in Real World Applications"** was handled by Er. Pratheesh V Nair. Mr. Pratheesh V Nair is a successful entrepreneur and founder of Tachlog Solutions Pvt Ltd .

- Tachlog Pvt Ltd has experienced professionals in Embedded Technology Application development. Their Embedded Technology expertise is involved in delivering cost effective products in Embedded System technology.
- He is also the co founder of Troncart. Troncart is one of the biggest E-commerce platforms in India, which ships its products all over India.



- They are also involved in providing technical support for all of its customers.



The session began at 7.00 PM on 27 April 2020, where Er. Pratheesh V Nair, gave an outstanding lecture on how IoT could be the next biggest milestone in the world of Technology.

- The participation from students, professionals and IEEE PES SBC MCE volunteers made the event stand out.

### **WEBINAR 3 - Er. Mercy Chelangat**

- The third webinar as part of 3 PHASE VIRTUAL organised by IEEE PES Student Branch Chapter of Marian Engineering College was held on 28 April 2020 at 7.00 PM IST through Microsoft Teams online platform.



- Our Speaker, Er. Mercy Chelangat is the Working Chair of Africa Funds Development. She is also the Women in Power Representative of East Africa Section .
- The webinar discussed the topic **“Energy as a tool for sustainable Development”**. Er. Mercy, explained that Energy is an important production factor and therefore should be managed in parallel with land, labour, and capital.

- She also explained that the adoption of energy efficient measures in the major economic sectors (household, industrial, and transport) will enhance profitability, and reduce the greenhouse gas emissions thereby promote sustainable development and improve corporate social responsibility.



- She also took efforts to explain the IEEE Smart Village Project , its implementation and measures in poverty alleviation especially in the East Africa Region .
- As a guest of honour , Mr. Ajay, Chairman of third IEEE PES Day celebration joined us.
- The webinar was an eye opener and an interesting experience for the attendees.

## WEBINAR 4 - Er. Vijayalekshmy S

- The fourth webinar hosted as part of 3 PHASE VIRTUAL organised by IEEE PES Student Branch Chapter of Marian Engineering College, was held on 29 April 2020, 7.00 PM IST. The webinar session handled by Er. Vijayalekshmy S, threw light on “**Partial Shading of Solar Arrays**”. Er. Vijayalekshmy S, is the PES Chapter Advisor of Marian Engineering College. She also adorns the post of Head of the Department, Electrical and Electronics Engineering, Marian Engineering College. She is also the recipient of the prestigious Corps. Electrical and Mechanical Engineers Prize, Institute of Engineers India.
- The 45 minutes webinar session focussed on analysis of PV array configurations under changing illumination conditions and an in detail review of the performance enhancement of various array configurations by shade dispersion. Webinar session discussed Zig Zag Rearrangement Scheme under both static shading and moving shadow conditions.



- More than 40 candidates participated in the webinar session. The session offered young minds the perfect opportunity to analyse the partial shading scenario.

## WEBINAR 5 - Er. Ajith Gopi

- The speaker for the fifth webinar of 3 PHASE VIRTUAL organised by IEEE PES MCS SBC was Er. Ajith Gopi . Mr. Ajith Gopi is an IEEE Senior Member and currently adorns the position as the Vice Chair of IEEE PES Kerala Chapter.



- He is the successful alumni of the esteemed Life Academy and holds a diploma in “wind Power Development ”.
- He is also a Research Scholar in Renewable Energy and Environmental Engineering at the prestigious UMP, Malaysia .He heads technical consultancy in solar PV projects at ANERT, which is the State Nodal Agency of the Ministry of New and Renewable Energy (MNRE), Govt. of India, under the Department of Power, Govt. of Kerala.
- He holds consultancy experience for more than 100 MV PV power plants including the 25 MV PV plant commissioned at Gujarat Solar Park .He conceptualised , designed and implemented Kerala’s first Remote Sensing Village Electrification Project which brought light to more than 1000 tribal homes in Kerala.
- He is also an active member of International Solar Energy Society and International Experts Network. The webinar session analysed the topic **"Wind Power Development in**



**Kerala"** its scopes and challenges in detail.

- The one hour session involved 15 minutes interactive session where the participants could express their queries to Mr. Ajith Gopi.
- More than 45 students across India participated. The event was special in its own way as it marked the official closing ceremony of the activities of 2019 EXECOM members.



## EVENT 1 TECHNOVATION

- TECHNOVATION was an online hackathon aimed in producing creative solutions to real life problems and scenarios. It challenges young technical minds to come up with innovative, renewable and cost effective solutions to the problem given.



- The registration to the event was done through the official site of IEEE PES student branch chapter of Marian engineering college (<http://ieeepesmc.org/>), more than 40 students from different regions actively participated in the competition. Participants could submit their responses between 26 April 2020 to 30 April 2020. Winners were selected based on the quality of the solution they proposed.

- Abhinand L R of Marian Engineering College secured the first prize in the competition .

## EVENT 2 TRIVIAL

- As part of 3 PHASE VIRTUAL, IEEE PES Student Branch Chapter of Marian Engineering College came up with an interesting quiz competition named TRIVIAL, breaking the boundaries of a conventional quiz section.

- TRIVIAL involved technical brain teasers and riddles to provide an interesting and fun filled experience to the attendees. With an overwhelming response, participants could experience the fun filled side of technology with TRIVIAL.



- Gokul K R of Marian Engineering College secured the first prize in the competition.

## EVENT 3 - TECHCRASTINUM

- TECHCRASTINUM was an online poster making competition that was conducted as part of 3 PHASE VIRTUAL organised by IEEE PES Student Branch Chapter of Marian Engineering College.



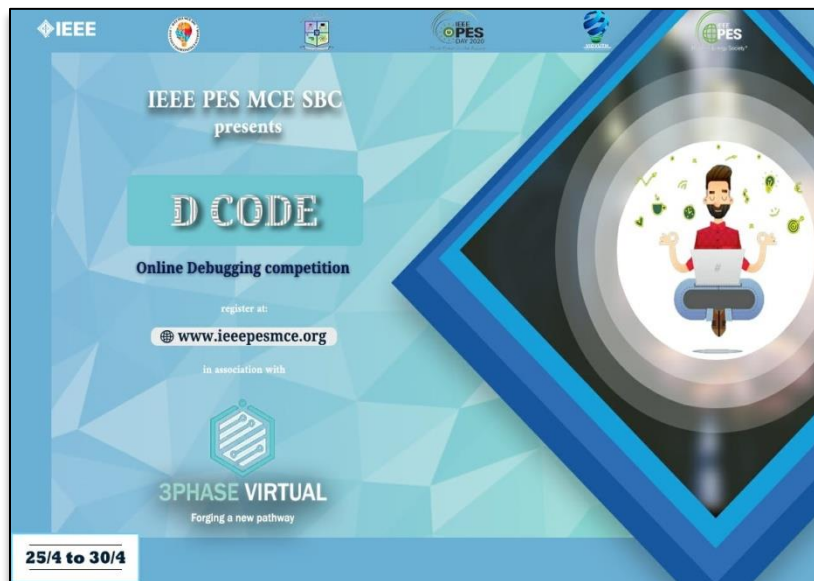
- Students could register through the official website of IEEE PES MCE SBC .Once after registration, the topic, for TECHCRASTINUM , **"Technology in 2050s"** was given in advance and the students were asked to upload the final work before 30th April 2020.

- More than 62 students participated in the event and the event was successfully completed.
- Fasna R S of Marian Engineering College secured the first prize in the competition .

## EVENT 4 D – CODE

- In order to increase the participation of computer science & engineering students in 3 PHASE VIRTUAL, we had organised an online coding competition called D Code. The students could register through our official website (<http://ieeepesmce.org/>) and the participants were given the error code and the output to a program.
- They were asked to correct the error code ,rectify the errors in the given code and provide the correct code for the same.





- More than 40 students participated in the event. It was a timer based competition and the participant who completed with the minimum time constraint was selected as the winner.

- The event was completed successfully
- Muhammad Rizwan N of Marian Engineering College secured the first prize in the competition .

## **EVENT 5 THE MECHANIC**

- As part of 3 PHASE VIRTUAL IEEE PES Student Branch Chapter of Marian Engineering College had organised an event named The Mechanic.
- The mechanic was formulated specially in order to increase the participation of Mechanical Engineering students. It was a comprehension based event and the students were given a mechanical engineering based passage and the questions were asked based on the passage.





- They were required to answer within the timing constraints. The participant who completed with the minimum time constraint was selected as the winner. The event was completed successfully.

- Lekshmi Raj of Marian Engineering College secured the first prize in the competition.

## **EVENT 6 DYNAMITE**

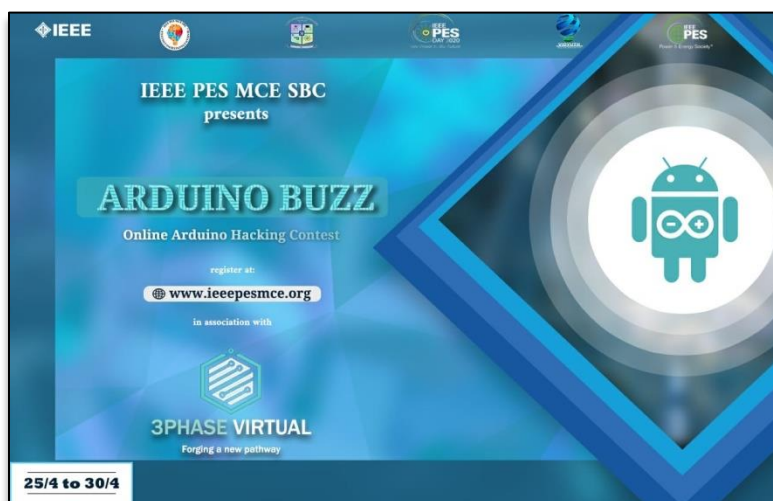
- IEEE PES student branch chapter of Marian engineering college hosted an interesting technical game section for the participants through DYNAMITE. Pictures based on scientific innovations and technologies were provided to the candidate.
- Candidates could assess them and seek help from web browsers to find answers to the questions associated with pictures. Registrations to the event accepted through the official site of IEEE PES MCE SBC.
- Those candidates who had completed the session in the minimum possible time were declared as winners.



- Amal A N of Marian Engineering College secured the first prize in the competition.

## EVENT 7 ARDUINO BUZZ

- In our quest to bring more spirit into the competition we thought of materialising ARDUINO BUZZ as part of 3 PHASE VIRTUAL.




- ARDUINO BUZZ, is an Arduino based coding competition which challenged technical minds to predict the most accurate code which would generate the plot displayed by the serial plotter. The plot was provided to the

attendees and they were asked to write the correct Arduino code.

- The event gained high popularity, participation and Nicky Biju of Marian Engineering College secured the first prize in the competition.

# PART C–GOALS AND PLANS

## C.1 ACHIEVEMENTS

- The IEEE PES MEC have been keen enough to coordinate technical and non technical competitions for students which has accelerated our popularity further more .
-  Within one year of its formation, the student membership count witnessed an approximate increase by 85% .
- Technical team of department paved a new path for evolving newer ideas for events .
- The warm welcome that we receive from students can be attributed to our volunteering and coordinating skills .
- A saga of technical and innovative events followed which paved a way for more than 1000 students to participate and explore the technical side of engineering academics .
- KSEB POWER QUIZ , being organised by IEEE PES MCE SBC marked a landmark which increased the popularity of the organisation .
- QURIO '19 paved way for new standards as large number of school students could participate in them . The events organised under IEEE PES SBC banner gained extreme popularity as it was able to provide much needed technical exposure to the students .
- IEEE PES MCE SBC , could incorporate the active participation and guidance from its Young Professional mentors.

- Young Professional member Er . Jacob Thomas Puthukeril , has been a constant source of support and help . He was the founder Chairman of IEEE PES MCE SBC . His immense efforts and contributions to TECHIZARD must be noted . He has also served as the webmaster of IEEE PES MCE SBC.
- During the course of URJJA - 2020 the IEEE PES SBC volunteers had the opportunity to interact with school students of both high school and higher secondary schools in Trivandrum district , thanks to the immense efforts of IEEE PES MCE SBC volunteers and advisor.
- URJJA -2020 was a bigger step towards our environmental and humanitarian goals .

## **C.2 GOALS AND FUTURE PLANS**

- IEEE PES MEC SBC plans on to take up new roles which would diversify our goal in terms of technical, humanitarian as well as social aspects of technology.
- The main goal of IEEE PES MEC SBC is to pave the way for new talents to arise and celebrate them.

## **HUMANITARIAN ASPECTS**

- This year's theme for IEEE PES MEC SB is to incorporate more humanitarian events in our work plan.
- We are planning to conduct visit to RCC as part of our humanitarian plan .

- By joining hands with Energy Management Centre we plan to indulge in activities like electrical maintenance works and distribute LED lamps in rural areas and hospitals .
- There is also an idea to organise vocational training programmes .

## TECHNICAL

- We plan to conduct more online events , workshops and industrial visits which would improve student participation and exhibit our volunteering skills .
- A National Conference on Innovations in Renewable Energy Technology ( NCIRET) which provides a platform for young talents to express their innovative ideas and research work in front of the panel .
- The third edition of our flagship event 3 PHASE , a two day technical fest is to be expected .

## EXECOM 2021

- Efficient members with excellent volunteering capabilities need to be selected in order to carry the legacy forward . They attribute to the success of our firm .
- The future leaders are to be selected by means of General Election and online votes.
- The team has setup the frame work for the organisation and it is up to the future leaders to hold it upright and and make additions to it with keen interest in the development of humanitarian aspects of technology.
- An Execom training programme is planned with graduate members and newly elected execom member

