2019-2020

IEEE STUDENT CHAPTER, FCRIT, Vashi

The Institute of Electrical and Electronics Engineers (IEEE) is a professional association with its corporate office in New York City and its Operations Center in Piscataway, New Jersey. It was formed in 1963 from the amalgamation of the American Institute of Electrical Engineers and the Institute of Radio Engineers. Today, the Organization's scope of interest has expanded into various related fields. Eleven members were selected as the Council members of the IEEE Student Chapter of FCRITfor the academic year 2019-20, mainly from the Third Year B. E. Students.

Council Members:

Chairperson: Ameya Satpute

Vice Chairperson: Mihir Gawand

Secretary:RuchitPatil

Treasurer: Aditya Tare

Director of Operations:ShubhamMohite

Director of Operations:Bhavesh Sharma

Editor: Jay Patil

Editor:NimishGharat

Membership Development Officer: Aniruddha Parab

Membership Development Officer: Pratik Pinto

Membership Development Officer:SiddhikaPatil

Branch Counselor:Bindu R

The following events were conducted under IEEE Student Chapter, FCRIT, Vashi for the academic year 2019-20.

1. Name of the Activity/Event: Seminar on the Topic Renewable Energy, Energy Storage and Electric Vehicles.

Activity/Event Venue & Date: 7th Jan 2020

Nature of Participant: Students of B.E VI Sem. (Electrical) and VI Sem. (Mech.)

Number of Participant: 91

Student Coordinator: Ameya Satpute (VI Sem. (Electrical))

Staff Coordinator: Bindu R.

Brief Summary of the Activity/Event (in maximum 500 words):

a. Objectives: To impart knowledge on the scope of higher studies on the topics 'Renewable Energy, Energy Storage and Electric Vehicles'.

Engineering from Multimedia University, Malaysia. Currently, he is a Professor at the school of Electrical, Computer and Telecommunications Engineering, and associated with Australian Power Quality and Reliability centre at the University of Wollongong, Australia. He has authored and co-authored 315 papers in international journals and conference proceedings. His research interest includes distributed generation, renewable energy, electrical vehicles, micro-grids, smart-grid, power system planning and emergency control. He is also a Senior member of IEEE Technical Committee paper review chair for industry automation and control committee associated with the IEEE Industry Application Society.

Dr. Muttaqi also shared his views on the rise in power demand due to the rise of electric vehicles in the market and some of the projects he is currently working on such as smart storage systems for renewable energy storage and industrial microgrid projects. The event ended by a thank you speech to Dr Muttaqi which was delivered by the chair person of IEEE council 2019-2020.

Activity / Event Photograph:



2. Name of the Activity/Event: State Level Technical Paper Presentation Competition

under 'TECHPULSE 2020'

Activity/Event Venue & Date: 17th Jan 2020

Nature of Participants: Students of B.E (All branches)

Number of Participants: 8 teams (2 students in each team)

Student Coordinator: Ameya Satpute (VI Sem. (Electrical))

Staff Coordinator: Bindu R

Brief Summary of the Activity/Event:

a. Objectives: To improve the technical paper writing and presentation skill.

b. Technical Description: The Technical Paper Presentation event hosted a total of 8 teams presenting papers from various backgrounds of engineering like Electrical, Computers, Information Technology and Mechanical. The panel of judges consisted of Mrs. Poornima Rao, Ms. M. Kiruthika, Dr. Savitha Upadhay and Mr. Mathewlal Thomas. The judges ensured a fair judgement for presentations of all the participant teams.

The event commenced at 10 am. Each team consisted of maximum of 2 team members. A great enthusiasm was seen in the participants. All the technical papers were very well prepared by the participants. The teams showcased their research and the immense efforts they had put in the papers. The participants were eager to gain knowledge from other technical papers as well. All the teams defended and answered the questions asked by the judges very well.

The winners of the competition were Naeem Patel and Shantanu Shinde with paper titled 'Automated Question Generation using Deep Learning'. The second prize was won by Shreya Pai and Vipul Borhade with paper titled 'Video Forensics' and the third prize was won by Suraj Mahanagade and Varad More with paper titled 'Line Detection using Image Processing'.

Activity / Event Photograph:



3. Name of the Activity/Event: PCB Designing Workshop Using Autodesk Eagle

Software

Activity/Event Venue & Date: 25th,26th Feb and 4th March 2020

Nature of Participants: Students of B.E (All branches of various semesters)

Number of Participants: 40

Student Coordinator: Ameya Satpute (VI Sem. (Electrical))

Staff Coordinator: Bindu R.

Brief Summary of the Activity/Event (in maximum 500 words):

a. Objectives : To give hand on experience in PCB designing using Eagle software and demonstrate PCB making.

b. Technical Description: A Worksop on 'PCB Designing using Eagle Software' was organised by the IEEE-CRIT Students Chapter on 25th, 26th Feb and 4th March 2020. The workshop took place for three days and was conducted by Prof. Jatin Desai of the Electronics and Telecommunications Department.

The workshop focused on basic interface of Eagle software, PCB schematic diagram on Eagle and PCB routing. Practical implementation of the PCB designed circuit on copper clad board was also taught. Students from first, second as well as third year from various branches attended the seminar. The seminar was quite informative for the students. The students were eager to learn PCB Designing as this knowledge comes in use during final year engineering projects.

Jatin Sir started with basics of Eagle software considering first year students who were mostly using the software for the first time. The technique for identifying the right component in eagle libraries was taught first. Students learned to find right components according to their parameters in datasheets from the right libraries in Eagle software. Sir started with simple voltage regulator circuit so that the students would find it easy to understand. Then, schematic preparing of the given circuit was taught. On the second day, information regarding PCB layout was given to students. The students themselves prepared the schematics and PCB layout on their laptops as laptops were recommended for every participant student. So, the students got hands on practical experience in PCB designing.

On the third day, Sir taught practical implementation of the PCB layout on a copper clad board. The process included printing of the layout on glossy paper, transferring the layout on the copper clad and finally the etching process. A very good response was obtained from the students. The students attended the workshop with great enthusiasm and the will to learn new things and gain knowledge.

Activity / Event Photograph:



4. Name of the Activity/Event: Lecture on 'Industrial Product Design Aspects'

Activity/Event Venue & Date: 11th March 2020

Nature of Participants: Students of B.E (All branches of various semesters)

Number of Participants: 49

Student Coordinator: Ameya Satpute (VI Sem. (Electrical))

Staff Coordinator: Bindu R.

Brief Summary of the Activity/Event (in maximum 500 words):

- a. Objectives : To give an overview of the aspects to be considered in Industrial product design
- b. Technical Description : A seminar was conducted by the IEEE-CRIT council on 11th of March by Dr Sushil Thale. The topic of the lecture was 'Industrial Product Design Aspects'. Dr. Thale has completed his Ph.D. from IIT Bombay with the specialisation on Power Electronics and Power Systems. He has also authored and co-authored over 40 research papers which were published in various journals and conferences. He is currently the Dean (R&D) and professor at the electrical department of our Fr. C. Rodrigues Institute of Technology.

Dr Thale spoke about the various aspects a student needs to understand while doing a particular project and while designing and development of an electrical circuit. He talked about the thought process while deciding a project and the way it should be implemented to make the project stand out at an industry level. He spoke about the industry norms to be followed while development of any new product. He talked about how to decide whether to take up an industrial project or not from the certain industry. He spoke about how to find out what needs to be done and how, the requirements of the project as well as component selection and material procurement. He spoke about how important it was for the students to understand the basics of resistors, inductors and capacitors. This knowledge of component selection would help them to design almost any circuit.

The seminar was allowed for all the branches of all years. Majority of the students were from the third year. There was a good participation from the first and second year students as well.

Activity / Event Photograph:



5. Name of the Activity/Event: Webinar on 'Advanced Autonomous transportation electrification solutions for a smart city evolution with social implications' by Dr.Sheldon Williamson

Activity/Event Venue & Date: 19th May 2020 on Google meets

Nature of Participants: Students of B.E Electrical of various college / Staff of

FCRIT, Vashi

Number of Participants: 122 Students + 9 Faculty

Student Coordinator: IEEE Council

Staff Coordinator: Mrs. Bindu R

Brief Summary of the Activity/Event:

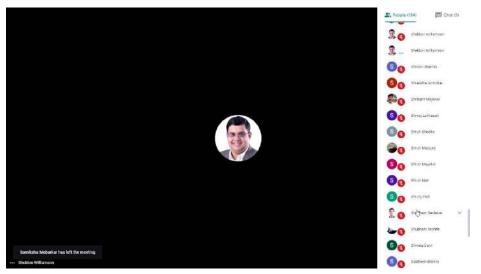
a. Objectives: To give an idea about the post corona scenario in transportation and gain knowledge of the upcoming EV industry.

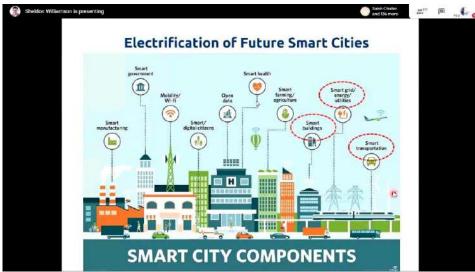
b. Technical Description: The Webinar stated off with topic of transportation electrification in the world scenario after Corona pandemic. The speaker talked about how mobility can be started up again using micromobility options. Micromobility modes give travellers a private vehicle alternative along with reducing traffic issues. DRONET technology has come up where multiple drones are used together in which the drones are connected to each other with cables. Wireless charging options using inductive/capacitive power transfer was discussed. The speaker talked about the topologies used for inductive and capacitive power transfer. Hybrid IPT-CPT schematics were also discussed. Later, PV/Grid/EV Integrated Charging Infrastructure methods were explained. Various types of charging techniques were discussed if electric vehicles were to be operated as public transport.

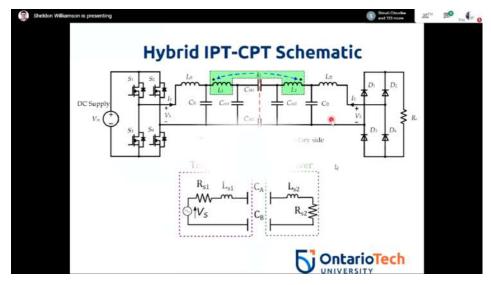
One of the prominent topic of the lecture was the charger installed beneath the road at bus stops so that whenever buses halt at the stop they will get charged for that time of period. Induction issues associated with that technique were also discussed.

- c. **Outcomes:** The participants got more exposed to the field of transportation electrification through this webinar. They got to learn about various researches going on in this field of transportation electrification.
- d. Summary of Feedback: A feedback from all the participants was taken after the webinar. The webinar was highly useful for the participants. The participants liked the webinar and presentation of the topic and gained immense knowledge about those technologies.
- **e. Action to be Taken based on Feedback:** From the response of the participation in this webinar, more such informative webinars can be conducted using better online platforms for making the best use of the lockdown period.

Activity / Event Photograph:







IEI Student's Chapter

The Institution of Engineers (India) [IEI]is a statutory body to promote and advance the engineering and technology, established in 1920 and incorporated by Royal Charter in 1935. It is the largest multidisciplinary professional body of engineers encompassing 15 (fifteen) engineering disciplines with a membership of more than 820 thousand, and serving the nation for more than 9 decades. All the students of electrical department are members of the IEI students chapter. All the students of electrical department are members of the IEI students chapter. From the second year students four members were selected as the council members for the academic year 2019-20. The duration of the council is for one year.

COUNCIL MEMBERS:

AyushMisra	Raheel Qureshi	MuskanSaxena	Shruti Nair
Chairperson	Secretary	Editor	Editor

Advisor: Mrs. DivyaSajeesh

The following events were conducted under IEI for the academic year 2019-20

Mini Project competition

- ❖ An intradepartmental mini project competition was held on 3/08/2019 for 5th semester students
- ❖ 18 groups of 4 members each participated in the competition.
- ❖ The groups were judged by Mr. RamchandraBhosale, IIT, Bombay
- ❖ A cash prize of 3000/- for first winners, 2000/- for the second winners and 1000/- for third winners were awarded along with the certificates.

List of Winners are: -

Sr. No.	Roll. No.	Name of Students	Title of Project	Remark
	401738	PADIR RUSHIKESH A.	Two Wheeled self-	
1.	401739	PANIGRAHY ANJAN A.		1 st Prize
1.	401742	PATIL HEMANT R.	balancing Robot Using Arduino	1 Plize
	401745	PATIL RUCHIT	Osnig Ardunio	
	401767	KHAPNE SUKANYA		
	401707	RAMESH		
2	401768	LATHIA NISHIL PRAFUL	Office Light	2 nd Prize
2	401773	PARAB KRUNAL ARUN	Sensor	2 Flize
	401775	PHADALE AMRUTA		
	401773	DILIP		
	401736	NARKAR DEEPESH D.		
3	401749	SASE MANDAR N.	Smart Garden	2 nd Prize
	401752	SHASTRI JITESH Y.		

	401753	SHIRUDE AJINKYA G.		
	401706	CHIDRAWAR VAIBHAV		
	401764	BANKAR PRASAD		
	401704	ROHIDAS	Transmission line	
4	401770	NALAVADE	fault detection	3 rd Prize
	401770	AMITKUMAR BALASO	using Arduino	
	401776	POTDAR MAHESH		
	401770	DEVENDRA		
	401702	BANSODE SIDDHI S.		
5	401723	KALVA RAHUL S.	Digital	3 rd Prize
3	401726	MANDAL SANMITRA	Taxi Fare Meter	3 FIIZE
	401732	MISHRA SWAPNIKA	Using Arduino	

Expert Lecture:

The students of FCRIT were guided by experts on various topics. Around 9 expert lectures were conducted by the electrical department for students of semester VII, V and III by experts from different fields in SH2019. The lectures were on various topics related to the subjects that the students study as well as on general topics. The lectures conducted are as follows:

 \triangleright

Sr.	Date of	Speaker	Title
No	conduction		
1	25/9/2019	Mrs. Shraddha AniketSawant Assistant Professor AIKTC, Plot No 2, 3, Sector 16, New Panvel, Navi Mumbai - 410206	Vector Control of Induction Motor
2	13/9/2019	Mr. PravinAmbhore, Director Electrocust, Kharghar, Navi Mumbai	Motivational Talk
3	25/9/2019	Mrs. ShilpaVivek Pillai Deputy Executive Engineer 220/33-22kV substation, MSETCL, Nerul, Navi Mumbai	Substation Equipment and Its Maintenance
4	13/7/2019	Mr. TareshVarshney DGM L&T	Motivational Talk
5	30/9/2019	Mr. Gokul Prakash CEO, Lamberton Power Private Limited, Mumbai	Power Transformer Erection, Testing and Commission
6	5/10/2019	Ms. MayuriBhirud Graduate Trainee Engineer Worley Airoli	Selection of Projects for Final Year
7	12/9/2019	Mr. Ram Bhosale Research Scholar, EE, IIT Bombay Mumbai	Selection of Semiconductor Devices based on application
8	5/10/2019	Mr. SaurabhKillekar Graduate Engineer Trainee Sterling and Wilson Pvt. Ltd. Mumbai 400043	Co-Generation
9	11/9/2019	Ms. ShambhaviSant Assistant System Engineer Tata Consultancy Services Thane, Mumbai	JAVA AWT

> IEI Quiz Competition FH2020

Activity/Event Venue & Date: 21st and 23rd January 2020

Nature of Participants : Students of SEM 3, 5 and 7 Electrical

Number of Participants : 16

Brief Summary of the Activity/Event (in maximum 500 words):

a. Objectives : To test students technical and general knowledge.

b. Technical Description : The First round of QUIZ was a pen and paper test of 30 Marks. After first evaluation; 12 students were shortlisted and 4 teams were made for final round. The final round was conducted on 23rd January 2020. It was question and answer round and questions were based on General Knowledge, Politics, Science, Current Affairs etc. After final round; one winner and one runner up team was announced.

c. Outcomes : Improvement in knowledge and thoughts of students and timing of giving answers.

Activity / Event Photograph:



EESA

EESA (Electrical Engineering Student Association) is an organisation that aims at all round development of Electrical Engineering students technically and culturally. EESA conducted workshop and events under fest named Hysteresis 2K19, a techno-cultural fest for electrical students only.

COUNCIL MEMBERS: -

Sr. No.	Post	Name
1	Chairperson	Rahul Kalva
2	Secretary	Vivek Kushwaha
3	Asstt. Secretary	Swapnali Bhosale
4	Treasurer	Manasi Bansode
5	Magazine Editors	Sanmitra Mandal, Amol Pednekar
6	Sponsorship Head	Vaishakh Menon
7	Programme	Anvesh R.,Siddhi B.,Anjan Panigrahy, Hemant
	Co-ordinators	P., Nishil L., Tanay Mistry, Manasi L., Shruti
		G., Tejas Joshi,

Activities conducted under EESA during SH19

> Seminar : Topic "Education abroad-MS v/s MBA"

Date - 21/08/2019

No. of participants: (73) Sem 5 Electrical

No. of Hours: 01

Seminar was taken by representatives from Endeavour.

Tree Plantation:

Date - 24/08/2019

No. of participants: (21)

No. of Hours: one day

Activity arranged by - Dr. Ravi S. Kumar (CEO, NGO "Freedom for you

Foundation")



Endeavor seminar



Tree plantation

Activities conducted under EESA during FH2020

> Activity/Event Venue & Date : AURORA 2k20, (Classroom 209 and project lab)

Nature of Participants : Students of 2nd and 3rd year Electrical Engineering

Number of Participants : 86

Student Coordinator : EESA council members

Staff Coordinator : Harshada C.B.

Brief Summary of the Activity/Event (in maximum 500 words):

- a. Objectives
 - Ensure maximum participation of students in group activities.
 - Prepare students for aptitude tests by conducting technical quizzes.
 - Enhance technical knowledge.

b. Technical Description :

Competitions like Technical quiz were conducted to test aptitude of students for competitive exams and preparing for tests at the time of placements. Students in groups of two participated. Activities like treasure hunt and Continue the circuit were conducted.

c. Outcomes

- 1. Active and immense participation by students
- 2. Platform for students to showcase their organization skills

Activity / Event Photograph:



Continue the Circuit



Technical Quiz



Webinar

Activity/Event Venue & Date: Webinar on the topic "Switchgear, Its Industrial

Applications"

Nature of Participants : Students of 2nd, 3rd and 4th year Electrical Engineering

Number of Participants : 68

Student Coordinator : EESA council members

Staff Coordinator : Harshada C.B.

Date : June 11, 2020 (11 to 1 pm)

Brief Summary of the Activity/Event (in maximum 500 words):

A. Objectives

- Practical insights to topics studied in the Curriculum
- Keep students occupied positively under Covid 19 conditions.

B. Technical Description

The speaker Mr. Shivanand D.V., CEO, Universal Power Controls, gave more in depth knowledge about Switchgear components, their ratings, types, applications in industries, common types of faults like short circuit, single phasing, line to ground etc., Low voltage Switchgear components, Circuit breakers are some of the topics that were covered during the session.

C. Outcomes

- 1. Active and immense participation by students through question and answer session.
- 2. Platform for students to showcase their organization skills

1. Activity / Event Photograph:





Webinar on Switchgear, Its Industry Applications presented by Mr. Shivanand ,CEO, Universal Power Controls

2018 - 19

IEEE STUDENT CHAPTER, FCRIT, Vashi

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corporate office in New York City and its operations center in Piscataway, New Jersey. It was

formed in 1963 from the amalgamation of the American Institute of Electrical Engineers and the

Institute of Radio Engineers. Today, the organization's scope of interest has expanded into various

related fields. As of 2018, it is the world's largest association of technical professionals with more

than 423,000 members in over 160 countries around the world. Its objectives are the educational and

technical advancement of electrical, electronics and telecommunications engineering, computer

engineering and allied disciplines. From the third year B.E. students, ten members were selected as

the council members of the IEEE Student Chapter, FCRIT for the academic year 2018-19. The

duration of the council was for one year.

Council Members:

• Saurabh Shelke (Chairperson)

• Dhrishya Gigi (Vice Chairperson)

• Kunal Mahadik (Secretary)

• Manthan Mahajan (Treasurer)

• Pratik Raut (Director of Operations)

• Saurabh Pardhe (Editor)

• Aneeta Ann John (Editor)

• Manikandan M (Membership Development Officer)

• Vaishnavi Choudhari (Membership Development Officer)

• Akshata Chikhale (Membership Development Officer)

Branch Counselor: Mrs. Bindu R

The following events were conducted under IEEE Student Chapter, FCRIT, Vashi for the academic year 2018-19.

Events	Contests	Magazine
1. Seminar on "How to write and	1. Techpulse: (State	
present a Technical Paper"	level)	
2. Cyber Security Workshop	Paper presentation	Magazine
3. Eagle Workshop	contest	'LiveWire 2019'
4. Lecture by Dr. Satyanarayana B		

A. How to Write a Technical Paper

IEEE-CRIT had organized a short talk on "How to write and present a Technical Paper" on 17th

January 2019 at 4:30 pm. The speaker for this session was Dr. Bindu. S. (HOD, Electrical Department, FCRIT). She has pursued her PhD from VJTI and in her career span she has written and published several papers. There were 60 participants from each department (Electrical, Electronics and Telecommunication, Information technology, Mechanical, and Computer). The session included discussions on the basic requirement for writing a technical paper, the guidelines, literature survey, choosing the title, formatting, plagiarism and presentation. The session involved active participation from students of various branches.





B. Cyber Security Workshop

IEEE-CRIT had organized a cyber security workshop on 25th February 2018 that gave a training on the basics of cyber security. It was a 2 hour workshop conducted by 4th year B.E. students. There were 41 participants divided into groups with 2-3 members each. The students who took part in the workshop were from the 1st, 2nd and 3rd year. The workshop started with an introduction to cyber security, as to how to protect computer from attacks. Firewall development, exploitation of a website was also taught to the students using kali linux and metasploit framework.





C. Eagle Workshop

IEEE-CRIT had organized an App Development workshop on 8th March 2019 which gives hands on experience. It was conducted by 4rd year B.E. students. There were 35 participants from 1st, 2nd and 3rd year. The workshop started with the introduction to Eagle, how to design a PCB, connect schematic diagrams, component placement, PCB routing, and how to access libraries of PCB. Students were also given a live demonstration on how to design a PCB.

Guides: Mohit Patil, Ajinkya Patil.





D. Techpulse

IEEE-CRIT had organized a State Level Competition named "TECHPULSE" on 2nd of March 2019.

The Technical Paper Presentation event hosted a total of 7 teams from varied engineering backgrounds, with an emphasis on the branches of Computer, Electronics, Electrical and Mechanical Engineering. The panel of judges including Dr. Mini Rajeev, Ms. Savitha S. Upadhya and Ms. M. Kiruthika. The diverse panel of judges ensured a fair, unbiased representation of the various branches of engineering.

The event commenced at 10 a.m. after the felicitation of the judges, with the participating teams eager to present their ideas and innovations. It was indeed a sea of brilliance, as team after another came forward with original prototypes, research papers and advancements. Fielding question after question by the judges, the participants displayed their undying thirst for knowledge, whilst showcasing their immense interest and the astonishing amount of effort and research put into each of their individual presentations.

The first prize was given to the paper titled "Deep Learning based Automatic Image Caption Generation" by Vaidehi Muley and Varsha Kesavan.

The second prize was given to the paper titled "Top Down Approach in Design and Simulation of Grid Integrated Solar Rooftop PV system" by Mayuri Sunil Bhirud and Yash Ajgaonkar.

1st Prize:



2nd Prize:



IEEE-CRIT Student Chapter (2018-19) released the magazine "LIVEWIRE 2019" on 20 July, 2019.



IEI STUDENTS' CHAPTER

The Institution of Engineers (India) [IEI]is a statutory body to promote and advance the engineering and technology, established in 1920 and incorporated by Royal Charter in 1935. It is the largest multi-disciplinary professional body of engineers encompassing 15 (fifteen) engineering disciplines with a membership of more than 820 thousand, and serving the nation for more than 9 decades. All the students of electrical department are members of the IEI students chapter. From the second year students four members were selected as the council members for the academic year 2018-19. The duration of the council is for one year.

COUNCIL MEMBERS:





Advisor: Mrs. Divya Sajeesh

The following events were conducted under IEI for the academic year 2018-19

IEI EVENTS 2018-19

Mini Project Competition

An intra departmental Mini Project competition was held on 21st July 2018 for 5th semester students. In this competition 18 groups of 4 members each participated and these groups were judged acutely by Mr. Mahesh Kumbhar, Power Electronics Engineer at Select Control Pvt Ltd, Mahape. After critical judgement top three winners were selected.

Mini project winners

First prize was awarded to group with project title "Electronic Voting Machine" with a cash prize of 2000/-. Second place was awarded to group with project title as "Solar Tracker using Arduino" along with a cash prize of 1500/-. Finally, third place was awarded to group with project title as "Magnetic locking power amplifying System" and a cash prize of 1000/-.



Expert Lecture:

The students of FCRIT were guided by experts on various topics. Around 26 expert lectures were conducted by the electrical department for students of semester 8, 6 and 4 by experts from different fields. The lectures were on various topics related to the subjects that the students study as well as on general topics. The lectures conducted are as follows:

	Expert Lecture Details SH2018				
Sr. No	Date of conduction	Speaker	Title		
1	06/07/2018	Mr. Mr. Aditya Paranjpe Head IoT, Kloudq Technologies Limited, Pune	Motivational Talk		
2	21/07/2018	Ms.Trisha Jaiswal, Engineer,Thyssenkrup, Mumbai	Energy Efficient Transformers and Induction Motors		
3	29/10/2018	Mr.Shashank desai, Junior Engineer.Insolergy Technologies Pvt.Ltd, Mumbai	Renewable Energy and Enegy Storage Systems		
4	29/09/2018	Ms.Renuka Pai,Executive Engineer, Siemens Ltd	Power System Operation and Control		
5	29/09/2018	Mr.Sidharth Iyer,Asst.Manager, L&T SwitchGear Division, Powai	Basics of Switch Gear		
6	29/09/2018	Ramya Bhat, Design Engineer- Electrical, Petrofac Engineering	Motivational talk		
7	01/09/2018	Utkarsh Singh, L&T Infotech, Pune	Java AWT		
8	20/10/2018	Nikhil Sanjay Vardekar, Klodq Technolgies Ltd, Senior Engineer, Khadki, Pune	Overview of starter Panel Design		
9	29/09/2018	Ms.Palak Sharma, Executive Engineer, L&T Hydrocarbon Engineering, Powai	Project Management and Campus to Corporate		
10	19/10/2018	Ms.Sayali Ishvar Harer, assistant Manager, Godrej and Boyce Mfg.Co.Ltd, Vikroli, Mumbai	Motivational talk		
11	20/10/2018	Ms.Rakshita Dhar, Jr.Research Fellow, Centre of Excellence- CNDS lab	Energy Management in Hybrid Electric Vehicles		
12	28/09/2018	Shakila Nisar, Alumni ,FCRIT	Importance of Internship		

	Expert Lec	ture Details FH2019	
Sr. No.	Date of conduction	Speaker	Title
1	11/01/2019	Mr.Kiran Griffiths Research & Development Tools Frauscher Sensortechnic BMBH Austria	Electric and Hybrid Electric Vehicle Technology
2	17/01/2019	Mr.Kiran Griffiths Research & Development Tools Frauscher Sensortechnic BMBH Austria	Microgrid
3	19/01/2019	Ms.Bhagyasree Senior S/W Tester ATOS India Pvt. Ltd Airoli	Campus to corporate
4	21/01/2019	Mr.Pritul Thakkar Sales Head, Training Esskay TTC Industrial Area, Technocity, Mahape Ms.Minal Jadhav Senior Executive Automation & Instrumentation Trainings Siemens- Training (SITRAIN INDIA), Thane	Importance of Industrial Training
5	24/01/2019	Ms.Pooja Jadhav Sales and Service Coordinator Pradeep Sales and Service Pvt.Ltd Sakinaka Mumbai	Power Transformer Erection, Testing and Commission
6	7/02/2019	Mr.Mahesh Kumbhar ,Power Electronics Engineer R&D,Selec Controls Pvt.Ltd, Mumba	Solar Grid Tied Inverter for Residential Applications
7	12/02/2019	Mr.Nitin Gawde Lead Engineer, Tata Power Co.Ltd, Mumbai	Basic Knowledge of Receiving station equipments

8 11/03/2019 Mr.Ketan.Jore Industrial	
	Applications
	and Digital
Trainee, Primetals Integrated	d Circuits
Technologies India	
Pvt.Ltd, Mumbai	
9 12/03/2019 Mrs. Shilpa Pillai Power Sys	stem
Deputy Executive Transmiss	sion Lines and
Engineer(trans) substation	n Earthing
MSETCL, Nerul	
10 16/03/2019 Ms.Komal Gaikwad HV and LV	/ Cable Sizing
Electrical Engineer using IECS	Standards
Siemens, Airoli, Navi	
Mumbai	
11 16/03/2019 Sujata Patil Motivation	nal Talk
Senior Engineer –Traction	
R&D	
Hind Rectifier Ltd	
Lake Road, Bhandup (W)	
Mumbai-400078	
12 16/03/2019 Sujata Patil Fundamer	ntals of
Senior Engineer – Traction Electrical I	Drives
R&D	
Hind Rectifier Ltd	
Lake Road, Bhandup (W)	
Mumbai-400078	
13 22/03/2019 Ms.Priti Gosavi Role of Ele	ectrical
Senior Asst. Engineer Engineers	in EPC Sector
Toyo Engineering	
Kanjurmarg, Mumbai	
14 29/03/2019 Bhagya Low Volta	ge Circuit
Senior Engineer Breaker	
Tata power, Mumbai	





Quiz Competition

An intra departmental Quiz Competition was conducted on11th March 2019. As to give equal opportunity to all the students mixed teams were made from 2nd, 4th and 8th semester students.



About 40 students participated in this quiz but as only 4 teams, each consisting of four members, were to be allowed in the final, an elimination MCQ round was conducted on 15th February 2019 in GK, current affairs and technical knowledge. The final quiz was conducted in two rounds:

- Written MCQ
- Oral Quiz (Bounce Pounce Method)

Quiz competition winners

Hence after rigorous testing top 3 teams were selected. The team in the first place received a cash prize of 2000/- and, team in second place received a cash prize of 1000/-. Certificates was awarded to all three teams



REPORT OF EESA (2018-19)

EESA (Electrical Engineering Student Association) is an organisation that aims at all round development of Electrical Engineering students technically and culturally. EESA conducted workshop and events under fest named Hysteresis 2K19, a techno-cultural fest for electrical students only.

COUNCIL MEMBERS: -

Sr. No.	Post	Name	
1	Chairperson	Sayantan Das	
2	Secretary Druvesh Patel		
3	Asstt. Secretary	Sumit Mhatre	
4	Treasurer	Utkarsh Mishra	
5	Magazine Editors	Atharva B., Jenny G., Prajakta M.	
6	Sponsorship Head	Saud S. , Samuel Wood	
7	Programme Co-ordinators	Nauman S. , Shivam M., Athang L., Suyash M. , Yashashri S., Rasika , Kirti M. Shrusti N. , Tejas D.	

CONVENOR: Mrs. Harshada C. Bhosale (Asstt. Prof., Electrical Department)

Activities conducted under EESA during July 2018 to March 2019

Seminar: Topic "Introduction to Python and Career Opportunities"

Date - 18/01/2019

No. of participants: (97) Sem 4 and 6 Electrical

No. of Hours: 01

Two separate sessions were conducted by Prof Amroz (Computer Engineering dept., FrCRIT, Vashi) and Mr. Rahul Shinde AITSPL, Vashi. The aim was to increase Electrical student's awareness about learning Python and what are the career opportunities for them after learning Python.

> Safety Workshop:

Date - 26/01/2019 (Republic day)

No. of participants: (49)

No. of Hours: 06

Course conducted by – Dr. Ravi S. Kumar (Freedom for you Foundation)

Safety Workshop was conducted by Dr. Ravi S. Kumar of "Freedom for you Foundation". The workshop included demonstration and hands on practice of different aspects of Safety for Human beings.

- Emergency First Aid
- Effective CPR
- Basic Firefighting Techniques









BASIC FIRST AID FOR EMERGENCIES LIKE ROAD ACCIDENTS/ CARDIAC ARREST





FIRE FIGHTING EXERCISE



Seminar: Topic "Career Opportunities after BE and Preparation for GATE exams"

Date - 08/02/2019

Target Audience: Sem 4 Electrical No. of students attended: (70)

No. of Hours: 01

One-hour session was taken by GATE Academy of Vinayak classes on how to prepare for GATE exams and how appearing for GATE can help them in their career.

Pvthon Workshop:

Date - 21/02/2019, 06/03/19 and 07/03/19

Time: 4.30 to 6.30 pm

Target Audience: Sem 4 Electrical No. of students attended: (19)

No. of Hours: 06

A hands on practice of Python was organised for sem 4 Electrical students. Practice worksheets for self-practice were also given. The workshop was arranged on three different days after college hours 4.30 pm.



➤ Technical Events under HYSTERESIS – 2k19

Many technical events under EESA (2018-19) were organised for Electrical students of sem 4 and 6 to test their technical skills and capabilities.

Date: 16/03/2019

Sr. No.	Time	Event	Total No. of Participants		
				1 st prize	2 nd prize
1	2.30 – 3.30 pm	Technical Quiz Competition	13 groups 2 per group	Himanshu C. (Sem 6) Chinmay G. (Sem 8)	Anurag P. (Sem 6) Manthan M. (Sem 6)
2	2.30 – 3.30 pm	Tricky Circuits	10 groups 2 per group	Dhrishya Gigi (Sem 6) Aneeta Ann (Sem 6)	-
3	4.30 – 5.30 pm	Treasure Hunt	09 groups 4 per group	Dhrishya Gigi (Sem 6) Aneeta Ann (Sem 6) Manikandan P. (Sem 6) Varun Patil (Sem 6)	Aditya Tare (Sem 4) Anvesh Rane(Sem 4) Hemant P. (Sem 4) Amol P. (Sem 4)





Technical Quiz Competition

Tricky circuits

Winners of Treasure Hunt



> EESA magazine 2018-19 "Luminosity" was released at the time of Vidyut SH19.



2017 - 2018

IEEE STUDENT CHAPTER, FCRIT, Vashi

The Institute of Electrical and Electronics Engineers (IEEE) is a professional association with its corporate office in New York City and its operations center in Piscataway, New Jersey. It was formed in 1963 from the amalgamation of the American Institute of Electrical Engineers and the Institute of Radio Engineers. Today, the organization's scope of interest has expanded into various related fields. As of 2018, it is the world's largest association of technical professionals with more than 423,000 members in over 160 countries around the world. Its objectives are the educational and technical advancement of electrical, electronics and telecommunications engineering, computer engineering and allied disciplines. From the third year B.E. students, ten members were selected as the council members of the IEEE Student Chapter, FCRIT for the academic year 2017-18. The duration of the council was for one year.

Council Members:

- Manasi Bhavsar (Chairperson)
- Kunal Kulkarni (Vice Chairperson)
- Anindita Sharma (Secretary)
- Sarah George (Treasurer)
- Anish Kanse (Director of Operations)
- Merlin Vincent (Director of Operations)
- Joy George (Editor)
- Joyrin Fernandes (Editor)
- Saurabh Killekar (Membership Development Officer)
- Ashutosh Kavitkar (Membership Development Officer)

Branch Counselor: Mrs. Bindu R

The following events were conducted under IEEE Student Chapter, FCRIT, Vashi for the academic year 2017-18.

Events	Contests	Magazine
1. Introductory Session 2. Seminar on "How to write and present a Technical Paper" 3. Robotics Workshop 4. Workshop on Python 5. Workshop on 'App development'	 Robosoccer Competition Techpulse: (State level) TechZoah: Paper presentation contest TechnoVention: Project competition 	Magazine 'LiveWire 2018'

A. Introductory Session

This session was organized for all the IEEE members to inspire a global community to innovate for a better tomorrow. A short talk was held by Racheal Dias - Public Relations Coordinator and IEEE Xtreme Ambassador 2017. She gave us a briefing about IEEE and its functioning. She provided an insight into IEEE's core purpose which was to foster technological innovation and excellence for the benefit of humanity. IEEE Student members from different branches and semesters were part of this session and interacted with the council regarding their expectations on the activities.

B. How to Write a Technical Paper

IEEE-CRIT had organized a short talk on "How to write and present a Technical Paper" on 9th January 2018 at 4:30 pm. The speaker for this session was Dr. Bindu. S. (HOD, Electrical Department, FCRIT). She has pursued her PhD from VJTI and in her career span she has written and published several papers. There were 97 participants from each department (Electrical, Electronics and Telecommunication, Information technology, Mechanical, and Computer). The session included discussions on the basic requirement for writing a technical paper, the guidelines, literature survey, choosing the title, formatting, plagiarism and presentation. The session involved active participation from students of various branches.





C. Level 1 Robotics

IEEE-CRIT had conducted a level-1 robotics workshop on 18th and 19th January,2018. There were 72 students divided into 18 groups with each group consisting of 4 members. The participants mainly comprised of students from the 1st, 2nd and 3rd years. On the first day the students were taught the connections involved in making a level 1 Bot and were made to implement it. Each group was provided with all the necessary components. Students were taught basics of robotics, its connections and working, working of a DPDT switch and the control of a bot. There was a competition held for the groups on the 2nd day titled 'Robo Soccer'. The two winning teams from 2nd and 3rd year were given cash prizes.





D. Python Coding Workshop

IEEE-CRIT had organized a Python workshop on 21^{st} February 2018 that gave a training on the basics of Python programming language. It was a 3-hour workshop conducted by 3^{rd} year B.E. students. There were 48 participants divided into 24 groups with 2 members each. The students who took part in the workshop were from the 1^{st} and 2^{nd} year. The workshop started with an introduction to Python

language, which is a widely used high-level, general-purpose, interpreted, dynamic programming language followed by some examples covering topics like Basic syntax, Looping, Additional functions, Information on few applications and a Game on library pygame

Guides: Jariel Joash Gojar, Joel Miranda, Robin Eliezer Andrew, Dylan D'Souza





E. App Development Workshop

IEEE-CRIT had organized an App Development workshop on 7th March 2018 which gives hands on experience. It was conducted by 3rd year B.E. students. There were 36 participants from 1st, 2nd and 3rd year. The workshop started with the introduction to block coding, real time usage of App followed by some examples covering topics like Basic syntax, Looping, Additional functions and a few applications useful in real time

Guides: Vaibhavi Patil, Nikhil Shah, Rahul Fatnani, Mohit Patil

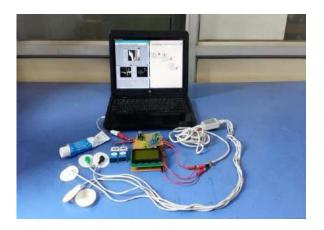




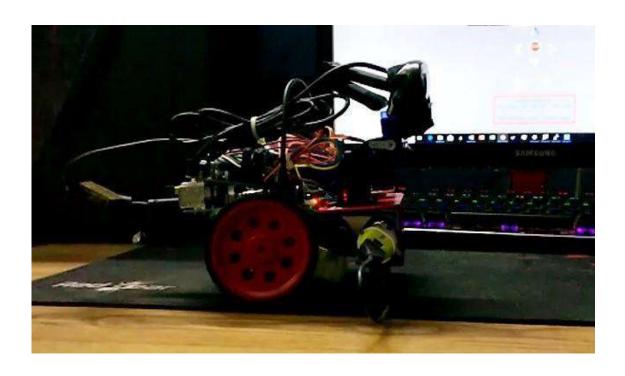
F. TECHPULSE

IEEE-CRIT had organized a two-day State Level Competition named "TECHPULSE" on $23^{\rm rd}$ and $24^{\rm th}$ of March 2018.

Day 1: TECHNOVENTION conducted on 23rd March 2018 provides a great opportunity for the young minds to represent their projects. Mr. Nawaz Hussain, who has completed his Master's from IIT Bombay and was pursuing his PhD from IIT Bombay, was invited as the judge for the Project Competition. 18 teams had participated out of which the best two projects were awarded with a cash prize. The winning projects were "Autonomous Driving Car using Convolutional Neural network" and "Sign Language Translator". Consolation prizes were given to "Amphibot", and "Electro Gastro Pelvic Graphy"







DAY 2: TECHZOAH

TECHZOAH is a platform for young engineers to present their research works in the field of Engineering. A Technical Paper Presentation Competition was held on 24th March 2018 in the college premises. Mr. Ram Bhosale who was pursuing his PhD from IIT Bombay and had completed his Master's from FCRIT, was invited as the judge for the competition. 21 teams had participated in the competition and the best two were awarded with a cash prize. The first prize was given to the paper titled "Indian Language Identification using Cochleagram based LPQ texture descriptor and Artificial Neural Network Classifier" by Ashish H. Jog, Omkar A. Jugade and Atharva S. Kadegaonkar and the second prize to "FPV Surveillance Bot" by Jetin Mathew and Shubhashish Bhattacharya.

Abstract: For a human translator, to identify more number of languages and to translate it accurately is difficult. The topic of identification of a spoken language has become an active research field in the community of speech processing. As language identification analysis systems are evolving, their multilingual capabilities are becoming more important. In this paper, a two level identification system for four Indian languages: Malayalam, Kannada, Manipuri and Marathi is proposed. In the first level, the approach converts the input speech signals into their corresponding Cochleagram Visual representation followed by their feature extraction using Local Phase Quantization (LPQ) texture descriptor. In the second stage the system identifies the spoken language using Pattern Net classifier.70% samples are used for training and rest 30% for testing of neural network. The overall accuracy obtained is 91.6%.



IEEE-CRIT Student Chapter (2017-18) released the magazine "LIVEWIRE 2018"

IEI STUDENTS' CHAPTER

The Institution of Engineers (India) [IEI] is a statutory body to promote and advance the engineering and technology, established in 1920 and incorporated by Royal Charter in 1935. It is the largest multi-disciplinary professional body of engineers encompassing 15 (fifteen) engineering disciplines with a membership of more than 820 thousand, and serving the nation for more than 9 decades. All the students of electrical department are members of the IEI students chapter. From the second year students four members are selected as the council members for the academic year 2017-18. The duration of the council is for one year.

COUNCIL MEMBERS:

- Saud Shaikh
- Utkarsh Mishra
- Khushboo Zope
- Shraddha Pawar

Advisor: Mrs. Divya Sajeesh

The following events were conducted under IEI for the academic year 2017-18

IEI EVENTS 2017-18

- > Mini Project competition
- > Intra departmental quiz
- > Expert lecture

Mini Project competition:

An intra departmental quiz competition was held on 22/07/2017. Twenty groups of 4 members each participated in the competition. The groups were judged by Mr. Ramachandra Bhosale, Research scholar from IIT, Bombay. First prize was awarded to group with title "Weather monitoring system", second prize for "single phasing preventer and overload protection for three phase induction motor" and third prize for "Lock using Arduino". Cash prize and certificates were awarded to the winning teams.

Quiz:

An intra departmental quiz competition was held on 19 January 2018. The response of students from 2nd and 3rd year was good so an elimination round was held to select the students for the final competition. Around 50 students participated out of which 20 were selected and 4 teams of 5 members each were formed. The teams were formed in a fair manner Technical and non-technical rounds were conducted. Teams were very competitive for each and every round held.

Expert Lectures:

The students of FCRIT were guided by experts on various topics. Around 30 expert lectures were conducted by the electrical department for students of semester 8, 6 and 4 by experts from different

fields. The lectures were on various topics related to the subjects that the students study. The lectures conducted are as follows:

Sr N o	Curriculum Gap	Action taken	Date Duration	Resource person Designation	No. of students Attende d	PO, PSO mappe d
1	Update the knowledge on recent technologie s	Impact of Electric Vehicle on Electrical power system	22/01/2018 02 Hr	Mr.Prathamesh Joglekar, L&T ,Mumbai	82	PO 7
2	Awareness about research	Modeling and designing feedback controller for DC to DC converter	06/02/2018 01 Hr	Ms.Mini Rajeev FCRIT,Vashi	82	PO 4
3	Update the knowledge on recent technologie s	Modeling of Buck converter using state space averaging for first order control	16/02/2018 01 Hr	Ms.Maitreyee Deshmukh, SIGCOE, Koparkhairne	74	PO 2
4		Project management	16/02/2018 01 Hr	Mr.Swapnil Tulsankar, Pidilite Industries Ltd	74	PO 8
5		Environmental sustainability	24/02/2018 01 Hr	Dr.Ivaturi Rao, Head- Corp Environment and Climate change, Tata power company Ltd	63	PO7
6		Electrical Safety	24/02/2018 01 Hr	Mr.M.M. Patro, Additional Chief Engineer, NPCIL,Mumbai	63	PO6
7		Advancements in Electric Traction Motors	28/02/2018 01 Hr	Mr.Jaipreet Singh, Saini Electrical &Engineering Works,Mumbai	74	PO12
8		Digital Signal Controllers and their Application in Power Electronics	03/03/2018 01 Hr	Mr.Prajof Prabhakaran, IIT,Bombay	70	PO4
9		Relay coordination and Discrimination	09/03/2018 01 Hr	Ms. Komal Gaikwad, ETAP, Vashi	82	PO 6
10	Awareness about research	Modeling of Induction machine in d-q reference frame	09/03/2018 01 Hr	Mr.Ramachandra Bhosale, IIT, Bombay	74	PO 3

11		EMI-EMC issues in power Electronic converters	09/03/2018 01 Hr	Mr.Ramachandra Bhosale, IIT, Bombay	79	PO 4
12		ETAP application in power system and electrical networks	09/03/2018 02 Hr	Ms. Komal Gaikwad, ETAP, Vashi	79	PO6
13		Maximum power point tracking system for solar PV panels	15/03/2018 01 Hr	Mr.Ketan.Jore, Primetals Technologies India Pvt.Ltd,Mumbai	79	PO12
14	Update the	Industrial drive	23/03/2018 02 Hr	Mr.Nerus Fernandes, Advait Electric Design,Turbhe	82	PO12
15	knowledge on recent technologie	Industrial applications of microcontrollers	23/03/2018 01 Hr	Ms.Rupali Saha, Autodata Company, Nerul	74	PO12
16	S	Hot Rolling and Cold Rolling Process of Metal Sheets	24/03/2018 01 Hr	Mr.Ketan.Jore, Primetals Technologies India Pvt.Ltd,Mumbai	79	PO12
17		Fault Analysis and Mitigation	31/03/2018 01 Hr	Ms. Komal Gaikwad, ETAP Automation , Vashi	74	PO6
18		Basics of Thermal Power Plant	8/08/2017 01 Hr	Mr.Abhijeet Walchale Alumni,ELECT Dept, FCRIT, Vashi	73	PO2
19		Power System Protection	05/09/2017 01 Hr	Mr.Arpit bohra Burns & McDonnell	74	PO2
20		Design of Electrical Sytems	09/09/2017 01 Hr	Mr.Amitkumar Yadav, Thyssenkrupp Industrial Solutions (India) Pvt. Ltd, Pune	74	PO3
21		Individual and Team	09/09/2017 01 Hr	Mr.Swapnil Tulsankar, Pidilite Industries Ltd	72	PO9
22		Transducers and Industrial Measurement	09/09/2017 01 Hr	Mr.Omprakash Barure, Bageshree Instrumentation Trainers and consultants	72	PO12
23		Entrepreneurship Development	09/09/2017 01 Hr	Mr.Prasad Menon Asst Professor, FCRIMS, Vashi	74	PO12
24		Java Swings	09/09/2017 01 Hr	Mr.Utkarsh Singh Trainee Engineer, L&T Pune	74	PO5

25		Power System Dynamics, Stability and Control	09/09/2017 02 Hr	Dr.S.R.Wagh, VJTI Matunga	74	PO2
26	Awareness about research	Closed Loop Control of DC-DC converters	18/09/2017 02 Hhr	Mr. Ramchandra Bhosale Research Scholar, IIT Bombay	150	PO12
27	Update the knowledge on recent technologie	Steel Making from Ore to Casted Iron	22/09/2017 01 Hr	Mr.Ketan Zore Graduate Trainee Engineer, Primetals Technologies India Private Ltd,Turbhe	73	PO12
28	s	Electrical Machines Testing, Control and applications	14/10/2017 02 Hr	Mr.Ketan Zore Graduate Trainee Engineer, Primetals Technologies India Private Ltd,Turbhe	55	PO12
29		Industrial Applications of Electronic Components	19/09/2017 01 Hr	Ms.Kartika Nair, Reliance Retail, Ghansoli	72	PO2
30	Awareness about research	EMC and EMI issues in Power Electronic Converter Circuits	18/09/2017 02 Hhr	Mr. Ramchandra Bhosale Research Scholar, IIT Bombay	150	PO5

ELECTRICAL ENGINEERS STUDENTS ASSOCIATION (EESA)

Committee Members (2017-2018)

Sr. No.	Post	Name		
1	Chairperson	Inshal Khan		
2	Secretary	Aishwarya		
3	Asstt. Secretary	Mitalee B.		
4	Treasurer	Meera Nair		
5	Magazine Editors	Sreehari S., Jyotsna A.		
6	Sponsorship Head	Sutej Mota		
7	Programme Co-	Kaveri P., Avadhut G., Sutej Mota, Mayuri G.,		
	ordinators	Shweta H., Prajakta N., Ankita P., Nincy G., Jersan		
		G., Renuka C.,		

REPORT OF EESA (2017-18)

EESA (Electrical Engineering Student Association) is an organization that aims at all round development of electrical engineering students technically and culturally. EESA conducted workshop and events under fest named Torque 2K18, a techno-cultural fest for electrical students only.

Activities conducted under EESA during July 2017 to March 2018

1. Endeavor Seminar:

Date - 03/08/2017

Sr. No.	TOPIC	CLASS
1	"Preparation of Competitive Exams like MBA, GRE	Sem 3 (Electrical)
	etc."	
2	"Profile building for higher studies abroad"	Sem 5 (Electrical)
3	"Education Abroad"	Sem 7 (Electrical)

2. Maintenance Workshop of Electrical Equipment:

Date -18/10/2017

Course conducted by – Mr. Sawant and Mr. Shashank

Class: Sem 3 (Electrical)

No. of Participants: 38

3. Social Activity: Cleanliness Campaign

Date -03/02/18

Class – Sem 4, 6, 8 (Voluntarily around 90 students)

Description: A cleanliness drive was organized on Saturday, 3rd Feb. 2018 with permission from NMMC with an objective of enhancing awareness among teenagers to keep their environment clean. Students were divided into a no. of groups and given material like bags and hand gloves. Area around Mini sea shore in Vashi was selected to carry out the activity. Good response was seen from all the students.

4. Technical Events under Torque – 2k2018

Many technical events under EESA (2017-18) were organized for Electrical students of sem 4 and 6 to test their technical skills and capabilities.

Date: 17/2/2017

Sr. No.	Time	Event	Winner		
			S		
			$\mathbf{1^{st}}$	2 nd prize	
			prize		
1	9.30	Technical Quiz	Shivam Maurya,	Saurabh Shelke,	
	am		Prajakta Makhi (sem 4)	Pratik Raut (sem 4)	
2	11.45	Pirates of the	Bennedict and Merlin	Anindita and	
	am	circuit	(sem 6)	Shekhar (sem 6)	
3	1.45	Melt the Metal	Bennedict and Merlin	Varun Patil and	
	pm		(sem 6)	Bhavesh G. (sem 4)	