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CHIEF EDITORIAL MESSAGE



With great pleasure and honour I write this foreword. Indeed, this newsletter has a lot to look forward. **I am happy that our department started in the year 1994 with B.Tech-EEE programme has completed 25 years and is now celebrating Silver Jubilee year. During these 25 years EEE department has crossed several milestones and contributed to society in the form of education to engineering students.**

Started with B.Tech – EEE in 1994 with an intake of 60 later enhanced to an intake of 120 in the year 2012. PG programme of M.Tech-Power Electronics was started in the year 2013. B.Tech-EEE program has been accredited by NBA two times under Tier-II from 2011-14 and 2016-19. I am glad to inform that now B.Tech-EEE program has been accredited by NBA under Tier-I for three years from 1st July 2019.

The Department has also witnessed the strong force of faculty. At present the Department has faculty strength of 34 with diversity of specialization, out of which 18 of them have Doctorates, 10 are pursuing PhD and 6 are with M.Tech. Alumni are the main pillar for the growth of the Department. I would like to offer my sincere thanks to all the Alumni for their support in guiding the students through invited lectures, supporting for internships and industry visits. Suggestions from stakeholders have added value during the reforms taken time to time.

This newsletter displays the contributions by faculty & students and activities conducted in the Department during June 2020 to December 2020 (Odd semester of AY 2020-21). I am happy to share that this semester department has witnessed three of the faculty have been awarded with PhD. The experience of the faculty made it possible to conduct national and international FDPs with great support from industry experts and academic intellectuals from foreign Universities, IITs and NITs.

I am also proud to inform that our students have made the EEEA activities more vibrant with hands-on sessions and training programmes. I would like to offer a word of thanks to our readers, our contributors, and our editorial board for their support of the journal and its mission: to improve the quality of technical education to the students. This newsletter will provide a glimpse of faculty and student achievements in even semester of academic year 2019-2020.

-Prof. C. VENKATESH
HoD, EEE

VISION AND MISSION OF THE DEPARTMENT

VISION

To fulfill the needs of the industry and society through excellence in education and research in electrical engineering

MISSION

- To produce globally competent engineers in Electrical & Electronics Engineering
- To promote scientific inclination and cultivate professional ethics
- To serve organization and society as adaptable engineers, entrepreneurs or leaders

B.Tech – Electrical & Electronics Engineering

Program Educational Objectives (PEOs):

Within first few years after graduation, the ELECTRICAL & ELECTRONICS ENGINEERING graduates will be able to ...

- | | | |
|--------------|----------------------------|---|
| PEO1 | Technical Expertise | Apply the knowledge of electrical and electronics engineering to develop solutions for complex problems of electrical power industry and allied engineering areas. |
| PEO 2 | Successful Career | Demonstrate innovation & creativity in their professional practice, work effectively as an individual and in a team in multidisciplinary areas towards sustainable development. |
| PEO 3 | Lifelong learning | Adapt to a constantly changing field through higher education, professional development and self-study for contributing to well-being of society. |

Program Outcomes (POs): Engineering Graduates will be able to

- | | |
|------------|--|
| PO1 | Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. |
| PO2 | Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. |
| PO3 | Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. |
| PO4 | Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. |
| PO5 | Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. |

- PO6 The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7 Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8 Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9 Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10 Communication:** communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11 Project management and finance:** Demonstrate knowledge

and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

- PO12 Lifelong learning:** recognise the need for and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

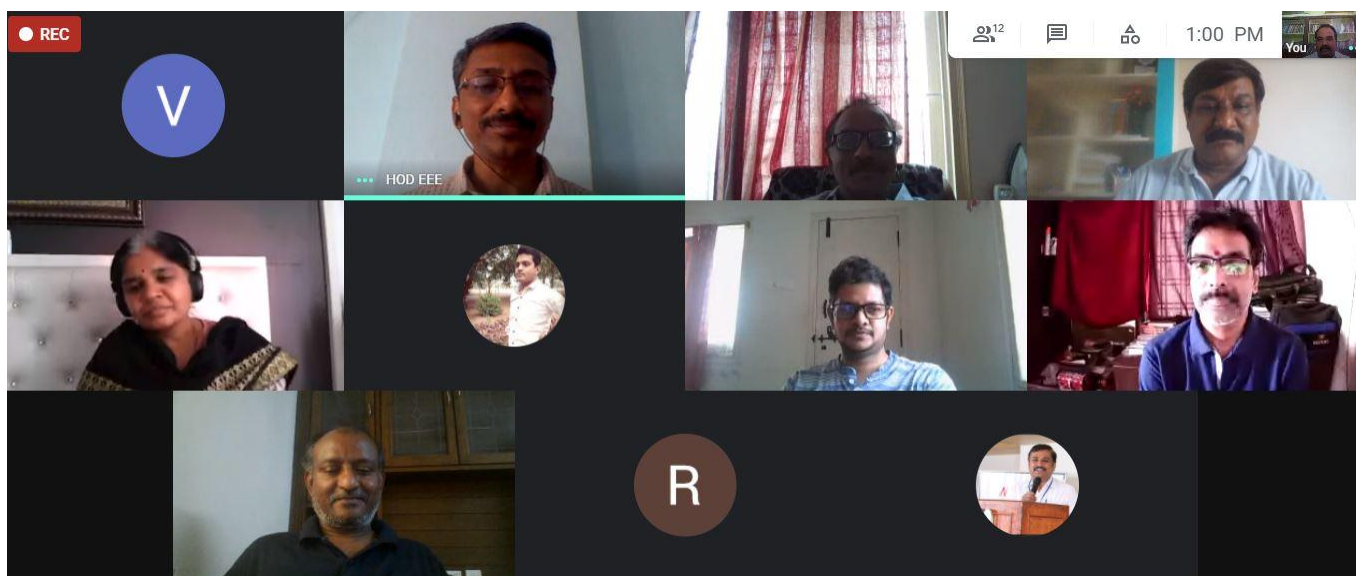
Program Specific Outcomes (PSOs):

- PSO1** apply the fundamental knowledge of electrical and electronics engineering in providing solutions for modern power industry and multi-disciplinary areas
- PSO2** analyse, design and simulate systems to generate, transmit, distribute, utilize and control electrical energy to meet societal and environmental needs using electrical and electronic systems

Department Events:

Board of Studies (BoS) Meeting:

Board of Studies Meeting held on 12.11.2020 and BoS have approved the syllabus the syllabus for M.Tech PE – I to IV semesters under PRR20.



Details of New laboratories established during July – December 2020:

S.No	Name of the New laboratory	B.Tech/ M.Tech	Details of the equipment added	Make & specifications	Cost (Rs.. in lakhs)
1	Basic Electrical Engineering lab	B.Tech	Regulated Power Supplies, 1-Ph transformers, 1-Ph Auto-transformer, 3-Ph Auto-transformer, Function Generators, 4 digit DMMs, Measuring Instruments	MECO, Scientech, Devi Electronics	4,83,505/-

Student Induction Programme- 2020:

REVISED SCHEDULE OF SIP 2020 / UHV-I PROGRAMME THROUGH VIRTUAL MODE

Date/Day	STREAM WISE ACTIVITY			CLASS WISE ACTIVITY
	Session-1 (9:00 am to 10:00 am)	Session-2 (10:30 am to 11:30 am)	Session-3 (12:00 pm to 1:00 pm)	Session-4 (2:30 pm to 3:30 pm)
	Stream-I: ME, CSE, IT, CSN & CSO Stream-II: CE, EEE, ECE, ECI & CSM (Students can attend through Microsoft Teams STREAM GROUP as per the given instructions to use Microsoft Teams App)			(Students can attend through Microsoft Teams Teams DEPARTMENT/ CLASS WISE GROUP as per the given instructions to use Microsoft Teams App)
26.11.2020 (Thursday)	INAUGURAL ACTIVITY (by HoDs of PS/MH) Stream I: Expert talk on UHV by Dr. CH. Sateesh Chandra, Assoc. Prof. of PS Stream II: Expert talk on UHV by Dr. K. Rajendra Prasad, Asst. Prof. of PS	Stream I: Expert talk on Personality Development by External speaker, Prof. CH. Sribabu, Retd. Prof., KITSW Stream II: Expert talk on Psychology by External speaker, Sri Barupati Gopi, Psychologist	Stream I: Importance of Online MOOCs certification by Prof. U. Shrinivas Balraj, Prof. of ME Stream II: Importance of Online MOOCs certification by Dr. P. Vijay Kumar, Faculty I/c, SWAYAM MOOCs & Asst. Prof. of CSE	ESSENCE OF SIP by B.Tech. III Sem students identified by HoD of Engg. Department (Through Department Groups)
27.11.2020 (Friday)	Stream I: Expert talk on UHV by External speaker, Sri K. Giridhar Technical Lead, TCS, Hyderabad Stream II: Expert talk on UHV by External speaker, Dr. V. Harikumar Assoc. Prof., NITW	Stream I: Expert talk on Psychology by External speaker, Sri Barupati Gopi, Psychologist Stream II: Expert talk on Personality Development by External speaker, Prof. CH. Sribabu, Retd. Prof., KITSW	EMERGING TRENDS specific to Branch by respective Department coordinators identified by HoDs of Engg. Depts. (Through Department Groups)	IDEATION FEST Theme : "ROLE OF AN ENGINEER IN SMART CITY SCENARIO" by respective class teachers (Through Class wise Groups)

Date/Day	Session-1 (9:00 am to 10:00 am)	Session-2 (10:30 am to 11:30 am)	Session-3 (12:00 pm to 1:00 pm)	Session-4 (2:30 pm to 3:30 pm)
28.11.2020 (Saturday)	<p>Stream I: Expert talk on UHV by <i>External speaker,</i> Dr. V. Harikumar <i>Assoc. Prof., NITW</i></p> <p>Stream II: Expert talk on UHV by <i>External speaker,</i> Sri K. Giridhar <i>Technical Lead,</i> <i>TCS, Hyderabad</i></p>	<p>Stream I: ALUMNI CONNECT by <i>Prominent Alumni/</i> <i>KITSWAA</i></p> <p>Stream II: ALUMNI CONNECT by <i>Prominent Alumni/</i> <i>KITSWAA</i></p>	<p>DEPARTMENT ALUMNI INTERACTION by <i>respective Engg.</i> <i>Departments</i></p> <p>(Through Department Groups)</p>	<p>ACTIVITY BY SAC CLUBs (Awareness/Quiz) by <i>Student organizing committee of SAC clubs under the supervision of Faculty I/c ,SAC Club</i> (Through Department Groups)</p>
01.12.2020 (Tuesday)	<p>Stream I: Expert talk on UHV by Dr. V. Chandra Sekhar Rao, <i>Assoc. Prof. of CSE</i></p> <p>Stream II: Expert talk on UHV by Sri M. Narasimha Rao, <i>Assoc. Dean SA & Assoc. Prof. of EEE</i></p>	<p>Stream I: Importance of SOFT SKILLS & ENGLISH COMMUNICATION by <i>Dept. of MH faculty</i></p> <p>Stream II: Importance of SOFT SKILLS & ENGLISH COMMUNICATION by <i>Dept. of MH faculty</i></p>	<p>Stream I: Importance of YOGA IN DAILY LIFE by Dr. C. Srinivas, <i>Assoc. Prof. of CSE</i></p> <p>Stream II: Importance of YOGA IN DAILY LIFE by Sri S. Ramesh, <i>Asst. Prof. of ME</i></p>	<p>FEED BACK COLLECTION & VALEDICTORY by <i>respective class teachers</i> (Through Class wise Groups)</p>

Faculty Contributions:

Projects applied for getting Funding AICTE/DST/UGC/others:

S.No	Scheme	Title of the project	Applied to (Funding Agency)	Funding Amount (Rs. in lakhs)	Coordinator
1	AICTE RPS	Control of grid interfaced solar PV System with Electric Vehicle Battery Charging System	AICTE	25,00,000	Prof. V. Rajagopal
2	DST-TMD (Technology Missions Division)	Solar based Automated Sustainable Crop Protection System	DST	55,95,000	Dr. B. Pradeep Kumar

Details of the Journal Paper Publications of the Faculty Published, during July'2020 – December'2020

S. No	Name of the Faculty	Title with page nos.	Name of the Journal	ISSN/ ISBN No.
1.	V. Rajagopal	Compensation of Voltage based Power Quality Problems using Sliding Mode Observer with Optimized PI controller Gains	IET Generation, Transmission & Distribution	pp. 2656 – 2665, vol. 14, no. 14, July 2020
2.	V. Rajagopal	Ant Lion Algorithm for Optimized Controller Gains for Power Quality Enrichment of Off-Grid Wind Power Harnessing Unit	Chinese Journal of Electrical Engineering	pp. 85 – 97, vol. 6, no. 3, Sep 2020
3.	C. Pavan Kumar	Single-Phase PV System with Continuous H-Bridge Inverter	Springer - Innovations in Electrical and Electronics Engineering.	978-981-15-2256-7
4.	Dr. V.Prakash	Single-Phase PV System with Continuous H-Bridge Inverter	Springer - Innovations in Electrical and Electronics Engineering.	978-981-15-2256-7
5.	Dr. B. Pradeep Kumar	Estimation of PV Module Degradation Through Extraction of I-V Curve at Inverter Pre-Startup	IET Renewable Power Generation (accepted for publication in Dec 2020).	1752-1416 DOI: 10.1049/iet-rpg.2020.0316

Details of STTPs/ FDPs/ Workshops/Webinars attended by the faculty during July'2020 – December'2020

S. No	Name of the Faculty	STTP/FDP/ workshop # /others	Details@	Venue	Duration & Dates
1	Prof. C. Venkatesh	FDP	Electric Vehicles	AICTE-ATAL MANIT, Bhopal	One Week & 28 th to 1 st Jan 2021
2	Prof. C. Venkatesh	FDP	Fundamentals of MATLAB-Simulink & its inclusion to IIRE	EEE & IIC	One Day & 5 th December 2020
3	Prof. C. Venkatesh	Workshop	Universal Human Values-II	IQAC & CHE - KITSW	One Day & 25 th July 2020
4	Prof. C. Venkatesh	FDP	Arduino	SKN Sinhgad College of Engineering, Pandharpur	One Week & 6 th to 10 th July 2020
5	Prof. C. Venkatesh	FDP	Recent Trends in Microgrid Technologies	Vignan Institute of Technology & Science, Hyd.	One Week & 6 th to 11 th July 2020
6	V. Rajagopal	FDP	Advanced Engineering Optimization through Intelligent Techniques	SVNIT Surat	One Week 01-05 September 2020
7	V. Rajagopal	FDP	Real Time Applications of Opal RT for Power Electronics, Smart Grid and Micro Grid	VIT Chennai	03rd - 07th August 2020
8	Dr.B.Jagadish Kumar	FDP	Recent technological advances in Power systems & Power Electronics Drives	SNIST, Hyderabad	27-7-20 to 31-7-20
9	Dr.B.Jagadish Kumar	FDP	Electric Vehicles Design, Development & Challenges'	SWEC, Hyderabad	15.07.2020 to 21.07.2020
10	Dr.B.Jagadish Kumar	AICTE/ FDP	Recent Developments and Entrepreneurship in sustainable Green Energy Technologies and smart Grids	Department of EEE , BVRIT, Narsapur	21 st -26 th September, 2020
11	Dr.B.Jagadish Kumar	FDP	Demystifying Electric Vehicle	Manipal University, Jaipur	14-9-20 to 18-9-20
12	Dr.B.Jagadish Kumar	AICTE/ FDP	AI Techniques to Electrical Engineering	JNTU, Hyderabad	6-7-20 to 10-7-20
13	C. Pavan Kumar	AICTE ATAL FDP	Energy Engineering	NIT, Tiruchirappally	28-12-2020 to 01-01-2021

14	C.Pavan Kumar	AICTE ATAL FDP	Energy Engineering	Government College of Engineering, Thanjavur	21-12-2020 to 25-12-2020
15	C. Pavan Kumar	AICTE ATAL FDP	Green Technology & Sustainability Engineering	St. Joseph's Institute of Technology	14-12-2020 to 18-12-2020
16	C. Pavan Kumar	Online webinar	LabVIEW	by Lab VIEW Academy, SJBIT, Bengaluru	04-05-2020 to 08-05-2020
17	C. Pavan Kumar	WEBINAR	Live Online Skill Development Program on MATLAB Fundamentals	Agimus Technologies	9 th and 10 th of May 2020
18	C. Pavan Kumar	National level One Week Virtual FDP on R Programming	R Programming	IIT Bombay, Spoken Tutorial Project	25 th to 29 th May, 2020.
19	C. Pavan Kumar	International Faculty Development Programme	Research Challenges and Innovations in Renewable Energy Systems	Aarupadai Veedu Institute of Technology (AVIT) an ambit Institution of Vinayaka Mission's Research Foundation	11/05/20 to 16/05/20
20	C.Pavan Kumar	Five-Day National Level online FDP	Cutting-Edge Technologies for Electrical Engineering	Andhra Loyola Institute of Engineering and Technology, Vijayawada	18 th to 22 nd May, 2020
21	C.Pavan Kumar	One-week National Level Online FDP	Machine Learning And Applications	S.I.R.T., Bhopal In association with IEEE MP Sub Section, ACM and CSI SIRT Chapter	18 May to 23 May 2020
22	C.Pavan Kumar	FDP	Research Opportunities in Electrical engineering	Kallam Haranadhareddy Institute of Technology, Guntur, AP	20/05/2020 to 21/05/2020
23	C.Pavan Kumar	Webinar	SILICON CARBIDE (SiC) POWER DEVICES FOR RENEWABLE ENERGY SYSTEM	Swarnandhra College of Engineering & Technology	May 26 th , 2020
24	C.Pavan Kumar	FDP	Design & Development of Photovoltaic Modules For PV Generation	Lendi Institute of Engineering & Technology	25-05-2020 to 30-05-2020

25	C.Pavan Kumar	FDP	Micro Grid, Electric Vehicles and Allied Areas (MGEVAA-2020)	Kakatiya Institute of Technology & Science, Warangal	1st -5th June 2020
26	C.Pavan Kumar	FDP	Recent Trends in Electrical Engineering	Vaagdevi college, warangal	08-06-2020 to 10-06-2020
27	C.Pavan Kumar	FDP	Renewable Energy Systems	Panimalar Institute of Technology, Poonamallee, Chennai	8 th June 2020(Monday) to 12 th June 2020(Friday),
28	C.Pavan Kumar	FDP	Emerging Technical Aspects of Current Learning Needs for Faculty	Amity School of Engineering and Technology, Amity University Kolkata	22.06.2020 till 27.06.2020
29	K. Ajith	AICTE Training And Learning (ATAL) Academy one week Online FDP	Electric Vehicles	Maulana Azad National Institute of Technology	28 / 12 / 2020 to 1/ 1/ 2021
30	K. Ajith	AICTE Training And Learning (ATAL) Academy one week Online FDP	Control Systems & Sensors Technology	Madan Mohan Malaviya University of Technology Gorakhpur	17/10/ 2020 to 21 /10/ 2020
31	K. Ajith	One week Short term course under the aegis of NaMPET Phase-III Ministry of Electronics and Information Technology	Transition in power electronics towards sustainable, smart and flexible micro grids	National Institute of Technology, Delhi	19-10-2020 to 23-10-2020
32	K. Ajith	One week FDP	Operation and Control of Various Resources in Microgrid	National Institute of Technology Warangal	20/7 /2020 to 07/24 /2020.
33	K. Ajith	One Week National Level Faculty Development Programme	Current Research Trends in Power Systems and Power Electronics	VIGNAN'S Nirula Institute of Technology and Science for Women	20th - 25th July 2020
34	Dr. D. Rakesh Chandra	AICTE FDP	Renewable Energy Development in Deregulated Power Market	JITS, NSPT	One Week & 27 th July to 1st August 2020
35	Dr. D. Rakesh	ATAL FDP	Advances in PE for Hybrid	NIT, A.P	One Week &

	Chandra		Vehicle - 2020		11 th Decto 15 th December 2020
36	Dr.A.MAdhuk ar Rao	ATAL FDP	Electrical & Computer Engineering	NIT PATNA	2021-2-8 to 2021-2-12
37	Dr.A.MAdhuk ar Rao	ATAL FDP	"Electric Vehicles"	Maulana Azad National Institute of Technology	2020-12-28 to 2021-1-1
38	Dr.A.MAdhuk ar Rao	ATAL FDP	Advances in Power Electronics for Hybrid Electric Vehicle-2020	National Institue of Technology Andhra Pradesh	2020-12-11 to 2020-12-15
39	Dr. A. Rajasekhar	FDP	Advancements in Artificial Intelligence and Machine Learning in Robotics	PSG college of Technology, Chennai (Online)	One day 6 th August 2020
40	Dr. A. Rajasekhar	FDP	Teaching and Learning of Advanced Control Systems	NIT, Warangal	10th to 16th, August,2020
41	Dr. A. Rajasekhar	ATAL FDP	Smart Cities	Punjab Engineering College Chandigarh	24th to 28th, August, 2020
42	Dr. M. Santhosh	FDP	Blockchain Architecture, Ethereum and Hyperledger (BACH)	Department of CSE, KITS Warangal	8 th to 12 th July, 2020
43	Dr. M. Santhosh	FDP	Cloud Computing with Microsoft Azure	Software Development Team, TATA Consultancy Services, Bangalore	22 nd to 29 th July, 2020
44	Dr. M. Santhosh	ATAL FDP	Blockchain received Grade "A++ (28/30 marks)" in the continuous assessment.	AICTE Training And Learning (ATAL) Academy and Dept. of CSE, The National Institute of Engineering	15 th to 19 th December, 2020
45	V. Prakash	FDP	SAP Business One	KITS Warangal	Two Week & 22 nd July to 7 th August 2020
46	B. Reshma	FDP	Digital Image Processing and Its Application(national level three day FDP)	Sai Spurthi Institute of Technology	Three day & 9 th - 11 th July, 2020
47	B. Reshma	FDP	Recent Trends in Hybrid and Electric vehicle	KITS, Warangal	Six Day & 6 th July to 11 th

			technologies(6 days short term training program)		July 2020
48	B. Reshma	FDP	Contemporary in Electrical Engineering and Aiding Technologies	St.Joseph's College of Engineering	Five day & 6 th to 10 th July 2020
49	B. Reshma	FDP	Emerging Trends in Electrical Engineering	Kavikulguru Institute of Technology and Science RAMTEK	Five day & 2 nd to 4 th July 2020
50	B.Reshma	FDP	Real Time Typhoon HIL Simulation Applications for Power Systems, Power Electronics Based RES, Electric Vehicles and Microgrid	Anurag University, Hyderabad	Five Day & 10 th August to 14 th August 2020
51	B.Reshma	FDP	Recent Advancements in Power Electronics and Power Conversion for Distributed Generation	Balaji Institute of Technology and Science	One week & 20 th July to 25 th July 2020
52	B.Reshma	FDP	New Role of Microwaves in Defence	Bharat Institute of engineering and Technology	One week & 20 th July to 25 th July 2020
53	B.Reshma	STTP	Electric Vehicle Battery Charging System with Renewable Energy Sources	Kakatiya Institute of Technology and Science, Warangal	One week & 2 nd November to 7 th November 2020
54	B.Reshma	FDP	Controller Hardware-in-the-Loop Simulation: Tool for Future Electrical Engineers	Mahatma Gandhi Institute of Technology	One day National level & 24 th July July 2020
55	B.Reshma	FDP	Hand-on Working with E-Tap Modules : Draw SLD, Load Flow and Fault Current Study	Mahatma Gandhi Institute of Technology	One day National level & 26 th July July 2020
56	B.Reshma	FDP	Intellectual Property rights and Patent Filing	Research and Development(R&D) and National Innovation and Start-up Policy(NISP) cell, Mahatma Gandhi Institute of Technology	Two days & 11 nd September to 12 th September 2020
57	B.Reshma	FDP	Research Challenges in Renewable Energy Technologies	New Horizon College of Engineering in	Seven days & 14 nd September to 20 th

				associated with IEEE NHCE	September 2020
58	B.Reshma	FDP	Recent Advance in Electronics Engineering	Santhiram Engineering College	One week & 20 nd July To 26 th July 2020
59	B.Reshma	FDP	Recent Technological Advances in Power Systems and Power Electronics Drives	Sreenidhi Institute of Science and Technology in collaboration with PWSIM Engg Solutions	One week & 27 nd July To 31 th July 2020
60	Dr. Alladi Pranay Kumar	FDP	Electric vehicle battery charging system with renewable energy sources	KITS, Warangal	One Week & 2 nd to 7 th Nov 2020
61	Dr. Alladi Pranay Kumar	FDP	Electric vehicles	MNIT Bhopal	Five day & 28 th Dec 2020 to 1 st Jan 2021
62	Dr. B. Pradeep Kumar	FDP	Electric vehicle battery charging system with renewable energy sources	KITS, Warangal	One Week & 2 nd to 7 th Nov 2020

Conferences attended by the faculty for presenting research papers, during July'2020 – December'2020

S.No	Name of the Faculty	Details of conference where papers were presented	Venue	Dates of the conference	Title of the paper presented, including page numbers
1	C. Venkatesh	Springer 4th International Conference on Data Engineering & Communication Technology (ICDECT-2020)	Kakatiya Institute of Technology & Science (KITS), Warangal, Telangana	25 th to 26 th Sept 2020	Neuro-Wavelet Approach of SVC Compensated Six-Terminal Transmission Line Protection with Hybrid Generation
2	Dr. M. Santhosh	21st National Power Systems Conference (NPSC 2020)	IIT Gandhinagar	December 17-19, 2020	Ensemble deep learning model for wind speed prediction
3	Dr. A. Madhukar Rao	AMSB 2020	VIT Chennai	23rd to 24th July	DC offset minimisation of five level inverter for PV generation system
4.	Dr. B. Jagadish Kumar	Fifth International Online Multidisciplinary Research Conference (IOMRC-2020)	Osmania University Centre for International Program, Hyderabad (India)	26.12.2020	Investigations on plug-in hybrid electric vehicle
5.	Dr. B. Jagadish Kumar	6 th International Conference Shaastrath-2020	Rungta College of Engineering & Technology,	19 th -20 th December 2020	Design and Fabrication of Plug In Hybrid Electric Motor Cycle

			Bhilai(C.G), India		
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Details of FDPs/ STTPs / Workshops/ Conferences organized by the Department during July'2020 – December'2020

<i>S.No</i>	<i>Organized STTP/ FDP/ Workshop/ Conference</i>	<i>Title of STTP/ FDP/ Workshop/ Conference</i>	<i>Duration & Dates</i>	<i>Convenors & Coordinators</i>	<i>No. of participants</i>
1	Training	Control System Simulation - A MATLAB Approach	Five day, 21 st Dec to 25 th Dec 2020	C. Venkatesh Dr. G. Rajender Naik Sri. T. Praveen Kumar Dr. A. Rajasekhar	13
2	AICTE Sponsored STTP Phase 1	Electric Vehicle Battery Charging System with Renewable Energy Sources	2 – 7 November, 2020	C. Venkatesh V Rajagopal	100
3	AICTE Sponsored STTP Phase 2	Electric Vehicle Battery Charging System with Renewable Energy Sources	Dec 14 - 19 2020	C. Venkatesh V Rajagopal	47
4	Workshop	Fundamentals of MATLAB-SIMULINK & its inclusion into I2RE T-L Process (FMSITLP)	5 th Dec. 2020	C. Venkatesh T. Praveen Kumar	80

PHOTOS OF CONTROL SYSTEM SIMULATION- A MATLAB APPROACH (21st to 25th December 2020):



Photo 1: Principal Prof. K. Ashoka Reddy while giving presidential remarks



Photo 2: Introducing of Participants



Photo 3: Group Photo with Principal, IQAC-Coordinator, HoD-EEE, Coordinators and Participants during Inaugural Function on 21.12.2020



Photo 4: Dr. G. Rajender Naik, KITSW while delivering the Lecture



Photo 5: Participants observing the responses in DSO while performing the experiment



Photo 9: Participants performing the experiment to plot root locus using MATLAB



Photo 10: Dr. A. Rajasekhar, KITSW while delivering the Lecture

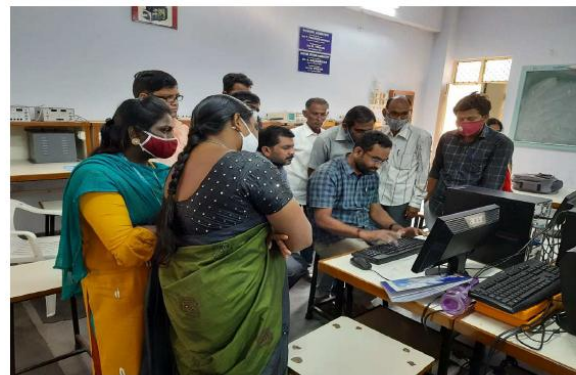


Photo 13: Participants listening to the speaker while explaining how to write a program for Nyquist plot in MATLAB



Photo 19: Participants listening to the speaker while explaining Compensation with Lead-Lag Compensation Study Unit



Photo 21: Sri T. Praveen Kumar Welcoming Honourable Principal Dr. K. Ashoka Reddy and HOD, EEE, Dr. C. Venkatesh and Participants to Valedictory Function

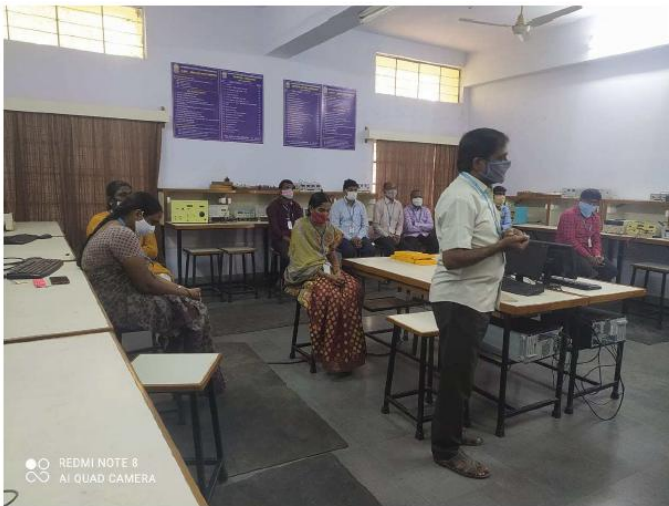


Photo 23: Participant E. Kamalakar giving feedback on Training Program

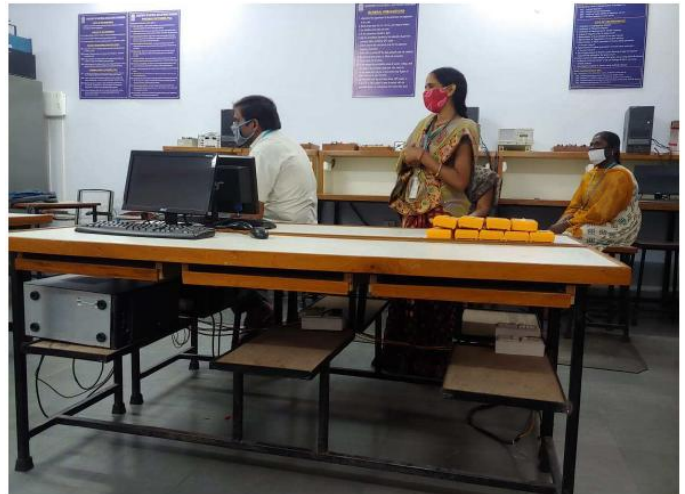
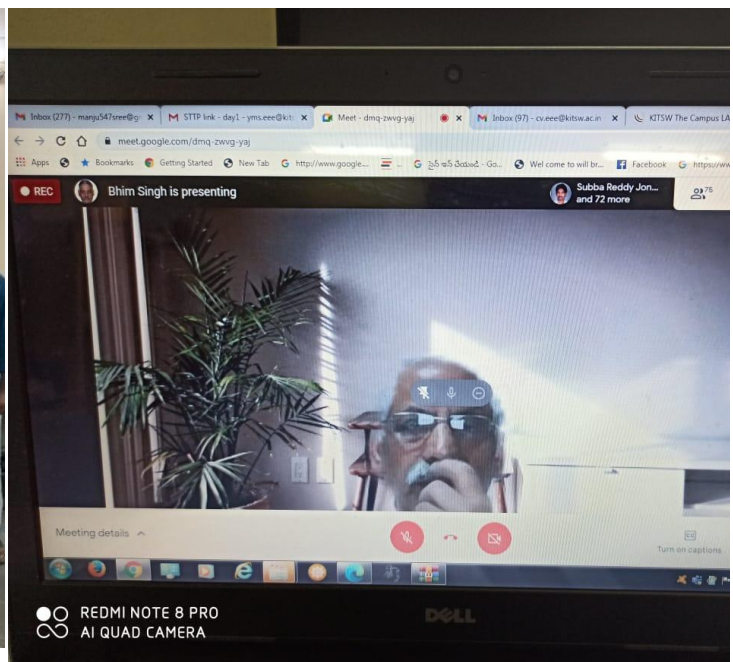
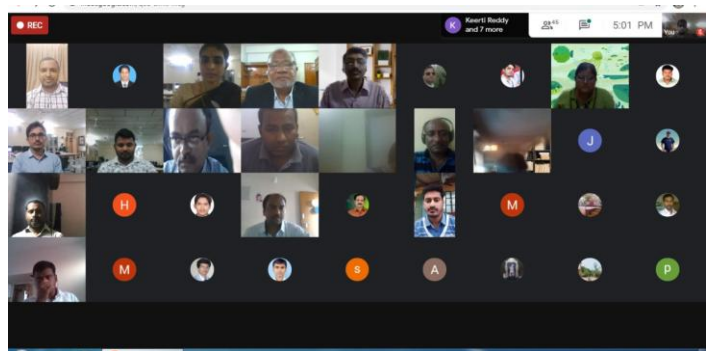
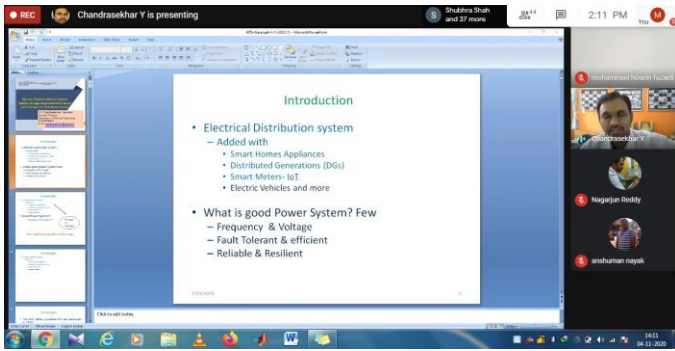
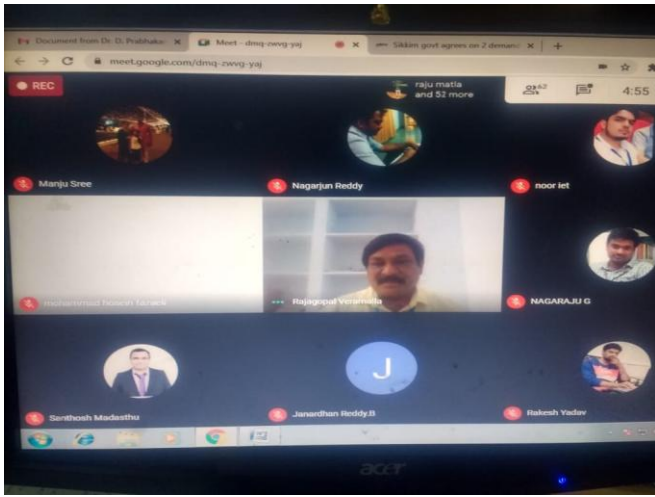


Photo 24: Participant Y. Rekha giving feedback on Training Program



Photos of AICTE Sponsored STTP Phase-1 and Phase-2: Electric Vehicle Battery Charging System with Renewable Energy Sources





Details of expert lectures delivered by the faculty inside & outside the institution during July – December 2020:

S. No.	Name of the faculty	Expert lecture delivered	Dates	Venue
1.	Prof. C. Venkatesh	Wavelet Transform for Power Quality Problem Classification and Protection	1st to 7 th July 2020	Sridevi Women's Engineering College, Hyd.
2.	Prof. C. Venkatesh	Power Quality Issues in Distributed Generation	20 th to 25 July 2020	Balaji Institute of Technology & Science, Narsampet
3.	Prof. C. Venkatesh	Plugged in Electric Vehicles: Power Quality Concern	Nov 02 -07, 2020	KITS Warangal
4.	Prof. V. Rajagopal	Emerging trends and challenges in Electrical Engineering – 2020	22 nd to 27 th June, 2020	Vaageswari College of Engineering, Karimnagar
5.	Prof. V. Rajagopal	Webinar Series on Recent Trends in Electrical Engineering	08 th June, 2020 to 10 th June, 2020	Vaagdevi Engineering College Warangal
6.	Prof. V. Rajagopal	Power Electronic Applications to Renewable energy systems and Energy storage systems	July 06-10, 2020	The National Institute of Engineering Mysuru
7.	Prof. V. Rajagopal	Solar Photovoltaic Power with MPPT	Nov 02 -07, 2020	KITS Warangal
8.	Prof. V. Rajagopal	Solar Power with Reduced Switch Multilevel Inverter	20 -25 July 2020	BITS Narsampet
9.	Prof. V. Rajagopal	Control of Grid-Tied Solar Power Generation with Improved Dynamics and Power Quality	14 - 19 Dec 2020	KITS Warangal
10.	Dr. Y. Manjusree	Multiterminal transmission line Protection using Wavelets	23 rd -27 th June 2020	KITS, Warangal
11.	Dr. D. Rakesh Chandra	Power System Stability Issues with Grid Connected Wind Energy Systems	20 th May 2020	Andhra Loyola Institute of Engineering and Technology, Vijayawada
12.	Dr. D. Rakesh Chandra	Wind Power Forecasting Using AI Techniques	3 rd June 2020	St. Peter's Engineering College, Hyderabad
13.	Dr. D. Rakesh Chandra	Demand Side Mangement in a Smart Microgrid in the Presence of Wind Generation	17 th June 2020	G. Narayanamma Institute of Technology & Science, Hyderabad

14.	Dr. D. Rakesh Chandra	Wind Power Grid Integration Issues in Power System	27 th June 2020	KPRIT, Hyderabad
15.	Dr. A. MadhukarRao	Energy Balancing of Multi source fed multilevel inverter for PV generation System	9 th June 2020	Vaagdevi Engineering College, Warangal
16.	Dr. A. MadhukarRao	Battery Energy balancing of DC-AC converter for EV applications	16 th Dec 2020	AICTE sponsored STTP on EVBCS at KITSW
17.	Dr. A. MadhukarRao	Fault tolerant multilevel inverter for PV generation system	25 th July 2020	BITS Narsampet
18.	Dr. M. Santhosh	LaTeX – A Scientific Documentation Tool	11 th to 12 th June 2020	IEEE Student Branch, NIT Warangal
19.	Dr. M. Santhosh	MATLAB Basics	4 th to 6 th July 2020	EEEE, KITS Warangal
20.	Dr. M. Santhosh	Electric Vehicle Battery Charging Station Vs Battery Swapping Station and associated Research Aspects	18 th December 2020	AICTE sponsored STTP on EVBCS at KITSW

Details of Workshops/training attended by the non-teaching faculty:

S. No	Name of the Staff	Workshops/training /others	Details@	Venue	Duration & Dates
1	Sri.P.Samm aiah	Control System Simulation - A MATLAB Approach	Training	EEE Dept., KITS Warangal	Five day, 21 st Dec to 25 th Dec 2020
2	Sri M.Sridhar	Control System Simulation - A MATLAB Approach	Training	EEE Dept., KITS Warangal	Five day, 21 st Dec to 25 th Dec 2020
3	Sri B.Kamalakar	Control System Simulation - A MATLAB Approach	Training	EEE Dept., KITS Warangal	Five day, 21 st Dec to 25 th Dec 2020

4	Sri G.Chandra Mouli	Control System Simulation - A MATLAB Approach	Training	EEE Dept., KITS Warangal	Five day, 21 st Dec to 25 th Dec 2020
5	Sri M.Vikram	Control System Simulation - A MATLAB Approach	Training	EEE Dept., KITS Warangal	Five day, 21 st Dec to 25 th Dec 2020

EEE ASSOCIATION DETAILS:

- 1. President: D. Sravan Kumar (IV/IV, B. Tech)**
- 2. Vice president: Md Arshad (IV/IV, B. Tech)**
- 3. Vice president: K. Varenya (IV/IV, B. Tech)**
- 4. Chief Secretary: Sd Abeeunisa (IV/IV, B. Tech)**
- 5. Chief Secretary: P. Nikhil (IV/IV, B. Tech)**
- 6. Joint Secretary: M. Rumitha (III/IV, B. Tech)**
- 7. Joint Secretary: D. Nikhil (III/IV, B. Tech)**
- 8. Event Managers: L Nithin, T. Santhoshy, A. Sai Kiran and N. Kushal**

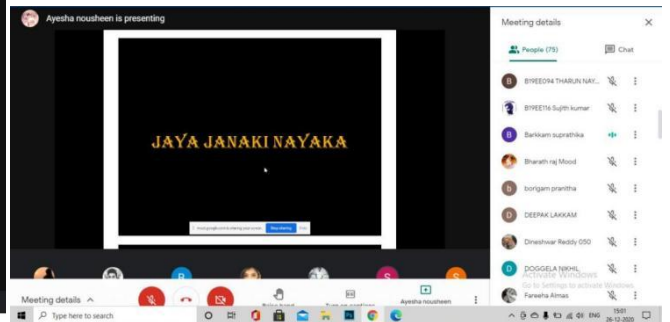
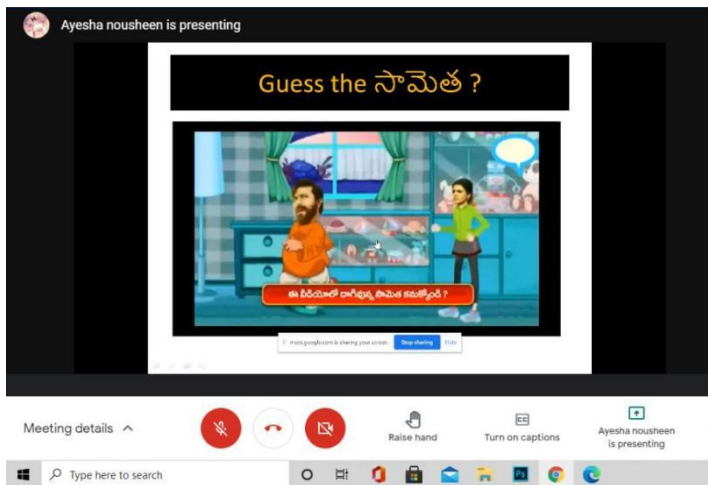
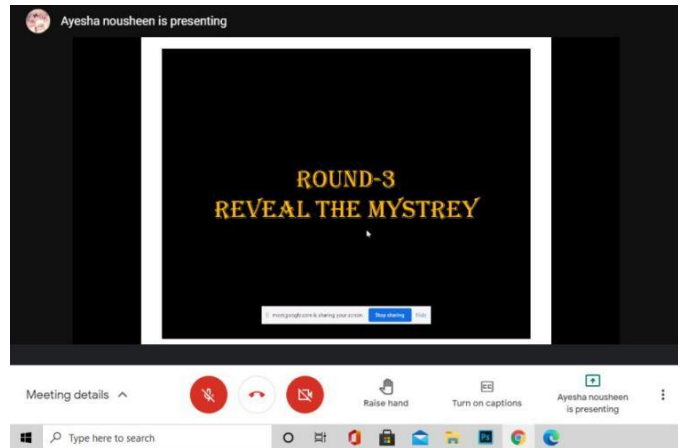
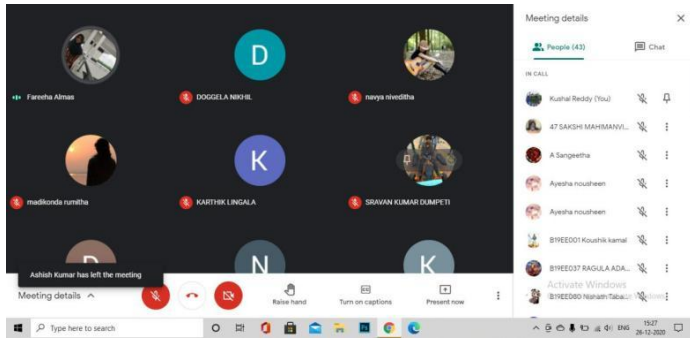
Student Activities:

EVENT:



Name of the Event	Grasp It Up
Date	26/12/2020
Description	The event “Grasp it Up” is non-technical event which consists of 3 rounds. In the first round, few blurred images will be displayed and participants must guess the person/place. In the second round "Guess the word", 3 pictures will be displayed and participants must combine them and form a meaningful word. In third round "Reveal the mystery", few short videos are shown where participant must guess the meaning behind it. This activity will help students to interact in a better way without any fear and spontaneity.
Response	The response from the students was impressive and a total of 87 members are from 1 st 2 nd 3 rd years have attended the association, took active participation and the main objective of organising the activity of cultivating spontaneity in answering the questionnaire was satisfactorily fulfilled.
Organizing Team	<ol style="list-style-type: none"> 1. M. Rumitha (Joint Secretary) 2. Ayesha Nousheen (Executive Member) 3. Fareeha Almas (Spokes Person) 4. Rasagna (Executive Member) 5. Nikhila (Executive Member) 6. A. Sanjay (Executive Member) 7. A. Sai Kiran (Event Manager)

SCREENSHOTS DURING THE SESSION:



SUMSHODHINI 2020 (11-12 December, 2020)

SUMSHODHINI is the annual, two-day science and technology festival of KITS (Warangal) organized by I.S.T.E & Technical club , an independent body of students who organize this event along with many other outreach programs around the year. The symposium is known for hosting a variety of events that include competitions, events, paper presentations as well as workshops organized by the elite student bodies from across eight branches of KITS. Due to the Covid Pandemic outbreak we were unable to conduct the technical fest offline this year, but with the same enthusiasm and determination we have conducted Sumshodhini'20 in Virtual Mode with a theme Virtualis - a fest like never before.

SUMSHIDHINI 2020, the 2-day technical event conducted in our college has been an excellent platform for all the eager tech aspirants for showing out their inner talent and passion towards their respective engineering subject. The department of Electrical and Electronics Engineering has conducted various programs or events for the students and has given good knowledge and a great experience to those who have participated in them. The main attraction of all was "**DESIGN OF ELECTRIC VEHICLE- *The Virtual Practicality***" workshop which has been both fun and educational for those who have participated. This workshop is mainly "FOR THE STUDENTS, BY THE STUDENTS!". It is conducted by the final year students of the EEE department of KITSW as part of SUMSHIDHINI'20. Students who participated in the workshop gained knowledge on how to design the components of an EV (Motor, Motor Controller, Chassis, Battery, Suspension System, etc.) according to the requirement, and also able to fabricate the designed Electric Vehicle. Hence, the workshop brings out actual engineering spirit of Designing and Fabrication along with the acquisition of detailed knowledge on the most happening near future Tech. in blended mode. Along with this, six events such as paper presentation, poster presentation, and electrical expo events were conducted which helped the students to present their ideas and their prototypes. Also, other fun events such as MR. MS. ELECTRON, and TECH-SET-WIN have provided a joyous experience for everyone overall SUMSHODHINI'2020 has been a blast. The best performers in each event were

rewarded for their efforts and hard work. The event would not have been successful without the support of department faculty members, staff and students who have helped in organizing it.

NAME OF THE EVENT	NUMBER OF PARTICIPANTS
Workshop on Design Of Electric Vehicle	134
Paper Presentation	37
Poster Presentation	21
Electrical Expo	18
Mr. Ms. Electron	76
Tech-Set-Win	51



Group Photo with HOD of EEED, Faculty members and workshop Team during SUMSHODHINI'2020

Screenshots during the workshop live-session

EV Battery (rechargeable electric batteries)

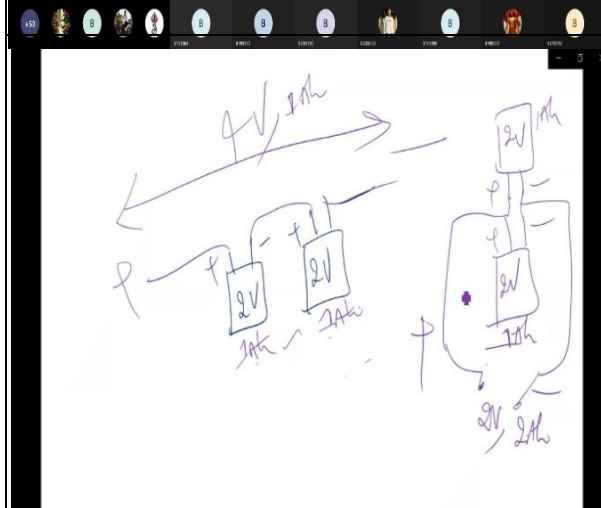
- Is a storage of Energy (electric) for an Electric Vehicles
- Replaces a petrol-tank in a ICE vehicle
- Storage of fuel (petrol) used to drive a vehicle, even taking into account four-times higher drive efficiency of EV w.r.t ICE engine, Battery
- weight 10-12 times higher than filled petrol-tank per km of drive
- size 5 to 6 times higher than petrol tank required per km of drive
- costs is much-much higher than an empty petrol tank
- But cost of petrol per km much higher than electricity costs per km
- Battery has much higher CAPEX, but EV has much lower OPEX

Handwritten notes: EV → 25-30 kWh, 30 kWh

- Consider a battery with a capacity of C to start with
- Over time the capacity decreases due to:
 - Aging or time: Calendar life (typically 1% to 2% of capacity loss per year)
 - Charge-discharge cycles: as batteries are charged / discharged, battery capacity decreases

Handwritten notes: 30-10, //Charging your Accessories//

Factors Effecting Battery Life

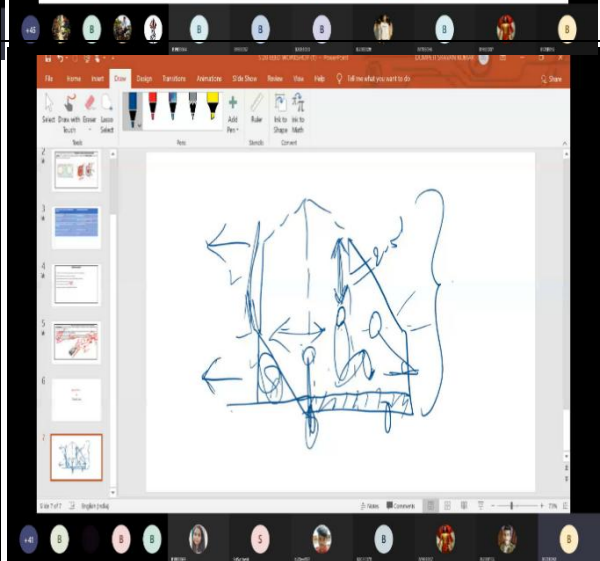


- Consists of: Cathode, Anode and Electrolyte
- Ions are atoms that have lost or gained electrons and thus electrically charged; Ion flow made possible with an electrolyte A Separator which acts as insulator (electrically isolates the electrodes) but allows the movement of ions
- Charging: Electrons (in electrolyte) move through Separator inside the battery towards cathode – creates voltage potential between cathode and anode
- Discharge: Current from positive cathode through external electric circuit (load) to negative anode

Handwritten notes: Separator, Anode/Cathode??

- Working principle is based on **Magnetic locking between stator poles** (formed due to rotating magnetic field) and **rotor poles** (formed by permanent magnets).

Fig.A.2 Pole or 4 Pole surface mounted Rotor





Student Coordinators at Paper Presentation session during SUMSHODHINI'2020

TYPES OF CONVERTERS :-

- AC to DC Converter
- Uncontrolled Converter(Diode Rectifier):-
It converts Alternating current to Pulsating DC.

Quadrant 1 : Diode act as short circuit.
Quadrant 3 : Diode act as open circuit.

CONTENTS

- INTRODUCTION
- UNDERSTANDING SOLAR FLOATING PV
- COMPONENTS OF PV SYSTEM
- PV FLOATING PLANTS OUTLINE
- ADVANTAGES

(15)

- SD ABEE BUNNISA (You)
- Paper presentation >
- Shivani Donthula >
- ASHOK VALABHOJU >

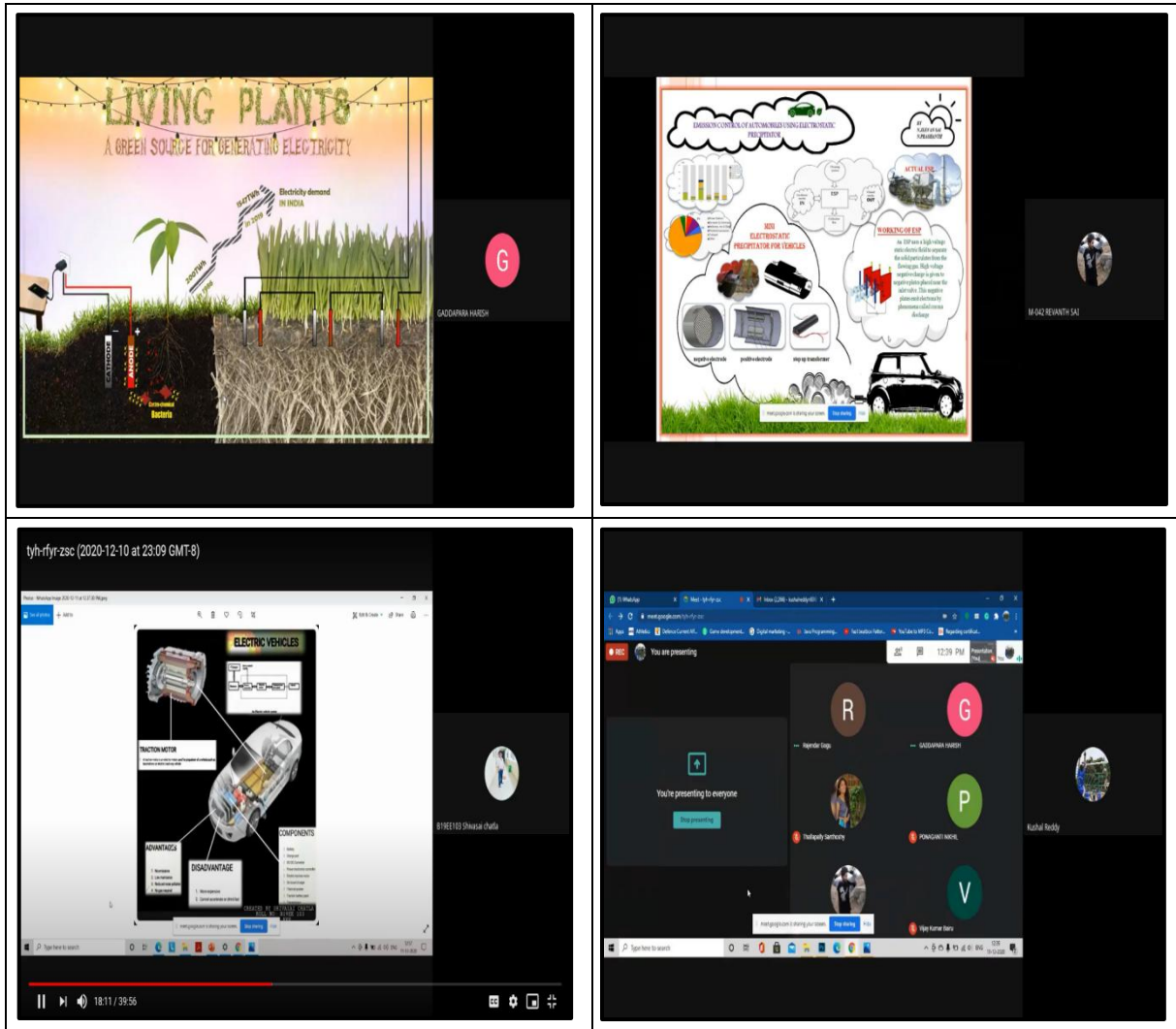
BUTTERFLY-SHAPED TRANSMITTING COIL FOR WPT SYSTEM IN BIOMEDICAL IMPLANT.

RELIABILITY FOR LIVES

Presented by
P.KRISHNA VARDHAN
&
CH.VAISHNAVI

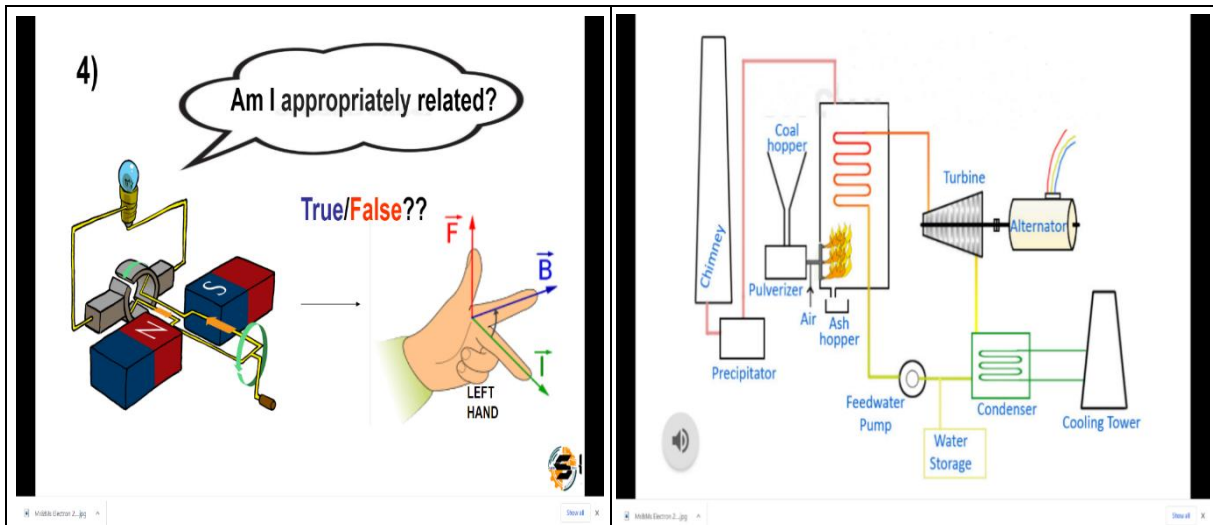
SCHEMATIC DIAGRAM

Screenshots during the paper presentation live-session



Screenshots during the poster presentation live-session

PHOTOGRAPHS DURING Mr-Ms Electron Event





4.) If equivalent capacitance between A and B is ' x ' μF .
Find x , $(2x^2)9$, $\{(2x^2)9+1\}$

The circuit diagram shows a network of capacitors between terminals A and B. A $6 \mu\text{F}$ capacitor is connected between A and B. A $6 \mu\text{F}$ capacitor is connected between A and a central node. A $4 \mu\text{F}$ capacitor is connected between the central node and B. A $3 \mu\text{F}$ capacitor is connected between the central node and another node. A $6 \mu\text{F}$ capacitor is connected between this second node and B.

Activate Windows

6.) The practice of taking someone else's work or ideas and passing them off as one's own

Activate Windows

The logo for SUMS (Sri Jayachandran Memorial Engineering College) is displayed. It consists of the letters 'SUMS' in a stylized, blue, blocky font, arranged in a diamond shape.

Activate Windows

A screenshot of a Zoom meeting interface. The screen shows a grid of video thumbnails for participants. The top left thumbnail shows a man speaking. Other thumbnails are labeled with initials: K, G, A, SD, and others. The interface includes a 'You are presenting' notification and a 'Stop presenting' button.

Screenshots during the Tech-set-win live-session

Student Achievements

Placements ongoing for 2017-21 batch:

S.No.	Roll Number	Name of the student	Company
1	B17EE114	M Praveen Chandra	DXC
2	B17EE001	PULLABOTLA SHASHANK BHARADWAJ	DXC
3	B17EE094	MANTHENA AKHILA	DXC
4	B17EE053	G. Manideep	DXC
5	B17EE016	Md. Arshad Ahmed	DXC
6	B17EE078	N. NEHA	DXC
7	B17EE034	DAMARAJU HARIKA	DXC
8	B17EE070	V MURALIKRISHNA	DXC
9	B18EE138L	K PRAVEEN KUMAR	DXC
10	B17EE092	D SRAVAN KUMAR	DXC
11	B17EE039	KONDA CHANDANA	DXC
12	B17EE068	S SRINITH	DXC
13	B17EE002	KOTHAGATTU MEGHANA	DXC
14	B17EE037	Gujjeti Mrunalika	DXC
15	B17EE117	Sasya Thangallapally	CTS
16	B17EE034	Damaraju Harika	CTS
17	B17EE003	Sai Shankar Kusuma	CTS
18	B17EE068	Sriramula Srinith	CTS
19	B 18EE132L	Akuthota Yashwanth	CTS
20	B17EE026	CH.VAMSHI KRISHNA	TCS-NQT
21	B17EE082	P Chandra Sri	TCS-NQT
22	B17EE089	Laxmi Pranitha	TCS-NQT
23	B17EE071	NIKHIL PONAGANTI	TCS-NQT
24	B17EE108	Akhila Sripathi	TCS-NQT
25	B17EE002	K. Meghana	TCS-NQT
26	B17EE057	Valusa Manideep	TCS-NQT
27	B17EE068	S SRINITH	TCS-NQT
28	B17EE081	Prudhvi Teja	TCS-NQT
29	B17EE003	Sai shankar	TCS-NQT
30	18EE122L	Vijay Sai Gopiseti	MIND TREE
31	B17EE013	Saba Tanveer	MIND TREE
32	B17EE019	Sanjudha Kandunuri	MIND TREE
33	B17EE087	Rayarakula Vishnu	MIND TREE
34	B17EE003	KUSUMA SAI SHANKAR	Wipro Talent Next
35	B18EE126L	PRAVALIKA S	Trimind Technologies

M.Tech Placements:

1	M19PE006	Pachika Sravya	GE
2	M19PE003	Jukanti Rishith	GE
3	M19PE004	G.Sai Sowjanya	TCS-NQT

Section wise Semester Toppers list:**(Toppers of exams of even semester A.Y. 2020-21)**

S. No.	Name of the Student	Roll No	Semester	SGPA
1.	SABA TANVEER	B17EE013	VII	9.71
2.	KOTHAGATTU MEGHANA	B17EE002	VII	9.71
3.	DAMARAJU HARIKA	B17EE034	VII	9.71
4.	DUMPETI SRAVAN KUMAR	B17EE092	VII	9.71
5.	ALUGURI AKHIL	B19EE122L	V	9.84
6.	POSHALA KRISHNA VARDHAN	B18EE057	V	9.84
7.	SATHVIKA MAMIDI	B18EE002	V	9.84
8.	KUSUMA RASAGNA	B18EE085	V	9.84
9.	VEMUNURI SUMANTH	B19EE124L	V	9.84
10.	DEVULAPELLY VISHAL	B20EE127L	III	9.81
11.	MACHERLA RISHIKA	B20EE002	I	9.62

Roll of honor of A.Y. 2019-2020:

S.No.	Name of the Student	Roll No	CGPA
1.	KOTHAGATTU MEGHANA	B17EE002	10.00
2.	THOOTIKA SANTHOSH KUMAR	B17EE010	10.00

*Calendar of events of EEEA Student Activities
for even semester of A.Y. 2020-21:*

S No.	NAME of the ACTIVITY	DATE
1.	Interaction with Seniors-1	13th Feb 2021
2.	Placement Talk	13th Feb 2021
3.	Interaction with Seniors-2	20th Feb 2021
4.	Introduction to Nanotechnology and its Application	21st Feb 2021
5.	Drawing Contest	27thFeb-2ndMar 2021
6.	Women's Day Contest	7th-10thMar 2021
7.	Pre-Placement Drive-1	13th- 15thMar 2021
8.	Pre-Placement Drive-2	4th Mar 2021
9.	EEEA Body Meeting	15th Mar 2021