

INNOVATIONS BY THE FACULTY IN TEACHING AND LEARNING

In order to make the teaching learning process interesting and interactive, a lot of measures taken by the faculty members. The common practices undertaken are listed below:



Innovation in Teaching & Learning

Live Demonstration of Equipment: Solar Panels, Electrical Machines, Digital Trainer Kits and other equipment and their functions are demonstrated

Video-Based Presentation: Application videos of the topics prepared by the faculty members are shown, based on which students get a real-life exposure. Concepts hard to visualize are taught using Animations/ videos.

Role Play and Group Discussion: Active peer learning is encouraged by making the students to participate in role plays, group discussion and other such activities

Online Assessment: Online quiz through Kahoot and Teams are conducted in the class to induce their thinking skills and motivates them to participate.


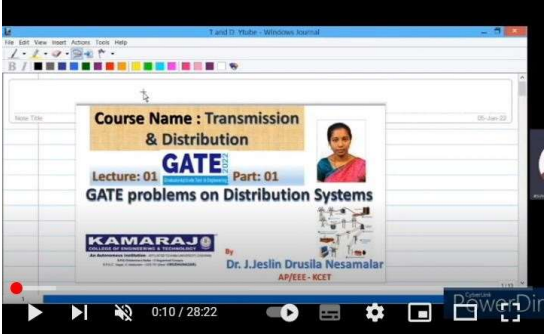
Models and Charts: Students are encouraged to prepare models and charts to ensure their learning of concepts and its practical applications.

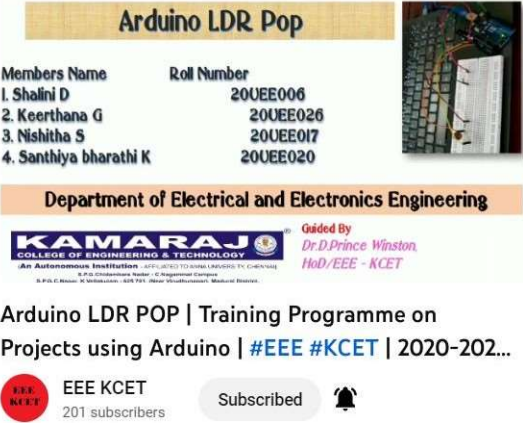
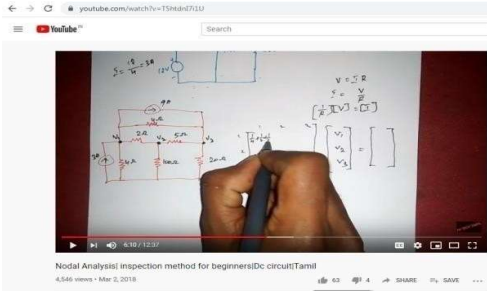
Peer Learning: Students are divided into groups for and given topics from GATE questions for own learning to encourage sharing of information and deeper understanding of the topics.

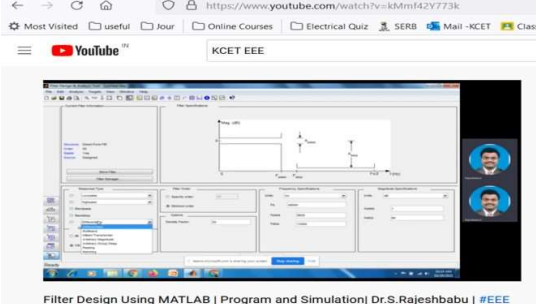
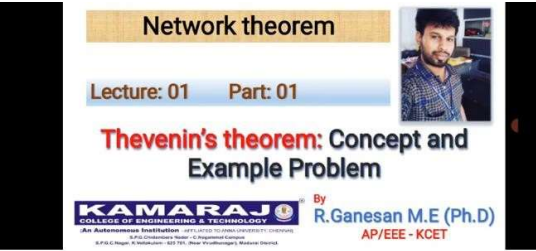
Project based Learning: Students are given innovative assignment in the form of projects to inculcate the practical exposure and the knowledge on the electrical components.

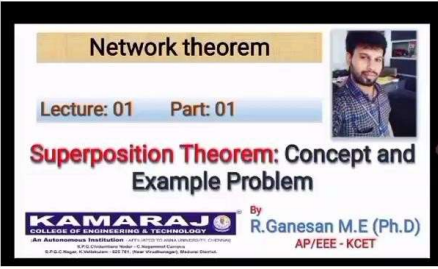


Simulation Tools: Various simulation tools such as MATLAB, NI Multisim are used to explain the operation of electrical, electronic circuits and other simulations.

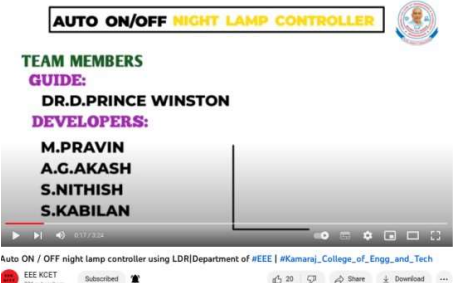

Digital White Board: Faculty members used the digital notice board for the online teaching during pandemic period.

Faculty Name	Topic	Academic Year	Tool used	Purpose	Sample Proof
Er. D. Mariappan	Basic Electrical and Electronics Engineering	2019-2020 Even Sem	Video lecture	Easy learning of StarDelta Conversions in Transformer	 <p data-bbox="1325 586 1971 618">https://www.youtube.com/watch?v=MHhGnCDhLCo</p>
Dr. J. Jeslin Drusila Nesamalar	GATE Problems on Distributed Systems	2020-2021 Even Sem	Video lecture	To solve real GATE problems relevant to Distributed Systems	 <p data-bbox="1335 1000 1959 1032">https://www.youtube.com/watch?v=XN2e3_3ep0w</p>

Faculty Name	Topic	Academic Year	Tool used	Purpose	Sample Proof
<p align="center">Dr. D. Prince Winston</p>	<p align="center">Arduino LDR POP</p>	<p align="center">2021-22 Even Sem</p>	<p align="center">Video lecture</p>	<p align="center">Training Programme on Projects using Arduino</p>	 <p align="center"> https://www.youtube.com/watch?v=6Sm-3icVAKY </p>
<p align="center">Er. D. Mariappan</p>	<p align="center">Electric Circuit Theory</p>	<p align="center">2018-2019 Odd Sem</p>	<p align="center">Video lecture</p>	<p align="center">Nodal Analysis inspection method for beginners Dc circuit Tamil</p>	 <p align="center"> https://www.youtube.com/watch?v=T5htdnI7i1U </p>

Faculty Name	Topic	Academic Year	Tool used	Purpose	Sample Proof
Dr. S. RajeshBabu	Filter Design	2021-2022 Odd Sem	Video lecture	Filter Design Using MATLAB Program and Simulation	 <p>Filter Design Using MATLAB Program and Simulation Dr.S.Rajeshbabu #EEE</p> <p>https://www.youtube.com/watch?v=kMmf42Y773k</p>
Mr. R. Ganesan	Thevenin's theorem	2021-2022 Odd Sem	Video lecture	Concept and Example Problem DC network	 <p>Thevenin's theorem: Concept and Example Problem DC network Mr.R.Ganesan AP #EEE #KCET </p> <p>EEE KCET 201 subscribers</p> <p>https://www.youtube.com/watch?v=DDGyc9Aru-w</p>

Faculty Name	Topic	Academic Year	Tool used	Purpose	Sample Proof
Mr.R.Ganesan	Superposition Theorem	2021-2022 Odd Sem	Video lecture	Concept with Simple Problem - DC Network	 <p>Superposition Theorem : Concept with Simple Problem DC Network Mr.R.Ganesan AP #EEE #KCET</p> <p>https://www.youtube.com/watch?v=wXtIO2n1pKM</p>
Dr. M. Sudalaimani	Arduino	2021-2022 Odd Sem	Video Lecture	Basics of Arduino - Introduction	 <p>Basics of Arduino - Introduction Dr.M.Sudalaimani #EEE #KCET</p> <p>https://youtu.be/NVVhtdaI6ZQ</p>
Dr. B. Gurukarthik Babu & Project students	Study of bifacial solarPV module - Performance enhancement	2021-22 Even Sem	Video Lectures/ Demo	Bifacial solar PV module incorporated with Industrial Effluent	 <p>07 Performance enhancement of bifacial solar PV module incorporated with Industrial Effluent #EEE</p> <p>53 views Premiered on 7 Jun 2022 Project Title: Performance enhancement of bifacial solar PV module incorporated with Industrial Effluent as reflector</p> <p>Roll No. Register No. Name of the Student 18UEE202 10241810019 K.Harish Kumar 18UEE240 10241810022 M.Ashwin Kumar 18UEE241 10241810034 P.Priya Guide Name and Designation Dr.B.Gurukarthik Babu, AP,EEE</p> <p>https://www.youtube.com/watch?v=OwSojF7fyac</p>

Faculty Name	Topic	Academic Year	Tool used	Purpose	Sample Proof
Dr. D.Prince Winston	Automation	2020-2021 Even	Video Lectures/ Demo	Auto ON / OFF nightlamp controller using LDR	 <p>AUTO ON/OFF NIGHT LAMP CONTROLLER</p> <p>TEAM MEMBERS GUIDE: DR.D.PRINCE WINSTON DEVELOPERS: M.PRAVIN A.G.AKASH S.NITHISH S.KABILAN</p> <p>Auto ON / OFF night lamp controller using LDR Department of #EEE #Kamaraj_College_of_Engg_and_Tech</p> <p>https://www.youtube.com/watch?v=6y2E4YHCz3E</p>
K.Ganesan	Circuit Theory	2022-2023 Odd Sem	Video Lectures	Kirchhoff's Current Law	<p style="text-align: center;">Kirchhoff's Current Law</p> <hr/> <p>Example 3: For the circuit in Fig., find voltages v_0 and i_0.</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> $6 = i_0 + \frac{v_0}{4} + i_1$ $= \frac{v_0}{2} + \frac{v_0}{4} + \frac{v_0}{8}$ </div> <div style="margin-right: 20px;">  </div> <div> <p><i>dim's law</i></p> $i_0 = \frac{v_1 - v_0}{2} = \frac{v_0}{2}$ $i_1 = \frac{v_1}{8}$ </div> </div> <p style="text-align: center;">$v_0 = 0$</p> <hr/> <p style="text-align: center;">https://www.youtube.com/watch?v=3hpNXGLIzV</p> <p style="text-align: center;"><u>W</u></p>

Sample Work available for peer review and critique

General public and department students witnessed the online lectures of the faculty members with positive critiques related to the lectures.


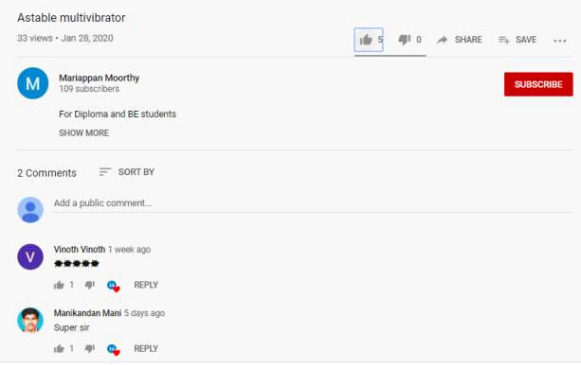


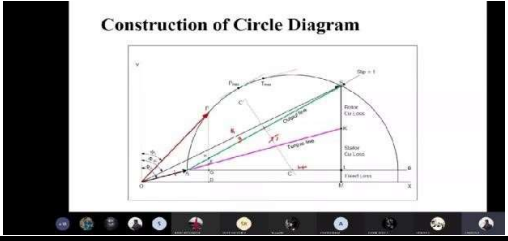
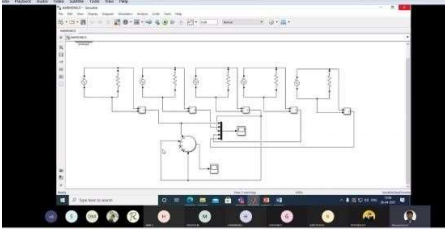
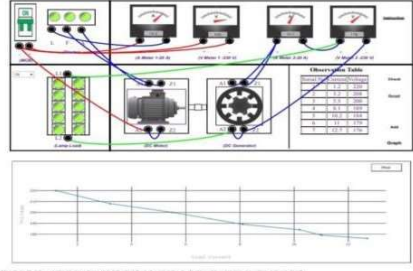
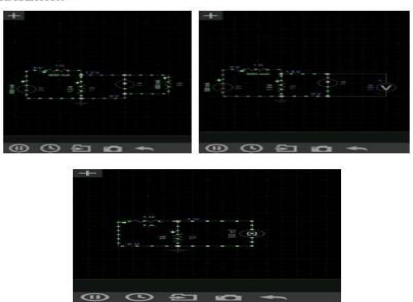
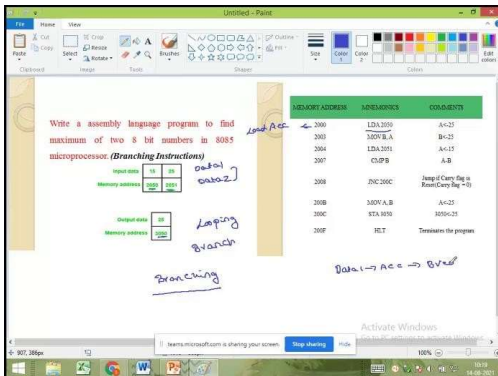
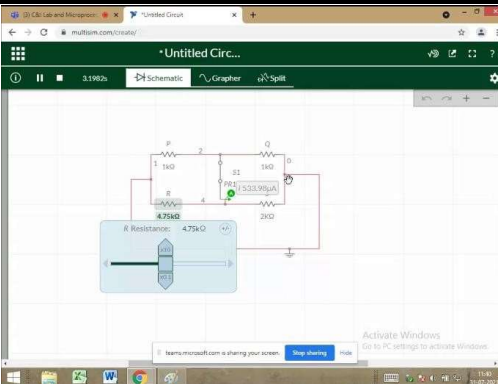
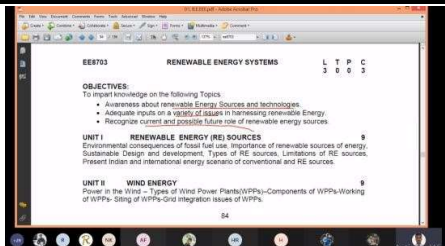

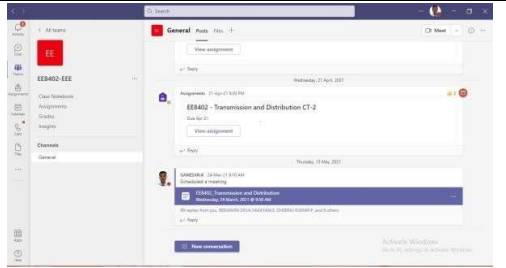
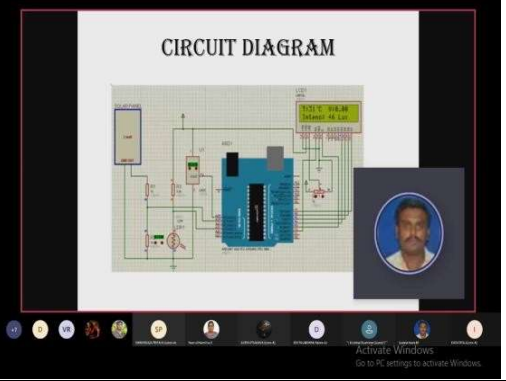
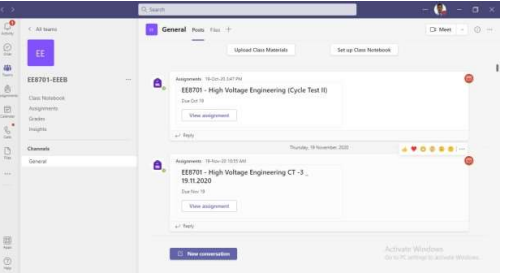
Staff Name	Topic	Pictorial view	Critique
<p align="center">Er. D. Mariappan</p>	<p align="center">Series and Parallel connection of resistors</p>		
<p align="center">Er. D. Mariappan</p>	<p align="center">Astable multi vibrator</p>		


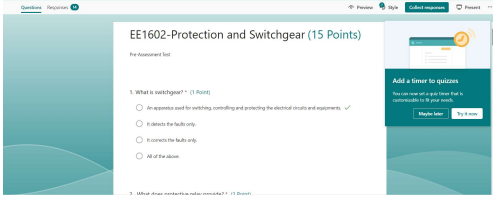
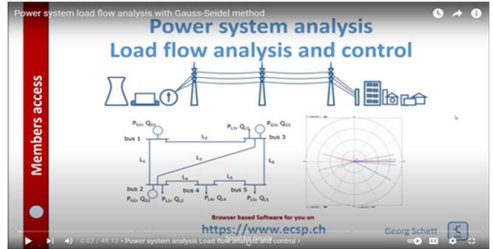

Table: Sample Work available for peer review and critique

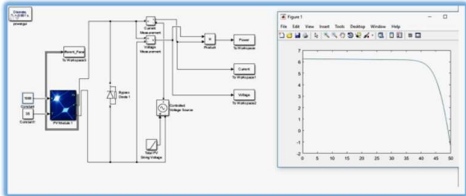
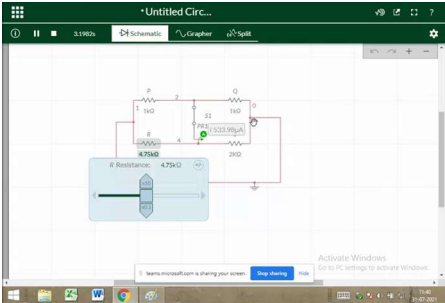

Student learning, usage of ICT, instruction delivery, instructional methods, assessment, evaluation etc., (10)



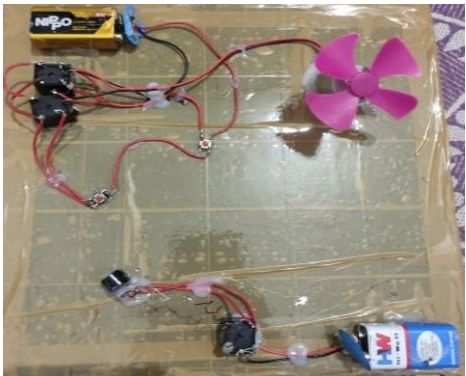
S. No.	Name of the Faculty	Subject code & name	Academic Year	ICT tool / ABL	Purpose	Remarks
1.	Mr.R.Ganesan AP/EEE	EE8401 Electrical Machines II	2021-2022 Even Sem	PPT Presentation	Content Delivery	
2.	Dr.D.Prince Winston Prof/EEE, Mr.R.Ganesan AP/EEE	EE8006 PowerQuality	2021-2022 Even Sem	MATLAB Software	Content Delivery	
3.	Mr.R.Ganesan AP/EEE	EE8311 Electrical Machines I Lab	2021-2022 Odd Sem	IIT VirtualLab	Content Delivery	
4.	Mr. D. Mariappan, AP/EEE	EE1281 Electric Circuits Lab	2019-2020 Even Sem	Simulation from EveryCircuit	For experim entationas lockdown imposed due to covid	

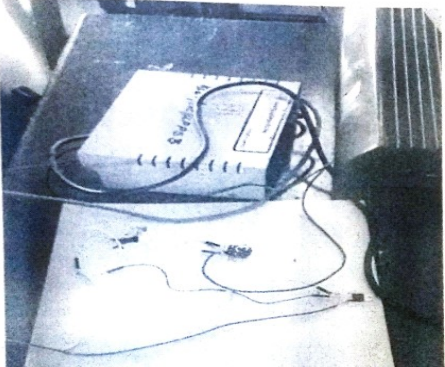
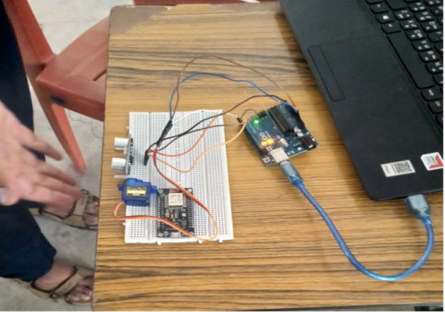

S. No.	Name of the Faculty	Subject code & name	Academic Year	ICT tool / ABL	Purpose	Remarks																											
5.	Dr.M.Sudalaimani, AP/EEE	EE8551 Microprocessor & Microcontroller	2019-2020 Odd Sem	White Board & Simulation	Content Delivery	 <p>The screenshot shows a whiteboard simulation interface. On the left, there is handwritten text: "Write a assembly language program to find maximum of two 8 bit numbers in 8085 microprocessor. (Branching Instructions)". Below this, there are diagrams for "Memory address" and "Instruction Memory address". In the center, there is a table with columns "MEMORY ADDRESS", "MEMORY WORDS", and "DATAWORD". The table contains the following data:</p> <table border="1"> <thead> <tr> <th>MEMORY ADDRESS</th> <th>MEMORY WORDS</th> <th>DATAWORD</th> </tr> </thead> <tbody> <tr><td>2000</td><td>LDA 2000</td><td>A ← 20</td></tr> <tr><td>2001</td><td>MOV B, A</td><td>B ← 20</td></tr> <tr><td>2004</td><td>LDA 2001</td><td>A ← 15</td></tr> <tr><td>2007</td><td>CMP B</td><td>A ← B</td></tr> <tr><td>2008</td><td>JNC 200C</td><td>Jump if Carry flag is Reset (Carry flag = 0)</td></tr> <tr><td>200B</td><td>MOV A, B</td><td>A ← 25</td></tr> <tr><td>200C</td><td>STA 3010</td><td>3010 ← 25</td></tr> <tr><td>200F</td><td>HLT</td><td>Terminate the program</td></tr> </tbody> </table> <p>Handwritten notes include "Data ← A ← B", "Branching", and "Looping".</p>	MEMORY ADDRESS	MEMORY WORDS	DATAWORD	2000	LDA 2000	A ← 20	2001	MOV B, A	B ← 20	2004	LDA 2001	A ← 15	2007	CMP B	A ← B	2008	JNC 200C	Jump if Carry flag is Reset (Carry flag = 0)	200B	MOV A, B	A ← 25	200C	STA 3010	3010 ← 25	200F	HLT	Terminate the program
MEMORY ADDRESS	MEMORY WORDS	DATAWORD																															
2000	LDA 2000	A ← 20																															
2001	MOV B, A	B ← 20																															
2004	LDA 2001	A ← 15																															
2007	CMP B	A ← B																															
2008	JNC 200C	Jump if Carry flag is Reset (Carry flag = 0)																															
200B	MOV A, B	A ← 25																															
200C	STA 3010	3010 ← 25																															
200F	HLT	Terminate the program																															
6.	Dr.M.Sudalaimani, AP/EEE	EE8511 Control and Instrumentation Lab	2019-2020 Odd Sem	White Board & Simulation	Content Delivery	 <p>The screenshot shows a circuit simulation interface. It displays a schematic diagram with several resistors and a potentiometer. The resistors are labeled with values: 1kΩ, 1kΩ, 1kΩ, 4.75kΩ, and 2kΩ. The potentiometer is labeled "R Resistor: 4.75kΩ". The circuit is connected to a power source and ground.</p>																											
7.	K.Ganesan, AP/EEE	EE8703- Renewable Energy Systems	2019-2020 Odd Sem	MS Teams	Content Delivery	 <p>The screenshot shows a presentation slide titled "RENEWABLE ENERGY SYSTEMS". The slide includes the following text:</p> <p>EE8703 RENEWABLE ENERGY SYSTEMS L T P C 3 0 0 2</p> <p>OBJECTIVES: To impart knowledge on the following Topics:</p> <ul style="list-style-type: none"> Awareness about renewable Energy Sources and technologies. Adequate inputs on a variety of issues in harnessing renewable Energy. Recognize current and possible future role of renewable energy sources. <p>UNIT I RENEWABLE ENERGY (RE) SOURCES</p> <p>Environmental consequences of fossil fuel use, Importance of renewable sources of energy Sustainable Design and development, Types of RE sources, Limitations of RE sources, Present trends and international energy scenario of conventional and RE sources.</p> <p>UNIT II WIND ENERGY</p> <p>Power in the Wind – Types of Wind Power Plants(WPPs)–Components of WPPs–Working of WPPs– Siting of WPPs–Grid integration issues of WPPs.</p> <p>84</p>																											





S. No.	Name of the Faculty	Subject code& name	Academic Year	ICT tool / ABL	Purpose	Remarks
8.	T. Hari Prasath, AP/EEE	GE8701- Disaster Management	2021-22 Odd Sem	MS Teams	Content Delivery	
9.	K.Ganesan, AP/EEE	EE8402- Transmissionand Distribution	2019-20 Even Sem	MS Teams	Content Delivery	
10.	Dr.M.Sudalamani AP/EEE	EE8811 Project Work	2021-22 Even Sem	Teams, Presentation, Models	ProjectViva	
11.	K.Ganesan, AP/EEE	EE8701-High Volatge Engineering	2019-20 Odd Sem	MS Teams	Assessment	

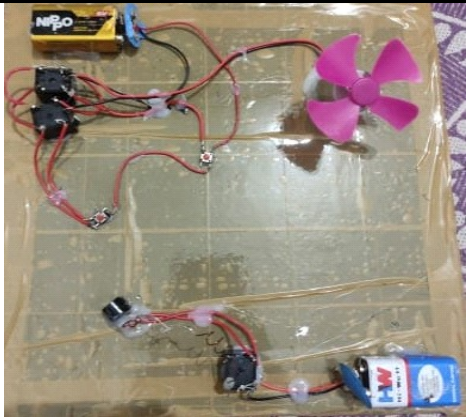
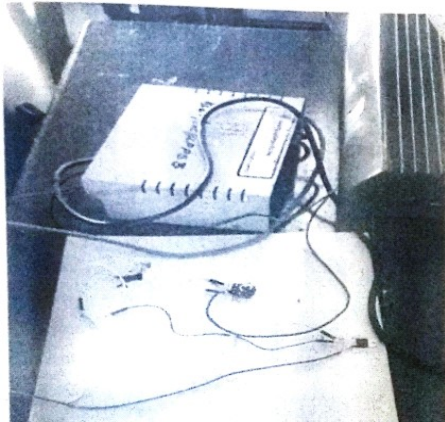
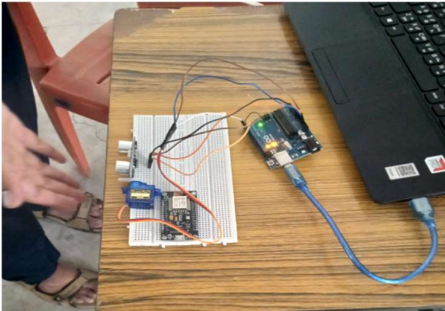
S. No.	Name of the Faculty	Subject code& name	Academic Year	ICT tool / ABL	Purpose	Remarks
12.	V.Chandra AP/EEE	EE1306- Power Plant Engineering	2021-22 Odd Sem	MS Teams, Digital Writing Pad,Kahoot	Assessment and Evaluation	
13.	K.Ganesan AP/EE	EE1602-Protection and Switchgear	2022-2023 Even Sem	MS Teams	Assessment and Evaluation	
14.	R.Ganesan AP/ EEE	EE2255 Power System Analysis	2021-22 Odd Sem	ICT tool	Content Delivery	
15.	R.Ganesan AP/ EEE	EE1501 Power System Analysis	2022-2023 Odd Sem	ICT tool	Content Delivery	

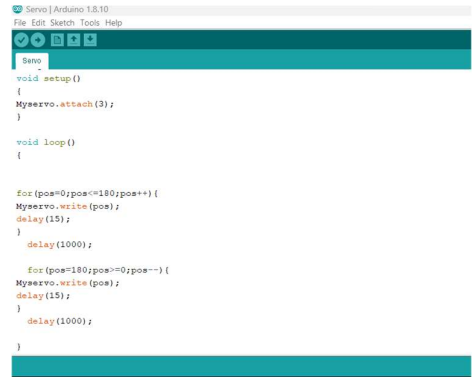

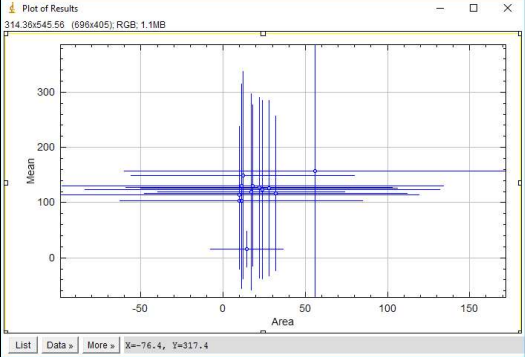
S. No.	Name of the Faculty	Subject code& name	Academic Year	ICT tool / ABL	Purpose	Remarks
16.	Dr.D.Prince Winston Prof/EEE	EE1603 Renewable Energy Systems	2022-23 Odd Sem	MATLAB Software	Content Delivery	 A screenshot of a MATLAB Simulink model. On the left, there is a block diagram of a power system with a solar panel, a DC-DC converter, and an inverter. On the right, a graph window shows a plot of power or current over time, with a curve that starts at a high value and decays towards zero.
17.	K.Ganesan	EE2206 Circuit Theory lab	2022-2023 Even Sem	NI Multisim	Content Delivery	 A screenshot of the NI Multisim software interface. It shows a circuit simulation with a voltage source, resistors, and a current source. A graph window is open, displaying a plot of current versus time. The interface includes a top menu bar and a bottom taskbar with various application icons.
18.	T.Hari Prasath	MG8591 Principles of Management	2022-2023 Even Sem	Mock Interview Through Teams	Process of Interview	 A screenshot of a Microsoft Teams video call. Two participants are visible in separate windows at the top. Below them is a large video area showing a person's face. At the bottom of the screen, there is a circular icon with the letters 'SS' inside, likely representing a screen share or a specific feature within the call.

S. No.	Name of the Faculty	Subject code & name	Academic Year	ICT tool / ABL	Purpose	Remarks
19.	K.Ganesan	Principles of Engineering	2021-22 Even Sem	Live Demo	Solar Photovoltaic Power Generation	 <p>Chittoor, Tamil Nadu, India MXC7-WVM, Chittoor, Tamil Nadu 625701, India Lat 9.673579° Long 77.964647° 26/05/22 01:44 PM</p>
20.	K.Ganesan	Special Electric Machines	2021-22 Odd Sem	Machine Stampings	Universal Motor	 <p>Chittoor, Tamil Nadu, India MXF7-9XG, Chittoor, Tamil Nadu 625701, India Lat 9.673372° Long 77.964704° 09/11/22 10:04 AM GMT +05:30</p>
21.	K.Ganesan	Protection and Switchgear	2022-2023 Even Sem	Project Based Learning	Working Principles of Relay	

S. No.	Name of the Faculty	Subject code& name	Academic Year	ICT tool / ABL	Purpose	Remarks
22.	S.Jegan	Linear Integrated Circuits and Applications	2022-2023 Even Sem	Project Based Learning	Working Principles of Regulator ICs	
23.	Dr. A. Rajavel	Microprocessors and Microcontrollers	2022-23 (Odd Sem)	Mini-Project Contest	Content Delivery	
24.	Dr.A. Rajavel	Microprocessors and Microcontrollers	2022-23 (Odd Sem)	Arduino IDE	Content Delivery	

S. No.	Name of the Faculty	Subject code& name	Academic Year	ICT tool / ABL	Purpose	Remarks
25.	S.Ramesh Prabhu	Design Thinking	2022-2023 Odd Sem	Activity Based Learning	Innovation Contest	 
19.	K.Ganesan	Principles of Engineering	2021-22 Even Sem	Live Demo	Solar Photovoltaic Power Generation	
20.	K.Ganesan	Special Electric Machines	2021-22 Odd Sem	Machine Stampings	Universal Motor	

S. No.	Name of the Faculty	Subject code& name	Academic Year	ICT tool / ABL	Purpose	Remarks
21.	K.Ganesan	Protection and Switchgear	2022-2023 Even Sem	Project Based Learning	Working Principles of Relay	
22.	S.Jegan	Linear Integrated Circuits and Applications	2022-2023 Even Sem	Project Based Learning	Working Principles of Regulator ICs	
23.	Dr. A. Rajavel	Microprocessors and Microcontrollers	2022-23 (Odd Sem)	Mini-Project Contest	Content Delivery	

S. No.	Name of the Faculty	Subject code& name	Academic Year	ICT tool / ABL	Purpose	Remarks
24.	Dr.A. Rajavel	Microprocessors and Microcontrollers	2022-23 (Odd Sem)	Arduino IDE	Content Delivery	 <pre> Servo servo; void setup() { servo.attach(3); } void loop() { for (pos=0;pos<=180;pos++) { servo.write(pos); delay(15); } delay(1000); for (pos=180;pos>=0;pos--) { servo.write(pos); delay(15); } delay(1000); } </pre>
25.	S.Ramesh Prabhu	Design Thinking	2022-2023 Odd Sem	Activity Based Learning	Innovation Contest	
26.	B.Gurukarthik Babu, AP/EEE	GE8073- Fundamentals of Nano Science	2022-2023 Even Semester	Measurement of particle size using Image J software	For experimentation and Content Delivery	 <p>Plot of Results 314.38x545.58 (696x405); RGB, 1.1MB</p> <p>Mean vs Area plot showing a peak at X=76.4, Y=317.4.</p>

PRODUCT DEVELOPMENT

Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2019-2023	Portable ball throwing machine		√		
2019-2023	Performance Investigation of Bifacial Solar Photovoltaic Module Installed with Single Axis Tracking System			√	
2019-2023	Fabrication of Natural dye extractor		√		
2019-2023	Two phase to three phase converter for pumping in Agriculture	√			
2019-2023	Experimental Investigation of Floating type Solar Photovoltaic Panels in various water bodies			√	
2019-2023	Smart Battery management system using IOT				√
2019-2023	Experimental Investigation of Building Integrated Solar Photovoltaic Array with Different Interconnection Patterns			√	
2019-2023	Performance improvement of various balance of systems in solar photovoltaic power plant			√	
2019-2023	Addressing power quality issues in grid connected solar PV system using machine learning algorithm			√	
2018-2022	Regulated Power supply for high power applications	√			
2018-2022	Novel method for water level controller using 555 timer		√		
2018-2022	IOT based fault detection and protection of load in distribution				√
2018-2022	A review of harmonic analysis and mitigation techniques using filters	√			

Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2018-2022	Performance analysis for harmonics loss using hybrid renewable energy systems			√	
2018-2022	IOT based Industrial safety and security monitoring using web application				√
2018-2022	Performance enhancement of bifacial solar PV module incorporated with Industrial Effluent as reflector			√	
2018-2022	Smart pulse meter for visually impaired patients	√			
2018-2022	Comparative study of thermal analysis on Lithium Ion and Lithium Ferro phosphate battery			√	
2018-2022	Monitoring and analysis of performance parameters of bifacial solar PV module with different reflective surfaces			√	
2018-2022	Analysis of Solar power generation using arduino based solar tracker			√	
2018-2022	Improvement of power generation in solar PV power plant			√	
2018-2022	Industrial safety parameter monitoring using IOT				√
2018-2022	IOT based smart shopping trolley with mobile cart application				√
2018-2022	E-Vehicle quality oriented monitoring and controlling system using IoT				√
2018-2022	IOT based smart energy meter				√
2017-2021	Development of Novel Battery Balancing Kit with Zero Charging Loss for Electric Vehicle Applications			√	

Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2017-2021	Design And Analysis Of Efficient Charging System For Lead-Acid Batteries			√	
2017-2021	Design of charger controller using closed loop buck controller	√			
2017-2021	Iot Based Intelligent Home				√
2017-2021	Development of Load Management Through Local Consumer Demand		√		
2017-2021	IoT Based Automation Using Raspberry Pi				√
2017-2021	Arduino Based Helmet For Coal Mine Worker				√
2017-2021	Iot Based Field Monitoring And Smart Agriculture System				√
2017-2021	Commercial security system based on arduino using gsm.				√
2017-2021	Industrial Energy Audit For Flour Mill Plant				√
2017-2021	IOT Based Smart Energy Meter				√
2017-2021	Automatic Spraying of Mixture in Bale (cotton) Plucker Machine		√		
2017-2021	Iot Based Fall Detection System For Elderly/Physically Challenged People				√
2017-2021	Solar PV based grid connected Dc microgrid for primary schools			√	

Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2017-2021	Smart Prosthetic Hand	√			
2017-2021	A Deep learning approach for Power prediction and State-of-Charge estimation in battery operated Electric Vehicles			√	
2017-2021	Machine learning based condition monitoring of transmission line using iot				√
2017-2021	Machine Learning based Condition Monitoring of Three Phase Induction Motor		√		
2017-2021	Artificial Intelligence Based Prediction Of Driver's Drowsiness		√		
2017-2021	Enhancement Of Palatable Water Production In Pv/T System Using Industrial Sludges And Nautical Husks			√	
2017-2021	Automatic Parking System in E-Vehicle		√		
2017-2021	Drunk & Drive Detection With Automatic Engine Locking System		√		
2017-2021	Performance Enhancement Of Bifacial Solar Module			√	
2017-2021	Iot Based Solar Pv Parameters Monitoring System				√
2017-2021	Fuzzy Based Weighted Min-Max Fair Charge Allocation For Electric Vehicles		√		
2017-2021	Microcontroller Based Home Automation System Using Rfid	√			
2017-2021	Automatic Hand Sanitizer Dispenser		√		

Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2017-2021	Rfid Based Automatic Temperature Monitoring System		√		
2017-2021	Real Time Iot Based Energy Meter and Fault Identification System				√
2017-2021	Adaptive state of charge estimator for rechargeable batteries using microcontroller.	√			
2017-2021	Smart Irrigation using IoT				√
2017-2021	Asafoetida dough press		√		
2017-2021	Rf Based Speed Control System For Electric Vehicle		√		
2016-2020	Design and development of high gain dc - dc boost converter for solar pv applications	√			
2016-2020	Development of simo dc-dc converter for pv application	√			
2016-2020	Performance improvement of multi-level inverter used for solar pv applications	√			
2016-2020	Four quadrant operation of dc motor remotely controlled by android applications	√			
2016-2020	Carbon di oxide reduction machine			√	
2016-2020	Measurement of energy in domestic sector using cloud based iot				√
2016-2020	Monitoring the parameters of the motor using iot				√

Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2016-2020	Wireless power transmission using tesla coil and solar cells			√	
2016-2020	Improved battery management module for estimating charge capacity for house-hold inverter	√			
2016-2020	Enhanced safety and security system using gsm in electric vehicle		√		
2016-2020	IoT based monitoring of transformer using data loggers				√
2016-2020	Improving healthcare using smart medbox for medicine reminder and monitoring system		√		
2016-2020	Smart attendance system using rf id and open cam				√
2016-2020	Experimental investigation on png		√		
2016-2020	Wireless system for monitoring the physiological parameters of the patient.		√		
2016-2020	Reactive power compensation using statcom	√			
2016-2020	Microcontroller based home lpg safety system		√		
2016-2020	Smart sensor grid based irrigation system	√			
2016-2020	Fault acknowledgement system for ups using iot				√
2016-2020	Automatic railway gate monitoring system using gsm		√		

Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2016-2020	Soldier health care monitoring and tracking system using iot				√
2016-2020	Design of smart plug for home management system		√		
2016-2020	Solar based charging station for electric vehicle		√		
2016-2020	Design and fabrication of fireworks fuse dipping machine	√			
2016-2020	Autointensity control of street light using arduino				√
2016-2020	Iot based smart energy meter				√
2016-2020	Design of implementation of self-healing remote power lines		√		
2016-2020	Wireless throttle system for electric vehicles		√		
2016-2020	Design of low cost electric vehicle for industrial applications		√		
2016-2020	Renewable energy based atmospheric water harvester for the production of palatable water			√	
2016-2020	Colour sorting using arduino				√
2015-2019	Design Of Petro Electric Bikes		√		
2015-2019	Design And Analysis Of Highway Wind Power Generation Using Vertical Axis Wind Turbine			√	




Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2015-2019	Development Of Multitest System For Solar PV System			√	
2015-2019	Three Phase Fault Analysis In Distribution Line		√		
2015-2019	Adroit Speculum For Institutional Updates (Smart Mirror)	√			
2015-2019	Induction Motor Condition Monitoring And Controlling Based On Iot				√
2015-2019	Miniature Windmill Based Micro Grid System	√			
2015-2019	Real Time Transformer Health Monitoring System Using GSM And IOT				√
2015-2019	Power Utilization For Train Compartments Using Micro Wind Mill And Solar System			√	
2015-2019	Improvising The Efficiency Of Single Slope Solar Still Using Forced Convection Assisted With Thermally Conductive Nano Ferric Oxide			√	
2015-2019	Enhancement Of A Pv/T Integrated Single Slope Solar Desalination Still Productivity Using Water Film Cooling Overglass Cover And Hybrid Natural Fibre Composite Insulation			√	
2015-2019	Design Of Micro-Inverter For Solar Panel	√			
2015-2019	Design Of Smart Irrigation And Secure System		√		
2015-2019	Time Based Single Axis Solar Tracking System Using Arduino Enabled With Sleep Mode			√	
2015-2019	Electronic Toll Collection System Using Rfid				√

Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2015-2019	Artificial Intelligence For Unearthing Yarn Breakage		√		
2015-2019	Impact Of Hybrid Harmonic Mitigation Technique On The Response Of DC/ AC Converter	√			
2015-2019	Development Of Energy Efficiency Of Electrical Appliances		√		
2015-2019	Low Cost Cops Feeder For Spinning Mills Autoconer		√		
2015-2019	Design Of Lable Numbering Machine	√			
2015-2019	CPU Offset Ink Key Control Using Labview		√		
2015-2019	Overhead Transmissiom Line Inspection Using A Drone (Atom V2)		√		
2015-2019	Priority Based Load Switching For Energy Conservation		√		
2015-2019	Portable Camera Based Assistive Text And Product Label Reading For Blind Persons	√			
2015-2019	Monitoring And Dissipation Of Paper In Spiral Core Rolling Machine		√		
2015-2019	MPPT Based Solar Charge Controller			√	
2015-2019	Coir Field Rover	√			
2015-2019	Load Disaggregation And Demand Response Management In Residential Sector		√		

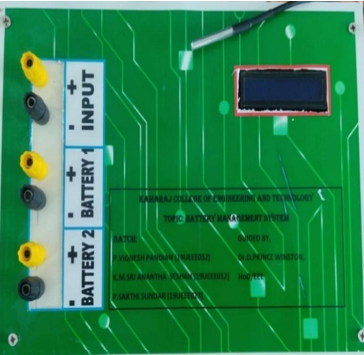

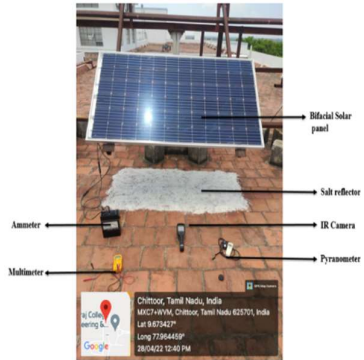
Academic Year	Title of the Project	Power converters	Automation	Renewable Energy Resources	IoT
2015-2019	Solar Powered Vehicle With Optimal Battery Charging Methodology			√	
2015-2019	Conditional Monitoring Of Industrial Motor Using IOT				√
2015-2019	Automation On V-Belt Profile Building Machine		√		
2015-2019	Safety Interlocking System			√	
2015-2019	Design Of Cascaded H-Bridge Three Level Inverter	√			
2015-2019	Cat Swarm Optimization Based Solid State Fault Current Limiter In Distribution System	√			
2015-2019	Pi Robot-2.0		√		




S. No.	Year	Power converters	Automation	Renewable Energy Resources	Internet of Things	Total Count
1.	2019-2023	1	2	5	3	9
2.	2018-2022	3	1	6	6	16
3.	2017-2021	4	11	6	12	33
4.	2016-2020	8	11	3	9	31
5.	2015-2019	9	13	9	4	35

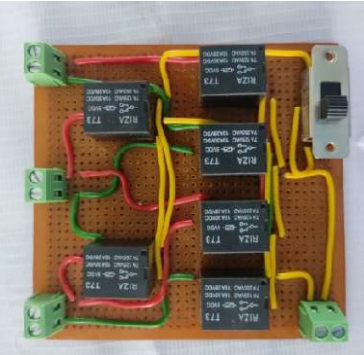
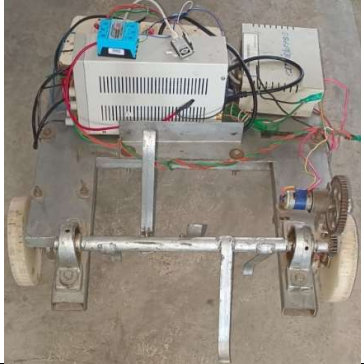

LIST OF PRODUCTS DEVELOPED




S. No.	Academic year	Title of the Project	Staff Involved	Students Involved	Pic. view
1.	2022-2023	Two phase to three phase converter for pumping in Agriculture	Dr. D. Mariappan	Natesh Vel.R Abiseak Kumar.S Harikrishnan.S	
2.	2022-2023	Portable ball throwing machine	Mr. S. Jegan	Sudharsan.K Suriya Prasath.L	
3.	2022-2023	Fabrication of Natural dye extractor	Mr. T. Hari Prasath	Deepak Ramji.S Hariharan A Marimuthu.G	



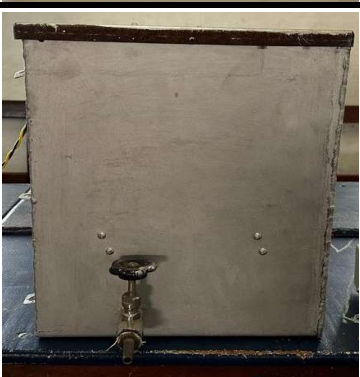
S. No.	Academic year	Title of the Project	Staff Involved	Students Involved	Pic. view
4.	2022-2023	DC-DC Convertor	Dr. D. Prince Winston	Vignesh Pandian P, P. Sakthi Sundar, K. M. Sri Anantha Seshan	
5.	2022-2023	IoT Supervised Machine Learning Module for Palatable Water Production in PV/T System using Industrial Sludges and Nautical Husks	Dr. B. Gurukarthik Babu	A Siva Balan	
6.	2022-2023	Touchless Digital Thermometer	Dr. D. Prince Winston	Vignesh Pandian P	

S. No.	Academic year	Title of the Project	Staff Involved	Students Involved	Pic. view
7.	2022-2023	Simple Battery Management System	Dr. D. Prince Winston	Vignesh Pandian P, P. Sakthi Sundar, K. M. Sri Anantha Seshan	
8.	2021-2022	Eco-friendly technique for palatable water generation from atmospheric air using industrial sludges and aquatic husks in PV/T module imbided with random forest technique and IoT analytics	Dr. B. Gurukarthik Babu	Pothiraj P	
9.	2021-2022	Performance Enhancement of Bifacial Solar PV Module Incorporated With Industrial Effluent As Reflector	Dr. B. Gurukarthik Babu	M. Manimaran, K. Harish Kumar, Pothiraj P	

S. No.	Academic year	Title of the Project	Staff Involved	Students Involved	Pic. view
10.	2021-2022	Automatic Pumping Water Controller	Dr. D. Prince Winston	M. Mohamed Kaseem, M. Muthu Nayagam, P.Sudharsun	
11.	2021-2022	Dry Cleaning Machine for Solar Photovoltaic Panel	Dr.J.Jeslin Drusila Nesamalar	M.Devisridhivyadh arshini M.Saranya S.Mathumeena	
12.	2021-2022	48V, 5A Li-ion Battery Charger	Dr. B. Gurukarthik Babu	B.Rajasekaran D.Gaaviyan	

S. No.	Academic year	Title of the Project	Staff Involved	Students Involved	Pic. view
13.	2020-2021	Switching Matrix Circuit for Battery Bank	Dr. D. Prince Winston	M. Pravin, A.G. Akash, S. Nithish, S. Kabilan	
14.	2020-2021	Iot Enabled Field Monitoring And Smart Agriculture System	Mrs. V. Chandra	Vishnu Karan. B Maripandi. M Dhanasekaran. V	
15.	2020-2021	Simple DC Microgrid System	Mrs.S.Vimaladevi	V.Durgalakshmi K.Subhashini A.S.Dona Mol	

S. No.	Academic year	Title of the Project	Staff Involved	Students Involved	Pic. view
16.	2020-2021	Automatic ON/OFF light Controller	Dr. D. Prince Winston	M. Pravin, A.G. Akash, S. Nithish, S. Kabilan	
17.	2020-2021	Solar Power Generation from the Parked EVs	Dr. D. Prince Winston	M. Pravin, A.G. Akash, S. Nithish, S. Kabilan	
18.	2019-2020	Screen Opening Setup	Dr. D. Prince Winston	M. Pravin, A.G. Akash	

S. No.	Academic year	Title of the Project	Staff Involved	Students Involved	Pic. view
19.	2019-20	Renewable Energy Based Atmospheric Water Harvesters for The Production of Potable Water	B Gurukarthik Babu & Dr. S. Kalyani	Vignesh R, B Ramkumar, R Arunkumar	
20.	2019-20	Smart Mirror Display	B. Noorul Hamitha	A. Sivabalan	
21.	2019-20	Eco-friendly technique for palatable water generation from atmospheric air using Industrial sludges and aquatic husks in PV/T module imbided with Random forest technique and IoT Analytics	B Gurukarthik Babu	Vignesh R, B Ramkumar, A.Mohammed Nasrulla	

Product Development

Number of Products/% of Product Conversion

