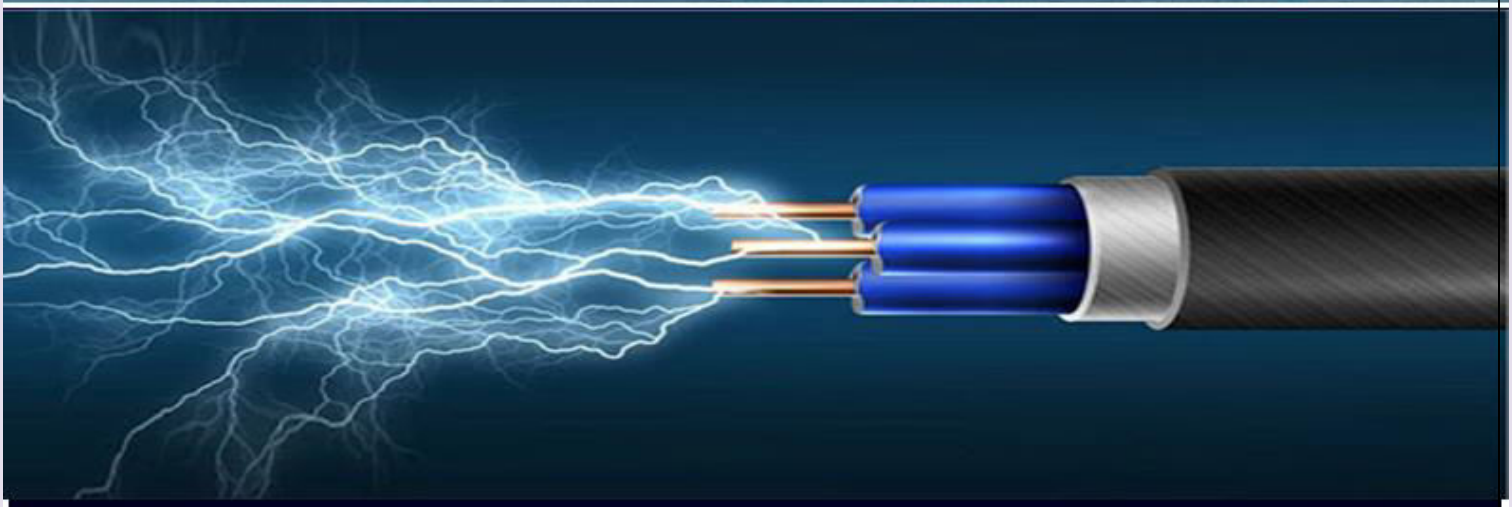
PRAGATI ENGINEERING COLLEGE
(Autonomous)

DEPARTMENT OF E.E.E



RADIANCE

ANNUAL TECHNICAL MAGAZINE

Volume-5

SEPTEMBER-2020

2019-20
RADIANCE

Address

Department of Electrical and Electronics Engineering
Pragati Engineering College
1-378, ADB Road, Surampalem, E.G.Dt, Andhra Pradesh, India-533437

CONTENTS


VISION
&
MISSION

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VISION:

To excel in engineering education and research, inculcating professional and social ethics among the students through academic excellence in the field of electrical & electronics engineering

MISION:

M1: To impart quality technical education for students to make them globally competent and technically strong.

M2: To collaborate with industries and academic institutions to enhance creativity and innovation with professional and ethical values.

M3: To motivate faculty and students to do impactful research on societal needs and to build team work among them.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS):

PEO1 :To produce graduates with a strong foundation in the basic sciences, mathematics, computing and core knowledge in Electrical and Electronics Engineering problems through high quality technical education.

PEO2 :To prepare graduates for successful and productive engineering careers, with emphasis on technical competency and with an attention to serve the needs of both private and public sectors by developing novel products and solutions for the real-time problems in a socio-economic way.

PEO3: To inculcate professional & ethical attitude, honing effective communication skills and managerial skills to work in a multidisciplinary environment as a technocrat/administrator/entrepreneur and to acquire the knowledge for pursuing advanced degrees in Engineering, Science, Management, Research and Development.

PROGRAM OUTCOMES (POS):

PO1 Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

PO 3 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.

PO 4 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.

PO 5 Modern tool usage: Create, select, and apply appropriate techniques, re- sources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO 6 The engineer and society: Apply reasoning informed by the contextual know- ledge to

assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the
professional engineering practice.

PO 7 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.

PO 8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10 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.

PO 11 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 multi- disciplinary environments.

PO 12 Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest con- text of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOS):

PSO1: Apply the concepts of Power Systems, Power Electronics and utilization of Renewable Energy in implementation of interdisciplinary projects.

PSO2: Acquire the knowledge of Electrical and Electronics Engineering to participate in national and international competitive examinations for success- for higher studies and employment.

ABOUT THE DEPARTMENT

The Department of Electrical and Electronics Engineering (EEE) is fully equipped and caters to the needs of all the students. The passed-outs as well as the current final year students achieved excellent placements in various MNC's. As a befitting reward to its incessant efforts in developing the department, the Department has added a feather in its cap by receiving the prestigious NBA accreditation in 2012 and also added prestigious NAAC with 'A' Grade and AUTONOMOUS in 2016.

Electrical branch has been qualified in AICTE-CII Survey-2015 and has grouped as "GOLD" category at National Level among a total of 2161 applications received by AICTE portal in the AICTE –CII Survey of industry linked technical institutes 2015. Pragati Engineering College has been granted the t-SDI (Technical Skill Development Institute) by APSSDC under G.O.MS.No.05, dated on 25-04-2016.

Progress of Science & Technology in the recent past has made enormous contributions to all walks of life. Research has played an indispensable role in the field of Electrical Engineering. Therefore zeal to pursue the latest advances has to continue.

With this objective in view, the department of Electrical and Electronics Engineering is publishing Technical Magazine to provide a forum for engineering students to update their knowledge & innovative ideas in the field of Electrical Engineering.

Dr. K. Satyanarayana M.Tech, Ph.D, MIE, MIEEE, MISTE, C Eng (Vice-Principal & HOD-EEE) is an Exuberant Person with a 14 Years Experience in The Teaching Field and 4years Experience in Industry. Having A Good Echelon, He Had Been Awarded "BEST TEACHER AWARD" On The Occasion of Sir Raghupati Venkata Ratnam Naidu Birth Day Celebrations By JNTU College Of Engineering, Kakinada On 01/10/2009. He has been awarded with PhD (Doctor of Philosophy) by JNTUK, KAKINADA on 20.06.2013 for the thesis entitled "Performance improvement techniques for Vector controlled Induction Motor Drives" under the guidance of Dr. A.Kailasa Rao, Professor and Director of Pragati Engineering college and Dr. J. Amaranth, Professor in EEE department, JNTUH, Kukatpally, Hyderabad. He has been felicitated by the College on 21.06.2013 for his meritorious achievement.

Dr. G. Naresh is appointed as Dean (Administration) of Pragati Engineering College and also awarded PhD in Electrical & Electronics Engineering by JNTUK, Kakinada for the thesis entitled "Design of PSS and TCSC for Multi-Machine Power Systems Employing various Metaheuristic Techniques". He had been honored "BEST TEACHER AWARD" at JNTUK University Auditorium, KAKINADA.

Technical trends

- Paper Presentation
- Technical Quiz
- Project Display
- Essay Writing
- Workshops
- Guest Lecture
- Industrial Visits

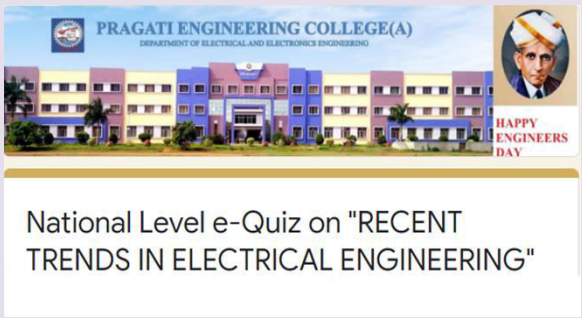
➢ *Technical trends*

Paper Presentation

❖ Fit Youth Fit India on the eve of National Youth Day Dated on 12.01.20120 II & III B.Tech, participated 20 students

Technical Quiz

❖ A National Level e-Quiz on "Recent Trends in Electrical Engineering"
Dated on 15.09.2019, I, II & III B.Tech certified 86 students

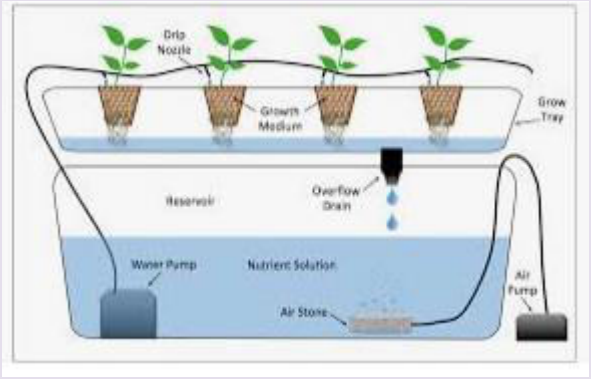


❖ The Institution of Engineers (India) student chapter of EEE Department conducted a online Technical Quiz on topic "Concepts of Electrical Engineering" on 26-06-2020

❖ International woman's Day was celebrated by EEE Department on 07th March, 2020. On this occasion under student chapter IEI of EEE Department conducted a Quiz among the students

Project display

❖ Mavireddy Vijaya Lakshmi , Mutya Sai Srikari , Nallamilli Sushmareddy are of III Btech selected for semifinbalist in AICTE Chhatra Vishwakarma Awards 2019 for Regional Convention for the topic "Rural Agriculture using hydroponics"



❖ Chitikela Venkata,, Durga Krishna Vamsi, Kota Ravindra Sai, Kurapati Sai Karthi, Pinapothu Sri Rama Sai Hanvesh are of III Btech selected for semifinbalist in AICTE Chhatra Vishwakarma Awards 2019 for Regional Convention for the topic "Crop health Intimator"

Essay Writing

- International Day of happiness was celebrated by EEE Department on 22th February, 2020. On this occasion under student chapter IEI of EEE Department conducted essay writing among the students on topic " Diversity, Equity, and Inclusion". 20 students were participated

Workshops

- GGSY Student Solar Ambassador Workshop-2019 Dated on 02.10.2019, II & III B.Tech , participated 129 students

Guest Lectures

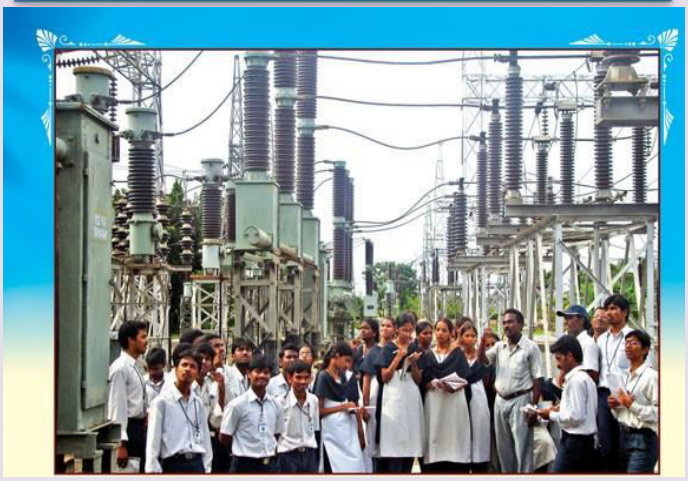
- PID Controller Design & Role of Automation in Industry Dated on 23.12.2019, II & III B.Tech, participated 180 students.
- Power Electronics Challenges, Trends Dated on 03.08.2019, III B.Tech, participated 130 students.
- Selection of Motor in Industrial Drives, 15.07.2019, II B.Tech, participated 110 students.
- Energy Efficient Motor, 01.07.2019, III B.Tech, participated 120 students
- Single line diagram of 400KV substation18.06.2018 II B.Tech, participated 105 students

Industrial Visit

- Power Grid Corporation of India Limited (POWERGRID) 765/400KV gas insulated Substation, Surampalem
  Dated on 10.03.2020, IV B.Tech, participated 119 students

Industrial Visit photos:

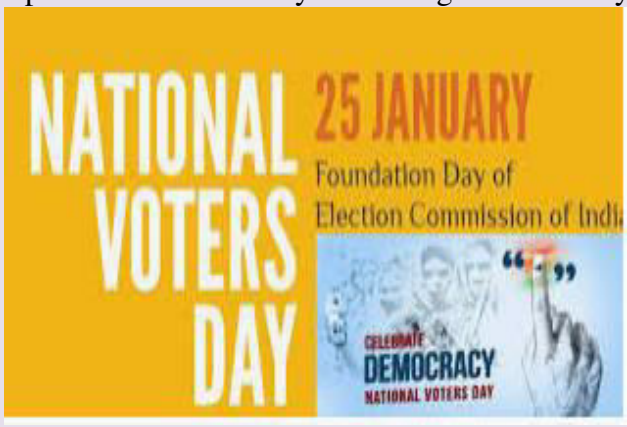




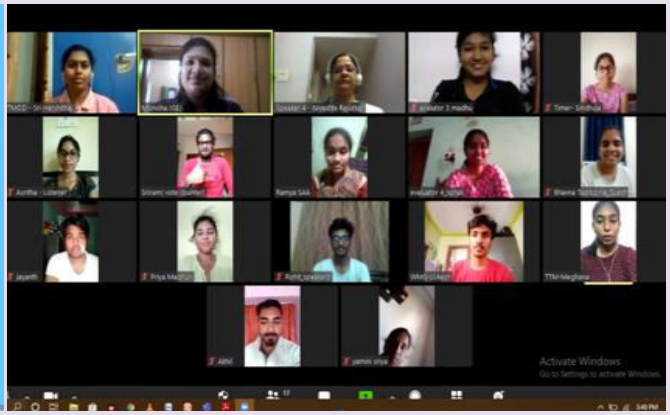

Calendar events

International Day of happiness was celebrated by EEE Department on 20th March, 2020. On this occasion under student chapter IEI of EEE Department conducted Elocution among the students on topic "Happier Together"

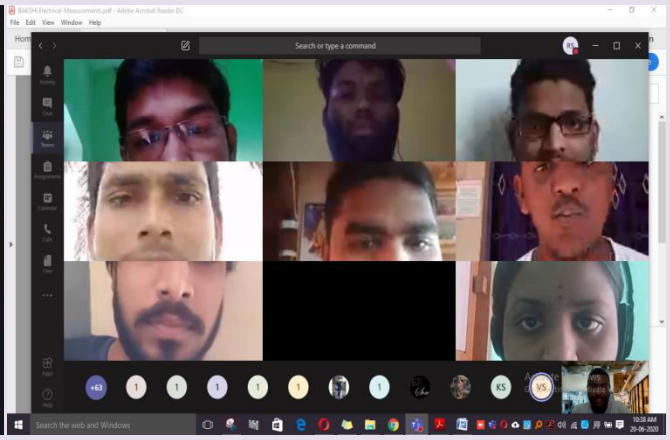
National Voter's day was celebrated by EEE Department on 25th January, 2020. On this occasion The Institution of Engineers (India) student chapter conducted Elocution Competition among the students on topic "Electoral Literacy for Stronger Democracy"



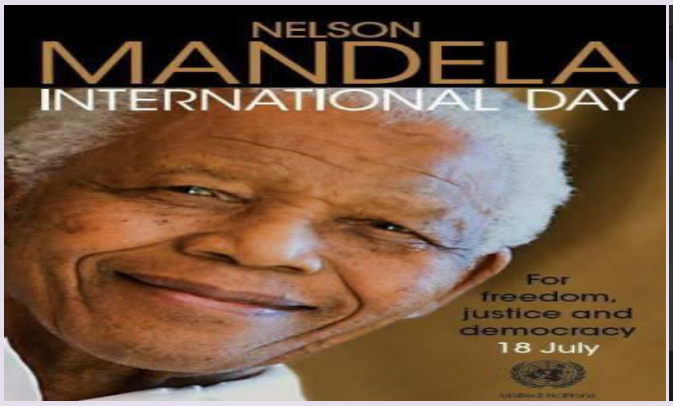
World Health Day was celebrated by EEE Department on 07th April, 2020. On this occasion under student chapter IEI of EEE Department conducted a Elocution among the students on Topic " Year of the Nurse and Midwife" in Zoom App

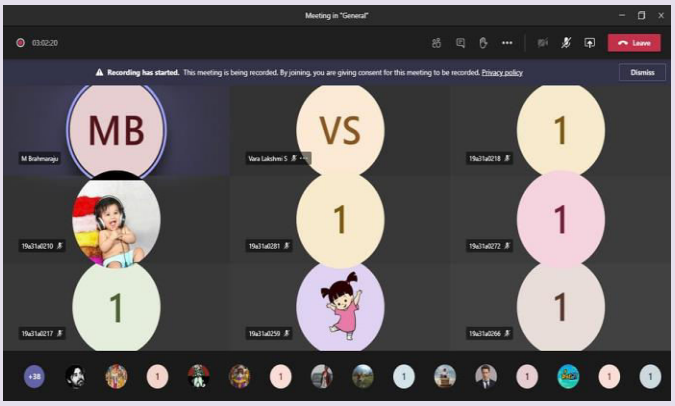


National Technology Day was celebrated by EEE Department on 11th May, 2020. On this Occasion EEE Department student chapter conducted Lecture to the student on " How to utilize Technology".

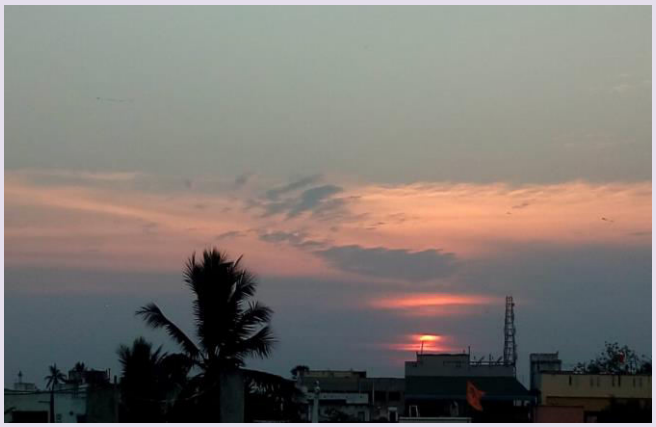


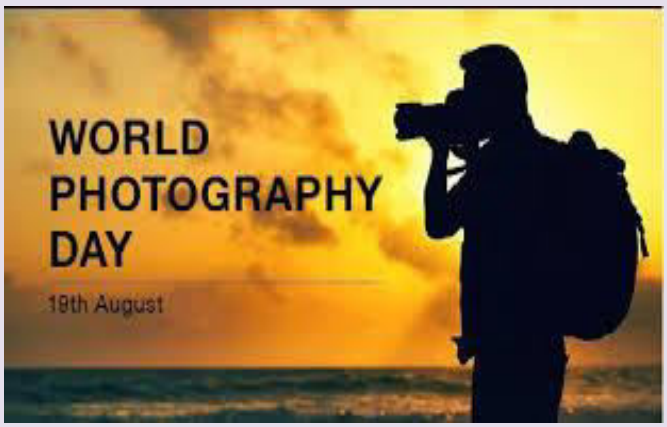
Nelson Mandela International Day was celebrated by EEE Department on 18th July, 2020. On this Occasion EEE Department student chapter conducted e elocution among the students on the topic "Take action, Inspire change" in Teams App



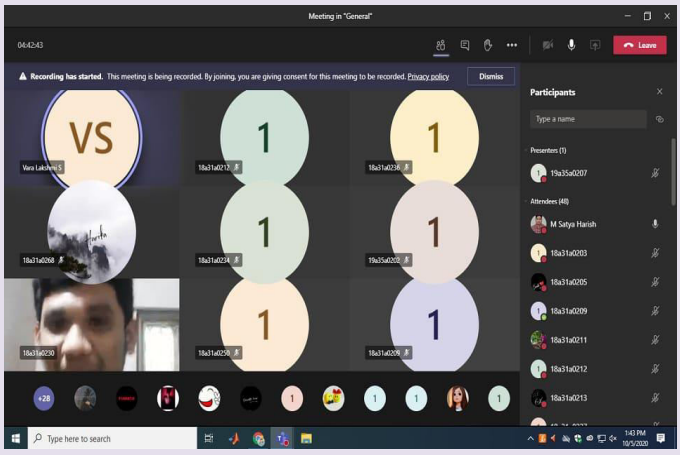


World Photography Day was celebrated by EEE Department on 19th August, 2020. On this occasion under student chapter IEI of EEE Department conducted a Film Show among the students on Topic "Understanding Clouds" in Teams App

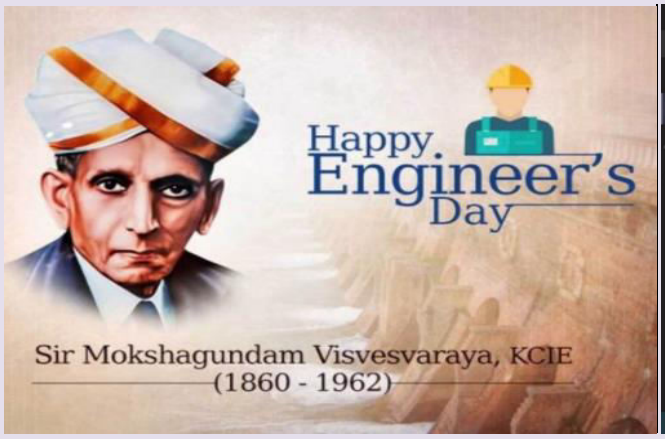


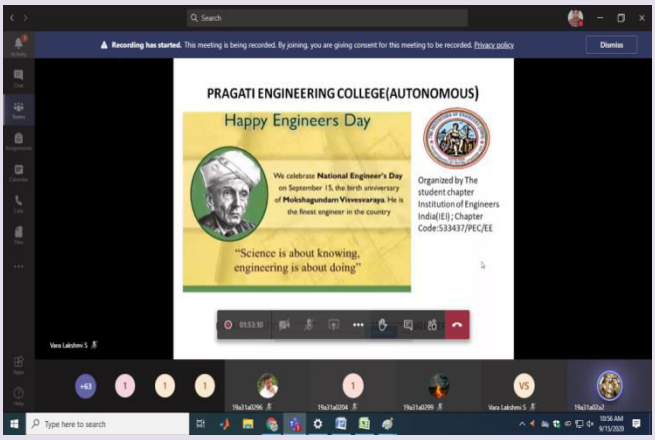


World Humanitarian Day was celebrated by EEE Department on 19th August, 2020. On this occasion under student chapter IEI of EEE Department conducted a Elocution among the students on Topic " Aid workers are overcoming unprecedented access hurdles to assist people in humanitarian crises" in Teams App



Engineer's day was celebrated by EEE Department on 15th September, 2020. On this Occasion EEE Department student chapter conducted an "e-elocution" through Google teams App on the topic "Recent Trends in Electrical Engineering"





Activity Published In National Level Newsletter

IEI, EEE dept, Student Chapters activities are published in National level Institute of Engineers Newsletter, Volume 2, issue 4, August 2019

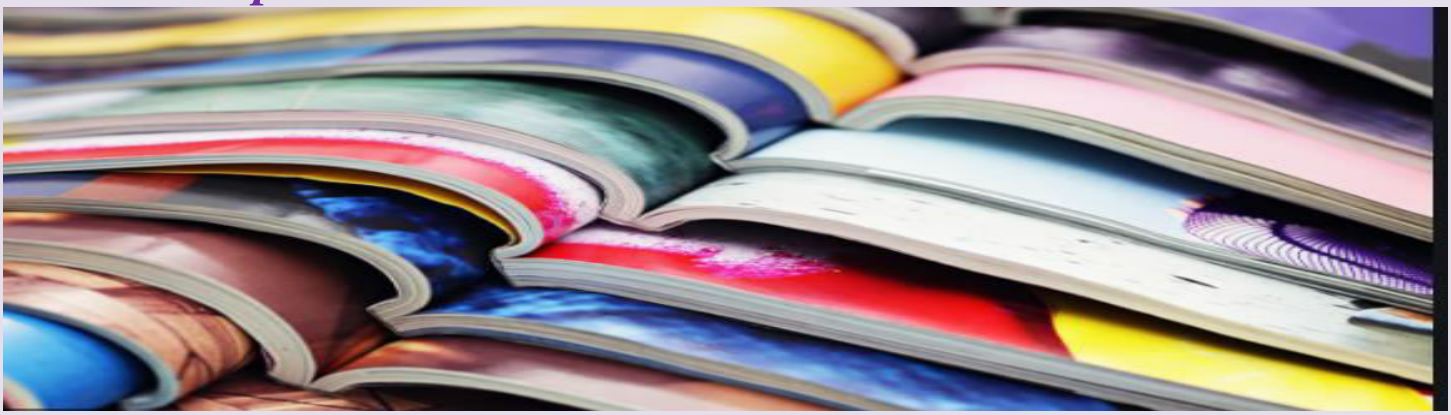
➢ *NPTEL certificates:*

S.No	Roll No.	Student Name	Course Name	Certificate Type
1	18A31A0202	Jangareddi Harichandana	Developing Soft Skills and Personality	Elite+Silver
2	18A31A0203	K Sai Ramyakrishna	Developing Soft Skills and Personality	Successfully completed
3	18A31A0204	K Sri Lakshmi Akanksha	DC Microgrid and Control System	Elite
4	18A31A0205	Koreddy Naga Durga	DC Microgrid and Control System	Elite
5	18A31A0206	K Ganga Bhavani	Developing Soft Skills and Personality	Elite

6	18A31A0207	Medapati Sujatha	Developing Soft Skills and Personality	Elite
7	18A31A0209	N Durga Santhoshi Mata	Soft skills	Elite+Silver
8	18A31A0211	Pachhigolla Ramya Sri	Developing Soft Skills and Personality	Successfully completed
9	18A31A0212	Pantham Udaya Sree	Soft skills	Elite+Silver
10	18A31A0213	Thota Sruthi	DC Microgrid and Control System	Elite
11	18A31A0214	T Srisumanpravarsha	Soft skills	Elite
12	18A31A0215	Upadhyay Sakshee	Developing Soft Skills and Personality	Elite
13	18A31A0216	Vankayala Varshitha	Developing Soft Skills and Personality	Successfully completed
14	18A31A0220	Amalakanti Tarun Sai	Developing Soft Skills and Personality	Elite
15	18A31A0222	Chaganti Janardhan Kamesh	Developing Soft Skills and Personality	Successfully completed
16	18A31A0223	Chilukuri Vara Prasad	Developing Soft Skills and Personality	Elite
17	18A31A0224	Ch Veerraghava Reddy	Developing Soft Skills and Personality	Successfully completed
18	18A31A0226	Desamsetti Surya Kumar	Developing Soft Skills and Personality	Elite
19	18A31A0227	Devarakonda Vamsi	Problem solving through Programming In C	Elite+Silver
20	18A31A0228	Doddi Ram Mohan	Developing Soft Skills and Personality	Elite
21	18A31A0230	G V Rama Lakshman	Developing Soft Skills and Personality	Elite+Silver
22	18A31A0232	Kola Umar Satish Kumar	Developing Soft Skills and Personality	Elite
23	18A31A0233	K Satya Nukesh	DC Microgrid and Control System	Successfully completed
24	18A31A0234	K Aditya Sri Harsha	Developing Soft Skills and Personality	Elite
25	18A31A0236	K Chinna Venkata Reddy	Developing Soft Skills and Personality	Successfully completed
26	18A31A0237	Makineedi Akash	Introduction to Smart Grid	Successfully completed
27	18A31A0242	Narla Surya Kiran	Developing Soft Skills and Personality	Elite+Silver
28	18A31A0244	P S S Durga Anil Kumar	Developing Soft Skills and Personality	Elite
29	18A31A0245	P Satya Venkata Ganesh	Developing Soft Skills and Personality	Elite
30	18A31A0249	Varasala Tarun Kumar	Introduction to Smart Grid	Successfully completed
31	18A31A0250	V S R Krishna Chaitanya	Developing Soft Skills and Personality	Elite
32	18A31A0251	Velpuri Manideep	Developing Soft Skills and Personality	Successfully completed
33	18A31A0252	Venkata Mani Teja S	Developing Soft Skills and Personality	Elite
34	18A31A0253	Y Surya Dheeraj	Developing Soft Skills and Personality	Elite
35	18A31A0254	Yejju Vamsi Krishna	Developing Soft Skills and Personality	Elite
36	18A31A0255	Yeturi Naga Surendra	Developing Soft Skills and Personality	Elite
37	19A35A0202	V Surya Kiranmai	Introduction to Smart Grid	Successfully completed
38	19A35A0203	Amajala Sri Ram Pavan	Introduction to Smart Grid	Successfully completed
39	19A35A0206	Mudunuru Satya Sriram	DC Microgrid and Control System	Elite
40	19A35A0207	Patra Sai Kishore	Developing Soft Skills and Personality	Elite
41	19A35A0209	Sivaneni Anand Eswar	DC Microgrid and Control System	Elite
42	19A35A0210	VVeera Venkata Lokesh	DC Microgrid and Control System	Successfully completed
43	18A31A0256	Arsha Zaheen	Introduction to internet of things	Successfully completed
44	18A31A0258	Baruku Chandini	Developing Soft Skills and Personality	Elite
45	18A31A0259	B Yasaswini Krishnasri	Introduction to internet of things	Successfully completed
46	18A31A0260	Chodisetti Anjani	Soft skills	Elite+Silver
47	18A31A0261	G P D K Mahalakshmi	Developing Soft Skills and Personality	Elite
48	18A31A0262	K S Kavya Nikitha	Introduction to internet of things	Successfully completed

49	18A31A0263	Koppisetti Ramya	Developing Soft Skills and Personality	Elite
50	18A31A0264	Koyya Monika	Introduction to internet of things	Elite
51	18A31A0266	Mannepalli Mounika	Introduction to internet of things	Successfully completed
52	18A31A0267	Marisetti Radha Lahari	Soft skills	Elite+Silver
53	18A31A0268	Narukula Harika	Introduction to internet of things	Successfully completed
54	18A31A0269	Pulaparthi Purna Latha	Developing Soft Skills and Personality	Elite
55	18A31A0270	Pendyala Lasya Priya	Introduction to internet of things	Successfully completed
56	18A31A0271	Penke Sirisha	Developing Soft Skills and Personality	Successfully completed
57	18A31A0274	S Sai Archana Bhargavi	Introduction to internet of things	Successfully completed
58	18A31A0275	Y N Lakshmi Pranathi	Introduction to internet of things	Elite
59	18A31A0276	Yerra Yamini Ravali	Introduction to internet of things	Elite
60	18A31A0278	Vommi Prem Kumar	DC Microgrid and Control System	Successfully completed
61	18A31A0279	V S N Sai Datha Vimal	DC Microgrid and Control System	Successfully completed
62	18A31A0281	Akana Satish	Developing Soft Skills and Personality	Elite + sliver
63	18A31A0282	A D S Sai Kirankumar	Developing Soft Skills and Personality	Elite+Gold
64	18A31A0283	Ch Siva Rama Krishna	Introduction to Smart Grid	Successfully completed
65	18A31A0286	Dasari Premkumar	Introduction to Smart Grid	Successfully completed
66	18A31A0287	Gandham Sanjay Kumar	DC Microgrid and Control System	Successfully completed
67	18A31A0290	G Bhagya Vinayaka Yogi	DC Microgrid and Control System	Successfully completed
68	18A31A0291	G Siva Sai Manohar	DC Microgrid and Control System	Successfully completed
69	18A31A02A0	Pakkurthi Eswar	Developing Soft Skills and Personality	Elite
70	18A31A02A2	Reddy Srikanth	Developing Soft Skills and Personality	Successfully completed
71	18A31A02A3	Reddy Uday Kiran	Developing Soft Skills and Personality	Elite
72	18A31A02A5	T H S S V Mani Vamsi	Introduction to Smart Grid	Successfully completed
73	19A35A0212	Yella Mahima Anjeelina	DC Microgrid and Control System	Successfully completed
74	19A35A0216	Galla Vijay Sagar	Introduction to Smart Grid	Successfully completed
75	19A35A0217	G D V Satya Harish	Introduction to Smart Grid	Successfully completed
76	19A35A0218	Isukapatla Syam Sundar	DC Microgrid and Control System	Elite
77	19A35A0219	J Uma Mani Shankar	Introduction to Smart Grid	Successfully completed
78	19A35A0223	Malladi Ravi Varma	Introduction to Smart Grid	Successfully completed
79	19A35A0225	Vedula Sai Shyam	Introduction to Smart Grid	Successfully completed

Student publications:



Automatic Solar Street Light Dimmer Controller Using Arduino

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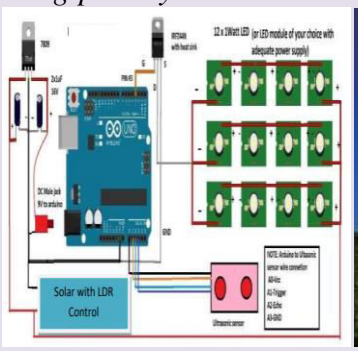
Street lights help the vehicles to guide along the road, but during late night hours, most of the roads will be empty and still all the street lights illuminate till morning. By the implementation of this concept we can use solar energy with LDR controller to dim the street lights in late night hours. Here we can reduce the brightness of the street lamps to desired level and only illuminate in full brightness when vehicles or human being pass by.



DC Motor Speed Control Using Pwm Technique

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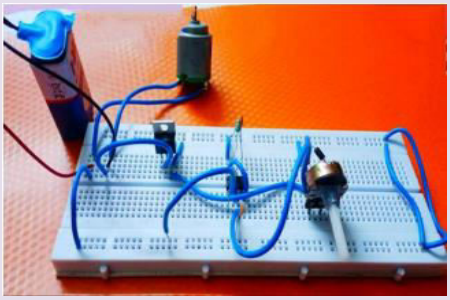
In this Project 555 timer (NE55P) is being operated in a stable mode, which produce a continuous HIGH and LOW pulses. The 555 Timer is capable of generating PWM signal when set up in an astable mode. In this mode, the 555 IC can be used as a pulse width modulator with a few small adjustments to the circuit. The frequency of operation of the circuit is provided by the passive parameters of resistances and capacitors attached to it. The speed control of DC motor is important in applications where precision and protection are of essence. The variable speed drives, till a couple of decades back, had various limitations, such as poor efficiencies, larger space, lower speeds, etc., However, the advent power electronic devices such as power MOSFETs, IGBTs etc., and today we have variable speed drive systems which are not only in the smaller in size but also very efficient, highly reliable and meeting all the stringent demands of various industries of modern era. Direct currents (DC) motors have been used in variable speed drives for a long time. The versatile characteristics of dc motors can provide high starting torques which is required for traction drives.



Authors

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V. Sai bhargav
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B-TECH III-EEE

Control over a wide speed range, both below and above the rated speed can be very easily achieved. The methods of speed control are simpler and less expensive than those of alternating current motors. There are different ways of speed control of motors but, each has its own limitations and PWM technique is more efficient and cheap speed control method.

Smoke Detector Alarm

A smoke detector alarm is a fire protection device that automatically detects smoke and also gives us warning. In the proposed system, a smoke detector upon senses smoke activates its alarm, sends a low voltage signal to all other smoke detectors in the vicinity. This low voltage signal activates the individual relays in the other smoke detectors causing them to emit a tone that alerts residents that one of the smoke detectors senses smoke. In this system the transmitter and receiver are installed in a unit and the need for a base is eliminated. The individual smoke detectors are equipped with all the electronics required to both send and receive signals. They are battery operated and therefore they require no external connections. They can be installed by a homeowner just as they would a normal smoke detector. The proposed design is aiming to have Cost efficient system, Compact design, easily expandable, Simple to install, Replaceable components. The system was tested indoor and outdoor with different distance and with the presence of noise. Standard for Safety of Smoke Alarms, to measure the performance of a large number of existing smoke alarms

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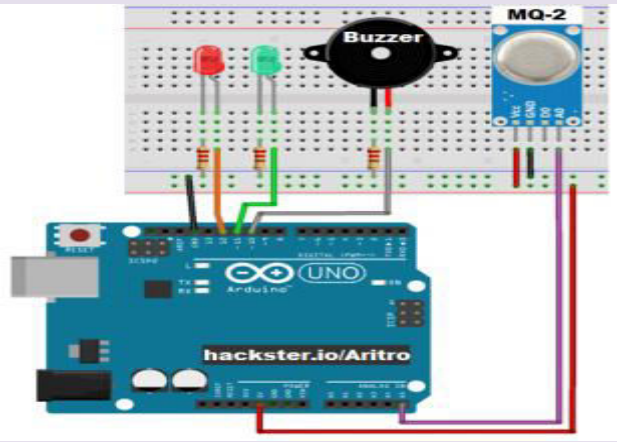

Density Based Traffic Control System Using Arudino And Ultrasonic Sensors

The project is designed on the optimisation of traffic light controllers based on density of traffic control using

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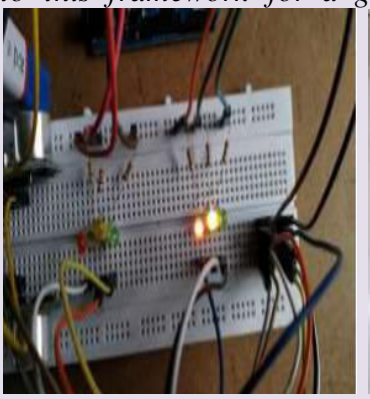
arduino and ultrasonic sensors .The Main clause is on heavy traffic, when the timing of signal is changed automatically on sensing traffic heavy at the junction. Traffic is a major problem and most towns and cities across the world.It is better to shift from the manual mode to an automatic mode with decision management capabilities. And on comparing the present circumstance of traffic it excessively causes air pollution by smoke emitting vehicles and also cause drivers that can hold up there unnecessary impatiens and and they become aggressive while driving leads to accidents, congestion, air and noise pollution.to beat such issue, traffic management system gathers information from heterogeneous sources, exploits such information to spot hazards which will potentially degrade the traffic efficiency, then provides services to regulate them. Our main intention is to implement this system in major deaths due to road accidents. And enhance the use of modern technology which can help others to minimise wrecks.Now, the present traffic system is fixed on time based management. It is more inefficient than others.To optimise this problem, we have figured out the solution to this framework for a good traffic control system.



Electric Power Generation Using Speed Breakers

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This project includes how to utilize the energy which is wasted when the vehicles passes over a speed breaker. Lots of energy is generated when vehicle passes over it. We can tap the energy generated and produce power by using the speed breaker as power generating unit. The kinetic energy of the moving vehicles can be converted into mechanical energy of the shaft through rack and pinion mechanism. Then, this mechanical energy will be converted to electrical energy using generator which will be saved with the use of a battery. The energy we save during the day light can be used in the night time

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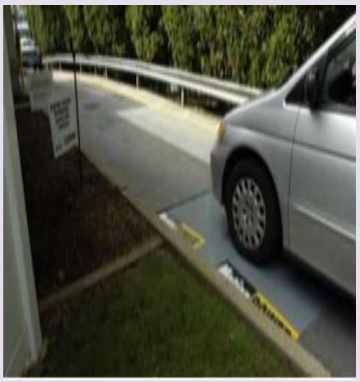
for lighting street lights. Therefore, by using this arrangement we can save lot of energy which can be used for the fulfillment of future demands and this power can also be use for maintenance of Toll gate as a Backup.



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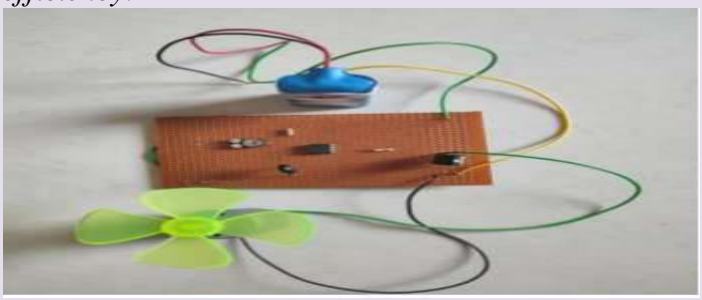
Dc Motor Based Automatic Temperature Controller Using Thermistor

In this project the main intension is to control the fan by heating the sensor, i.e. the thermistor, where the speed of the fan is dependent and controlled by any device's temperature like PC. As the temperature of the device increases or decreases, the speed of fan increases or decreases respectively. So it can be used mainly as a cooling device. By modifying the circuit slightly, it can also be used to control the room temperature, depending on the property of thermistor. The thermister used in the circuit here, decreases its resistance with increasing temperature, hence the electrical conductivity also increases, increasing voltage across it, resulting in an increment in the speed of the fan. Thus, it is possible to control the speed of the fan automatically when the device's temperature varies. Experiment can be followed to evaluate whether this circuit can save energy through the use of temperature sensor and thus promote efficiency.



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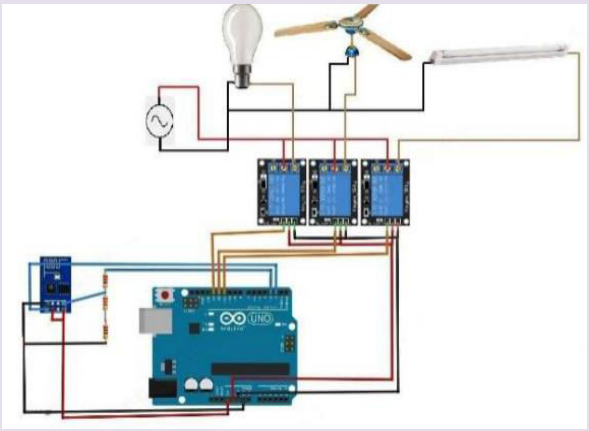
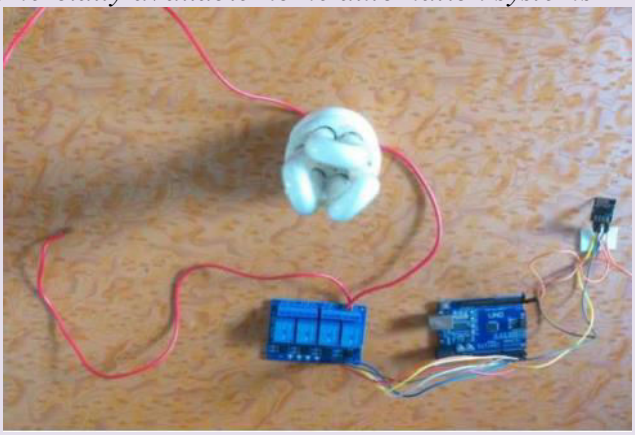


Wifi Based Home Automation

This paper presents a design and prototype implementation of new home automation system that uses WiFi technology as a network infrastructure connecting its parts. The proposed system consists of two main components; the first part is the server (web server), which presents system core that manages, controls, and monitors users' home. Users and system administrator can locally (LAN) or remotely (internet) manage and control system code. Second part is hardware interface module, which provides appropriate interface to sensors and actuator of home automation system. Unlike most of available home automation system in the market the proposed system is scalable that one server can manage many hardware interface modules as long as it exists on WiFi network coverage. System supports a wide range of home automation devices like power management components, and security components. The proposed system is better from the scalability and flexibility point of view than the commercially available home automation systems



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Simple Low Power Inverter Circuit

The word 'inverter' in the context of power electronics denotes a class of power conversion (or power conditioning) circuits that operates from a dc voltage source or a dc current source and converts it into ac voltage or current. The 'inverter' does reverse of what ac-to-dc 'converter' does (refer to ac to dc converters). Here is a simple low power inverter that converts 12V DC into 230-250V AC. It can be used to power very light loads like window chargers and night lamps, or simply give shock to keep the intruders away. The circuit is built around just two ICs, namely, IC CD4047 and IC ULN2004 (IC1) is a monostable/astable multivibrator. It is wired in astable mode and produces symmetrical pulses of 50 to 400 Hz, which are given to IC2 via resistors R1 and R2.IC ULN2004 (IC2) is a popular 7-channel Darlington

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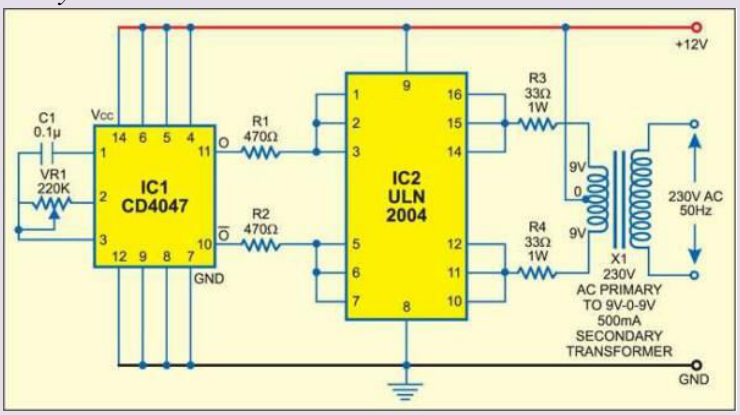
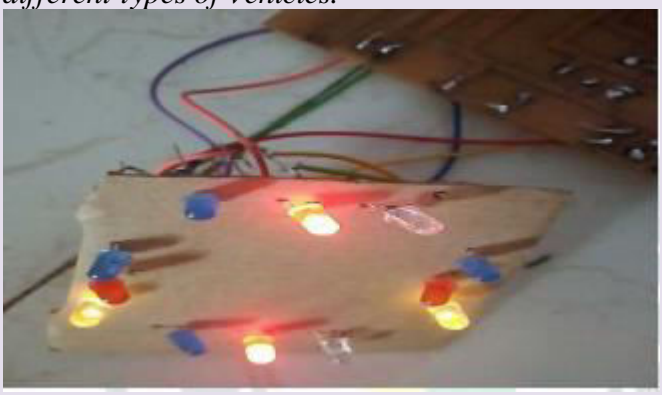
array IC.



Four Way Traffic Signal Circuit Using 555 Timer

Four Way Traffic Lights Circuit using 555 Timer IC. In this traffic light project we are going to design a circuit, to control traffic lights on a four-way signal. This circuit is designed by 555 Timer IC timer and a decade counter. The timer generates pulses and these pulses are fed to the ten stage decade.Traffic signal lights are very Important to regulate vehicles and traffic on roads, simple four way traffic light circuit is designed with timer IC 555 and counter IC CD4017. we know each traffic signal light setup will have three colors and representing Red for STOP, Yellow for WAIT, and Green for GO, those signals are works based on time intervals. Traffic light has proved to be an amazing way to stop the vehicular collisions and control the traffic jams in today's modern era where everyone owns the different types of vehicles.



Road Reflector Light Using LDR

The Automatic Road Reflector is a simple but effective system will help us automate the traditional road reflectors. The Automatic Road Reflector can be very essential in leading the vehicles on their path at the time of night. The color of the LED can be rearranged in order to fulfill various

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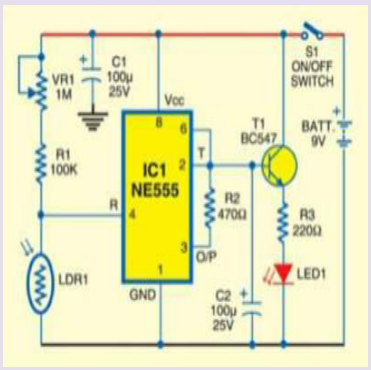
requirements. They can be used to divide the road, show a curvature or an exit on the road. They can be very useful at the places like the airport and airport hangers where various colors of road reflectors are used to fulfill various purposes.



Temperature Controlled Fan Using Arduino

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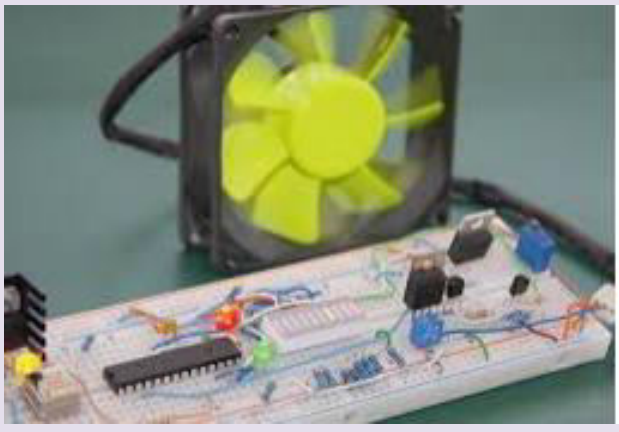
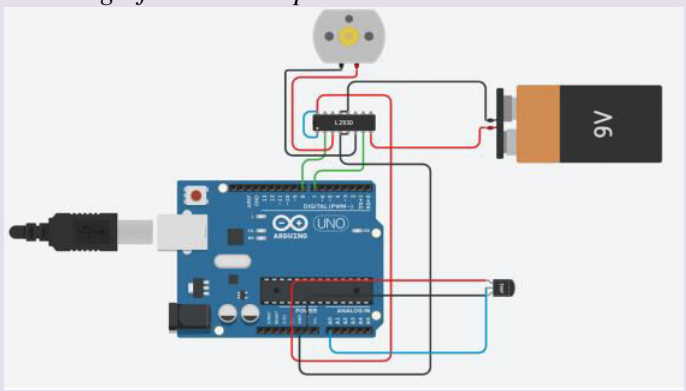
In present scenario, availability of electricity is found to reach crucial stage. To protect and safeguard one's future we need to save the energy. As a slogan suggest "One unit saved is one unit generated". The project is a standalone automatic fan speed controller that controls the speed of a fan when the temperature is greater than the threshold value. Use of embedded technology makes this closed loop feedback control system efficient and reliable. Arduino microcontroller allows dynamic and faster control. It is very compact as it is constructed by using few components and can be interfaced for several applications including air-conditioners, water-heaters, snow-melters, ovens, heat-exchangers, mixers, furnaces, incubators, thermal baths and veterinary operating tables. Arduino microcontroller is the heart of the circuit as it controls all the functions. The temperature sensor LM35 senses the temperature and converts it into an electrical signal, which is forwarded to the microcontroller. The microcontroller drives transistor to control the fan speed. This project uses regulated 9V, 1A power supply. This project is useful in process industries for maintenance and controlling of boilers temperature.





Smart Controlled Electric Wheel Chair

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There are many patients such that they may get completely paralyzed on one side such that their hand doesn't work and even the other hand doesn't have much grip to move a joystick to control their movement of chair although they can slightly move their hand and many other patients or people who are physically handicapped do have similar problem in order to overcome this , In this paper we are introducing A prototype of smart controlled wheel chair where we can control the wheel chair with slight movement of any part of the body without any physical touch to the controller which is very cost efficient. Smart controlled wheel chair is a small basic idea of implementing control of chair without any physical contact to any steering, joystick or any other physical operation. Driving and controlling of the motion of the chair is completely by using gestures.

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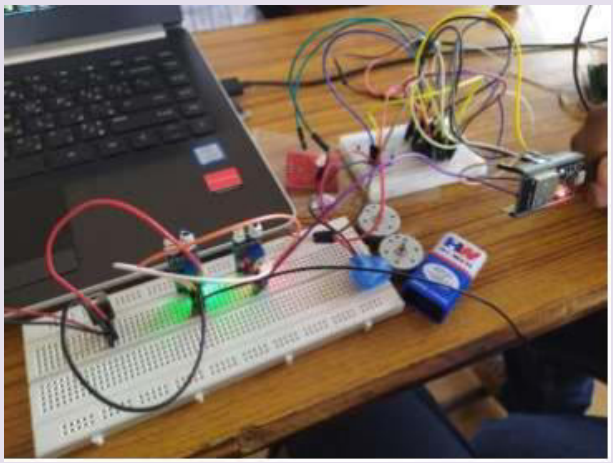

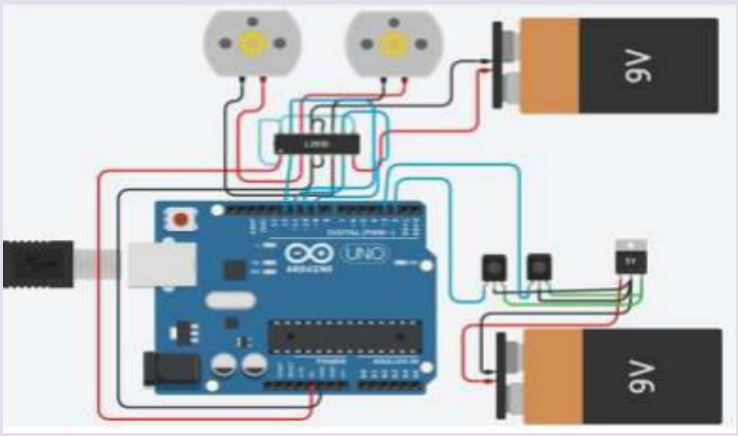


Staff
Activity

S.no	Academic Year	Title of the Faculty Development Programme	Name of the Resource Person(s)	Date (s)	No.of Participants
1	2019-20	One week online Faculty development programme on esim- A free and open source EDA tool	Spoken Tutorial,IIT Bombay	15/06/2020 to 19/06/2020	356
2	2019-20	One week Faculty development programme on "Recent Trends in Power Electronics Applications in Smart Grid, Electric Vehicles and Renewable Energy"	1) Prof S.Srinivasa Rao, Professor & Head, Department of Electrical Engineering, NIT Warangal. 2) Dr. D. Sreenivasa Rao, Asst. Professor, Department of Electrical Engineering, NIT Warangal. 3) Dr. G. Siva Kumar, Asst. Professor, Department of Electrical Engineering, NIT Warangal. 4) Dr. Guganeswaran Subramaniam System Validation Engineer at Intel, Bangalore 5) Dr. V. T. Somasekhar, Professor, Department of Electrical Engineering NIT Warangal. 6) Dr. K.Siva Kumar, Assoc. Professor, Department of Electrical Engineering IIT Hyderabad	26.08.2019 to 31.08.2019	42

3	2018-19	Two Day Faculty Development Programme (FDP) on MATLAB Applications for Electrical Systems	1)Sri. J.Prem Kumar, Project Manager , Capricot Technologies Pvt. Limited ,Bangalore . 2) Dr.K.Satyanarayana, Professor & HOD of EEE, Pragati Enginerring College. 3) Dr.G.Naresh , Professor of EEE Department, Pragati Enginerring College.	*18.02.2019 & 19.02.2019*	45

Faculty membership in professional bodies

The mission of the professional societies is primarily educational and informational. Their influence flows from their continuing and highly visible functions: to publish professional journals, to develop professional excellence, to raise public awareness, and to make awards.

s.no	Faculty name	Committee
1	Dr. K.Satyanarayana	1. Life member of Indian Society for Technical Education 2. MIE Life member of Institute of Engineers (INDIA)
2	Dr. G.Naresh	1. Member of Indian Society of Technical Education (ISTE) 2. Members of International Association of Computer Science and Information Technology (IACSIT)
3	Dr.R.Sathish Kumar	1. Computer Science Teachers Association (CSTA). 2. International Association of Engineers (IAENG)
4	Mr. S.M.Shariff	Member of Indian Society of Technical Education (ISTE)
5	Mr.M..Harish	1. Computer Science Teachers Association (CSTA). 2. International Association of Engineers (IAENG)
6	Mr.T.P.Jaya Kumar	1.Computer Science Teachers Association (CSTA). 2.International Association of Engineers (IAENG)
7	Mr.R.S.Sudhakar	Member of The Indian Society for Technical Education (**ISTE**)
8	Mr.Ch.Pavan Kumar	Computer Science Teachers Association (CSTA).
9	Mr.B.Rathan Kumar	1.Computer Science Teachers Association (CSTA). 2.International Association of Engineers (IAENG)
10	Mrs. P.VijayaPrasuna	Member of International Association of Engineers (IAENG)
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12	Mr.S.Ashokreddy	
13	Mr.D.Krishnachaitanya	
14	Mr.P.Krishna chaitanya	
15	Mr.M.N.V.V.Brahmmam	
16	Mrs.K.Sandyarani	
17	Mr.M.V.Chandrakumar	
18	Mr.G.Bhavannarayana	
19	Mr.M.Manishankar	
20	Ms.S.Varalakshmi	
21	Ms.S.Sravani	
22	Mr.K.Sree Harsha	

Faculty reviewers for journals

s.no	Faculty name	Reviewer/member in Journal/Conference
1	Dr. K.Satyanarayana	1.Taylor & Francis (Electric Power Components & Systems 2.International Journal of Engineering and Advanced Technology 3. International Journal of Scientific & Engineering Research -IJSER
2	Dr. G.Naresh	1.International Transactions on Electrical Energy Systems,Wiley 2.CPSS Transactions on power Electronics and Applications , A Publication of China Power Supply Society 3.International Energy Journal(IEJ),Regional Energy sources information Centre (RERIC) journals ,Asian institute of Technology,Thailand

		4. Computers & Electical Engineering ,Elsevier Publishers 5.Electric Power Components & Systems Journal ,Taylor and Francis
3	Dr.R.Sathish Kumar	Institute of Electronics, Information and Communication Engineers(IEICE)
4	M.Satya Harish	1. Journal of Emerging technologies and innovative Research (JETIR-ID 113692)

Faculty achievements

1. **Dr.K.Satyanarayana, Professor & HOD-EEE** received a grant of **1.54 Lacks** from **AICTE to conduct a** Short Term Training Programmes **(STTPs)** on "**Recent Trends in Electric Vehicles**" Under **AQIS**
2. **Dr.K.Satyanarayana, Professor & HOD-EEE received** an allotment letter to conduct an Induction/Refresher programme on "**Hybrid Energy Storage Systems – DPE" from AICTE-ISTE with a grant of 282000/-**.
3. **Dr.K.Satyanarayana, Professor & HOD-EEE received grant of 11.06 Lacks from AICTE under the scheme of MODROB** with title of the Project: "**Voltage Sag/Swell Mitigation using FPGA controller based Unified Power Quality Conditioner**"

Faculty publications:

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Performance Improvement of Sensorless Vector Controlled Induction Motor Drive for Medium Power Applications

This paper deals with sensorless vector controlled induction motor in which torque pulsations are reduced with improved input of induction motor. In proposed technique two multi winding transformers are used for generation of 18 sinusoidal signals given to rectifier unit and the rectifier output given as input to 9 level multi level inverter. In this proposed technique gating signals to the inverter switches will be provided through space vector pulse width modulation which considers speed as reference. This configuration was simulated in MATLAB/Simulink. And the simulation results are presented here with improvement in reduction of THD.

A Novel Seamless Reconnection and Islanding Technique for UPQC Connected Micro-Grid using Proportional Resonant Controller

This paper proposes a novel technique for the integration of Unified Power Quality Conditioner (UPQC) in Distributed Generation (DG)-based Micro-Grid (μG) system with Proportional Resonant (PR) controller has been presented here. The DG converters
and UPQC Active shunt Power Filter (APFsh) are placed at the Point of Common Coupling (PCC) and a dc link is also integrated with the

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storage system. The series part of the UPQC (APFse) is connected before the PCC and in series with the grid. During the interconnected and islanded mode, DG converter with storage will supply the active power and the shunt part of the UPQC will supply the reactive and harmonic powers required by the load. DG converter will remain connected during the voltage disturbances. An intelligent islanding detection and reconnection technique (IR) is introduced in the UPQC and PR Controller is used as a secondary control. This arrangement is termed as UPQCμG–IR. The simulation studies were conducted using MATLAB/Simulink software. The advantage of this proposed UPQCμG–IR over the normal UPQC in providing extra compensation during voltage interruption, voltage sag/swell, harmonic and reactive power compensation during interconnected mode are observed through simulation studies. Results obtained show the effectiveness of the proposed controller under both Islanding mode as well as in grid-connected mode.

Quasi Z-Source Inverter for Pv Power Generation Systems

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For the enormously increased power demand in the modern world, the existing fossil fuel sources seem to be inadequate to meet the demands. Hence, it is necessary to switch over to use Renewable Energy Sources (RES). Besides the demand concerns, the power generation from fossil fuels causes environmental pollution prominently. As a result, the utilization of RES has been encouraged. When RES is interconnected with the grid, this system becomes an excellent solution to fulfill the power demand of the present scenario. The energy generated from renewable energy sources varies according to seasonal variations. The power generated from RES can be delivered to the load by interconnecting it with the grid. When a small size RES system is connected with the distribution network, it can deliver energy to the isolated zones where the energy cannot be drawn from the conventional network. In this work, the Artificial Neural Network based Maximum Power Point Tracking scheme has been introduced with Photovoltaic (PV) power generation. Also, a bi-directional charger is introduced to overcome the battery issues. The model is evaluated in the MATLAB/SIMULINK package. The performance of the system is analyzed by applying different voltage levels to qZSI. The voltage gain, effectiveness of the scheme, MPPT and the regulation of the voltages are observed.

PV-Hess Based Zeta Converter for BLDC Motor Drive using Fuzzy Logic Controller

The growing importance of non conventional energy in the auto mobile industry needs the use of brushless DC (BLDC) motor drives the solar photo voltaic (PV). To overcome the disadvantages in the

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conservative DC-DC converters, Zeta converter is used to optimize power handling through controlling of duty cycle. To mitigate changes in output of PV, the Hybrid Energy Storage System (HESS) is implemented into the PV system to maintain a constant voltage at the BLDC motor input. The PV-HESS system is controlled correctly by a robust power management algorithm. The Zeta converter can meet the smooth performance of the system by using particle swarm optimization technique of maximum power point tracking. By placing set of rules in the FLC controller we get the system stability faster than existed controller. The performance of the fuzzy logic.

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Optimization model of renewable source water pump using fuzzy logic controller

This paper discusses about the optimization of solar renewable source water pump. A novel method of water level regulation is provided based on a Fuzzy logic controller. The main objective of this paper is to supply the water according to the needs of the users regardless of dynamic variations in the climatic conditions. The paper focuses on the design and optimization of the power generated from the Photo Voltaic Generator and to regulate the water in the tank. A fuzzy logic controller is used to control the solar water pumping system. The controller generates the reference speeds necessary for the PWM generator to control each DC/DC boost converter considering water levels in three tanks and instantaneous value of the solar radiation. The performance of the controller is tested on a mini residential apartment . The system performance is tested using MATLAB/ SIMULINK environment

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A Droop Control Strategy for Minimization of Circulating Current in Low-Voltage Dc Micro grid

Micro grid system is formed to provide reliable electricity and heat delivering services by connecting distributed generations and loads together within a small area. Low- Voltage Dc Micro grid faces problems on load sharing and circulating current issues of parallel-connected dc–dc converters in low-voltage dc microgrid . microgrids can help overcome power system limitations, improve efficiency, reduce emissions and manage the variability of renewable sources. Droop index (DI) is introduced in order to improve the performance of DC micro grid, which is a function of normalized current sharing difference and losses in the output side of the converters. The proposed fuzzy based droop control method minimizes the circulating current and current sharing difference between the converters based on instantaneous virtual resistance .This results

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shows difference between pi and fuzzy and it is implemented using MATLAB/SIMULINK

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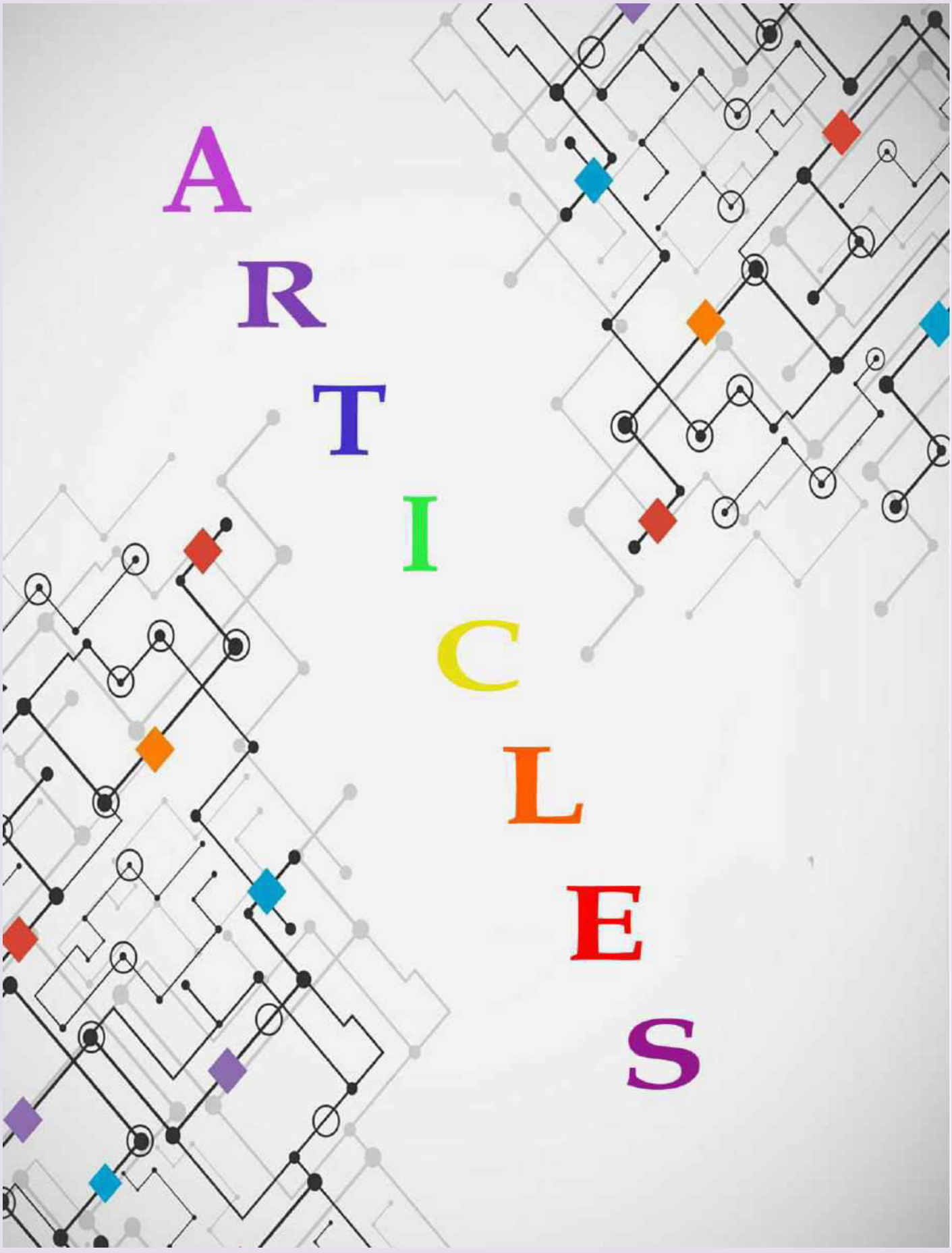
Power Quality Improvement using Modified Cuk-Converter with Artificial Neural Network Controller Fed Brushless Dc Motor Drive

Power factor rectification converter (PFRC) hinged bridgeless modified CUK (MCUK) converter supplied to brushless DC engine drive utilizing an Artificial Neural Network controller. Presently, alteration for traditional CUK converter can be obtained through adding a voltage multiplier circuit, to decrease converter losses for wide variation of speed to accomplish most extreme Power Factor and to limit the Total Harmonic Distortion (THD). The designed bridgeless PFRC based converter was investigated hypothetically to obtain the circumstances, for example, Power factor (PF) and Total Harmonic Distortion (THD) are assessed and contrasted with traditional Diode Bridge Rectifier hinged CUK converter supplying to brushless DC motor drive and bridgeless altered CUK using PI controller driven brushless DC motor. Here, simulation results uncover that the ANN controllers are viable and productive contrasted with PI controller, as the steady state error when ANN control used is less and the stabilization of the system is better while using it. Additionally in ANN system, the time to perform calculation is less as there are no numerical models. The performance of the designed framework is simulated in MATLAB/Simulink environment.

An Optimization Technique For Fault Detection On Transmission Line Using Transient Monitor Index Parameters

Transmission lines are incessantly disturbed with any kind of temporary or permanent faults, leads to effect of system stability and reliability. In order to avoid this issue, well operated distance relays are needed to be designed. Generally, Relay will provide accurate information for circuit breakers operation during occurrence of any kind of fault. Faults in transmission lines be detected first for immediate removal of fault to protect the system and then ensue to classify the type of fault by the relay. This paper introduces a new scheme for fault detection and classification on transmission line using Transient monitor index method. The proposed method calculates transient monitor index values from measured currents signals from one end information. These index values will discriminate the fault from normal event within a short duration and also classify the nature of the fault. The performance of the proposed method is studied on 500kV, 50Hz two terminal transmission system under MATLAB/SIMULINK environment. Different critical faults and non-fault events were simulated and the results show that the proposed method gives more accurate and faster response than other existing methods


ARTICLES

INFRARED PLASTIC SOLAR CELL

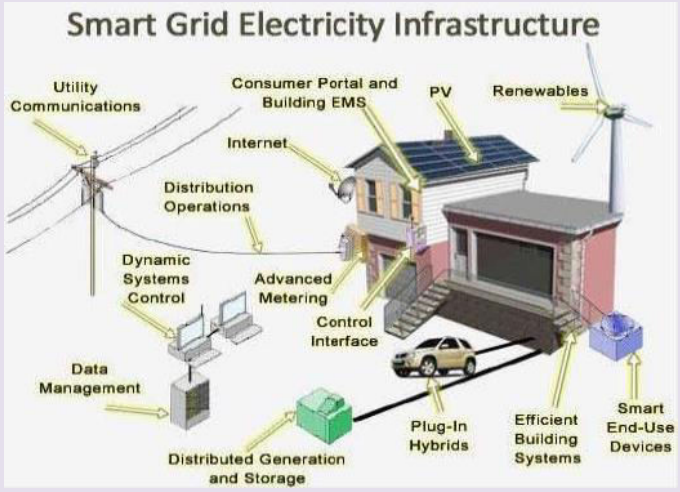
Nanotechnology is the nexus of sciences. Nanotechnology is the engineering of tiny machines - the projected ability to build things from the bottom up using techniques and tools being developed today to make complete, highly advanced products. It includes anything smaller than 100 nanometers with novel properties. As the pool of available resources is being exhausted, the demand for resources that are everlasting and eco-friendly is increasing day by day. One such form is the solar energy. The advent of solar energy just about solved all the problems. As such solar energy is very useful. But the conventional solar cells that are used to harness solar energy are less efficient and cannot function properly on a cloudy day. The use of nanotechnology in the solar cells created an opportunity to overcome this problem, thereby increasing the efficiency. This paper deals with an offshoot in the advancement of nanotechnology, its implementation in solar cells and its advantage over the conventional commercial solar cell.

P. Nancy Rachel

SMART GRID

Today's Alternating current power grid evolved after 1896, based in part on Nikola Tesla's design published in 1888 (see War of Currents). At that time, the grid was conceived as a centralized unidirectional system of electric power transmission, electricity distribution, and demand-driven control. In the 20th century power grids originated as local grids that grew over time and were eventually interconnected for economic and reliability reasons. By the1960s, the electric grids of developed countries had become very large, mature and highly interconnected, with thousands of 'central' generation power stations delivering power to major load centers via high capacity power lines which were then branched and divided to provide power to smaller industrial and domestic users over the entire supply area. The topology of the 1960s grid was a result of the strong economies of scale of the current generation technology: large coal-, gas- and oil-fired power stations in the 1 GW (1000 MW) to 3 GWscale are still found to be cost-effective, due to efficiency-boosting features that can be cost effectively added only when the stations become very large.

A **smart grid** is a digitally enabled electrical grid that gathers, distributes, and acts on information about the behavior of all participants (suppliers and consumers) in order to improve the efficiency, importance, reliability, economics, and sustainability of electricity services.

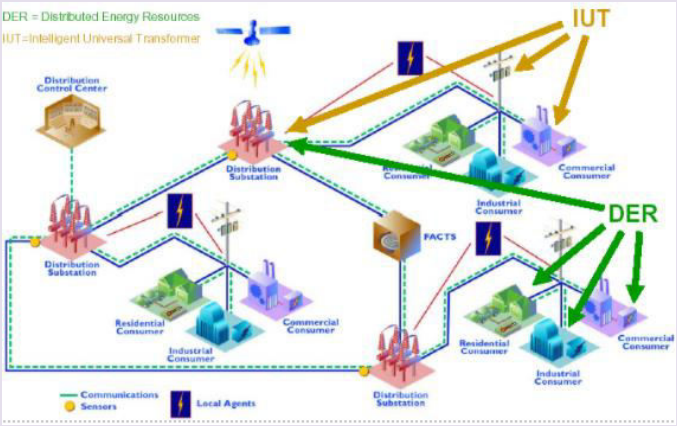


Y. Yogitha chowdary

INTELLIGENT MANAGEMENT OF ELECTRICAL SYSTEMS IN INDUSTRIES

The automation of public electricity distribution has developed very rapidly in the past few years. The same basis can be used to develop new intelligent applications for electricity distribution networks in industrial plants. Many new applications have to be introduced because of the different environment and needs in industrial sector. The paper includes a system description of

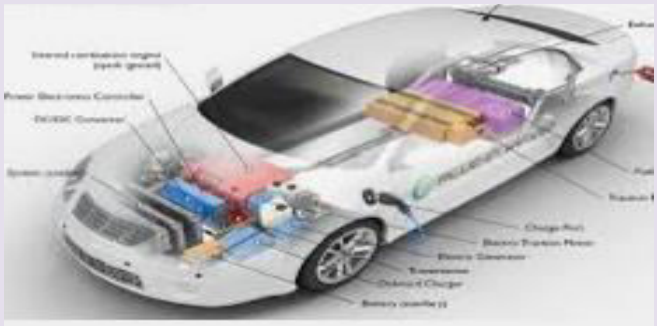
industrial electric system management. The paper discusses on the requirements of new applications and methods that can be used to solve problems in the areas of distribution management and condition monitoring of industrial networks.



A.Ramya

GASOLINE-ELECTRIC HYBRID CAR

A 'gasoline-electric hybrid car' or 'hybrid electric vehicle' is a vehicle which relies not only on batteries but also on an internal combustion engine which drives a generator to provide the electricity and may also drive a wheel. It has great advantages over the previously used gasoline engine that drives the power from gasoline only. It also is a major source of air pollution. The objective is to design and fabricate a two wheeler hybrid electric vehicle powered by both battery and gasoline. The combination of both the power makes the vehicle dynamic in nature. It provides its owner with advantages in fuel economy and environmental impact over conventional automobiles.



Hybrid electric vehicles combine an electric motor, battery and power system with an internal combustion engine to achieve better fuel economy and reduce toxic emissions. In HEV, the battery alone provides power for low-speed driving conditions where internal combustion engines are least efficient. In accelerating, long highways, or hill climbing the electric motor provides additional power to assist the engine. This allows a smaller, more efficient engine to be used. Besides it also utilizes the concept of regenerative braking for optimized utilization of energy. Energy dissipated during braking in HEV is used in charging battery. Thus the vehicle is best suited for the growing urban areas with high traffic. Initially the designing of the vehicle in CAD, simulations of inverter and other models are done. Equipment and their cost

B.Roopasri

UNDER GROUND ELECTRIC TRANSMISSION LINES

The need of underground electric power transmission is becoming more and more of interest to solve the transmission requirements of today and tomorrow. The increasing use of electric power requires higher power ratings, even with improved energy efficiency of devices and loads. The classical technology used for power transmission is overhead line with typical high voltage ratings of 110–800 kV and in some cases even 1200 kV for bulk power transmission. The distribution voltage levels are typically between 10 and 50 kV and are often used in cities and densely populated areas. Underground cables are used since the 1800s, mainly in cities. Today's needs are going toward higher voltage levels and longer distances.

Bheemana Sri Devi

HYBRIDSOLAR-WINDPOWERGENERATION

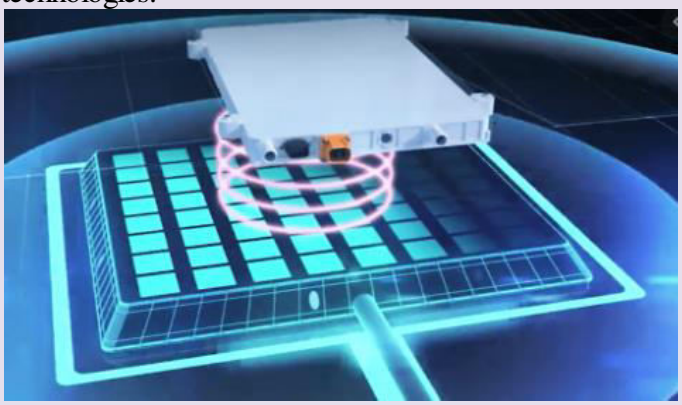
Renewable energy has been on increasing demand in the recent due to over stress on non-renewable resources and their increasing cost. Thus producing electricity with the use of renewable resources like Wind and Solar are needed to be implemented. By using this hybrid system technique any circumstances like power failure then there will be continuous power supply without producing any noise pollution. Since there are both types of input

systems the applications will also be improved. This project is to develop an optimal design of a hybrid wind solar energy plant, where we can use both the sources of energy sources to generate the power with a main goal to minimize the plant establishment cost, to utilize the land used for the same in most suitable way and to give earth a healthy environment by using this renewable sources of energy. The motto of the project is to produce the energy in an eco-friendly way by using renewable sources of energy. This System Include PV Array, Wind Turbine, Aero-Wind Generator, Solar Controller, Wind Controller, Battery Bank , Inverter.

. *B.Jagadeeswari*

WITRICITY

The aim of this paper is to introduce a new system of transmitting the power which is called wireless electricity or witricity. Witricity is based upon coupled resonant objects to transfer electrical energy between objects without wires. The system consists of a Witricity transmitter (power source), and devices which act as receivers (electrical load). It is based on the principle of resonant coupling and microwave energy transfers. The action of an electrical transformer is the simplest instance of wireless energy transfer. There are mainly two types of transfers i.e. short range and long range transmission. The short range are of 2-3metres whereas the long range are of few kilometers. Wireless transmission is ideal in cases where instantaneous or continuous energy transfer is needed, but interconnecting wires are inconvenient, hazardous, or impossible. The tangle of cables and plugs needed to recharge today's electronic gadgets could soon be a thing of the past. The concept exploits century-old physics and could work over distances of many metres. Consumers desire a simple universal solution that frees them from the hassles of plug-in chargers and adaptors. "Wireless power technology has the potential to deliver on all of these needs."With wireless energy transfer, the efficiency is a more critical parameter and this creates important differences from the wireless data transmission technologies.



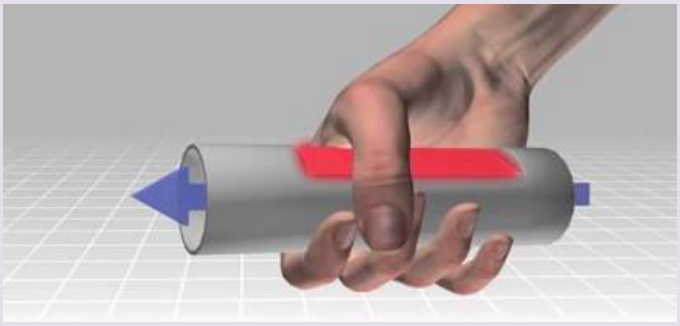
To avoid the conflicts like recharging and carrying its appliances of electrical and electronic devices, wireless power transmission is desirable. Wireless power transmission was originally proposed to avoid long distance electrical distribution based mainly on copper cables. This can be achieved by using microwave beams and the rectifying antenna, or rectenna, which can receive electromagnetic radiation and convert it efficiently to DC electricity. Researchers have developed several technique for moving electricity over long distances without wires. Some exist only as theories or prototypes, but others are already in use. Magnetic resonance was found a promising means of electricity transfer because magnetic fields travel freely through air yet have little effect on the environment or, at the appropriate frequencies, on living beings and hence is a leading technology for developing witricity.

I.Jahnavi Rishika

HOLLOW FLASHLIGHT USING PELTIER EFFECT

The Abstract deals with the proper usage of unused energy generated by humans in the form of heat by making it in glowing a Flashlight. Thereby the Flashlight runs solely on the heat of human palm

without using any batteries. Ann Makosinski of Canada had invented HOLLOW FLASHLIGHT, which won the Google Science Fair. The basic principle of the proposed technology is Peltier Effect. Makosinski's flashlight runs on four Peltier tiles, which convert heat into energy using the temperature differential between a person's hand and the ambient air.



Allu Sai Venkata Sri

SOLAR TREE

The sun is a hydrodynamic spherical body of extremely hot ionized gases(plasma), generating energy by the process of the thermonuclear fusion. The temperature of interior of sun is estimated at 8*10^6 k to 40*10^6 k, where energy is released by fusion of hydrogen and helium. Solar energy is available in abundance and considered as the easiest and cleanest means of tapping the renewable energy. For direct conversion of solar radiation into usable form, the routes are: solar thermal, solar photovoltaic and solar architecture. However the main problem associated with tapping solar energy is the requirement to install large solar collectors requires a very big space. To avoid this problem we can install a solar tree in spite of a no of solar panels which require a very small space.

A.Harsha Kumar

SMART ANTENNA

Smart antennas are antenna arrays or group of antenna with smart processing algorithms used to identify spatial signal signature. A smart antenna takes advantage of diversity effect at the source (transmitter), the destination (receiver), or both. Diversity effect involves the transmission and/or reception of multiple radio frequency (RF) waves to increase data speed and reduce the error rate. Smart antenna technology can overcome these capacity limits as well as improve signal quality and let mobile telephones operate on less power. Smart antenna are also known as adaptive array antennas, MIMO & multiple antennas.

B.RamKireeti

ARTIFICIAL INTELLIGENCE IN POWER SYSTEMS

A continuous and reliable supply of electricity is necessary for the functioning of today's modern and advanced society. Since the early to mid 1980s, most of the effort in power systems analysis has turned away from the methodology of formal mathematical modeling which came from the areas of operations research, control theory and numerical analysis to the less rigorous and less tedious techniques of artificial intelligence (AI). Power systems keep on increasing on the basis of geographical regions, assets additions, and introduction of new technologies in generation, transmission and distribution of electricity. AI techniques have become popular for solving different problems in power systems like control, planning, scheduling, forecast, etc. These techniques can deal with difficult tasks faced by applications in modern large power systems with even more interconnections installed to meet increasing load demand. The application of these techniques has been successful in many areas of power system engineering.

T.Ch.Bhanu Teja

OUTSTANDING ALUMNI