MALLA REDDY ENGINEERING COLLEGE FOR WOMEN

Autonomous Institution – UGC, Govt. of India

Accredited by NBA & NAAC with 'A' Grade

NIRF Indian Ranking, Accepted by MHRD, Govt. of India | Band – Excellent, National Ranking by ARIIA

Maisammaguda, Dhulapally, Secunderabad – 500 010, Telangana

A.Y : 2022-23 VOL.1

Under

Student Chapter IEEE, IETE & Technical Association Electropheenix

ELEKTOR

HALF YEARLY TECHNICAL MAGAZINE

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

E E E

www.mallareddyecw.com

DEPARTMENT VISION

- To develop competitive industry ready electrical engineers by establishing traditions, which will foster creativity and growth of excellence to effectively meet the technological requirements..

DEPARTMENT MISION

- To develop proficiency by imparting application oriented knowledge and inculcate analytical thinking to solve the technological problems associated with analyzing, designing and testing electrical systems.

ABOUT THE DEPARTMENT

The Department of Electrical & Electronics Engineering is accredited by NBA, with an intake of 60 students. The Dept. has state of the art laboratories with latest softwares like MATLAB, ORCAD, SCI LAB, PSPICE and Multisim. We have well qualified faculty members. Several faculty members have received their best teacher awards from institutions of International repute and have been working on research and development projects and regularly publish their work in international journals and conferences. EEE department faculty teams attained patent rights for their technological innovations. The Dept. established IEEE, ISTE student chapters under which it organizes National Level Technical Symposium -FUTURE SASTRA & State Level Technical Symposium- MEDHA every academic year. The Dept. organized National conference on "Emerging Trends in Electrical Systems & Engineering" NCETESE, International Conference on "Emerging Trends in Electrical Systems & Engineering"(ICETESE) every year since 2014, The Dept. organizes Faculty Development Programmes, Refresher courses and workshops in different streams and Student Development Programmes like Workshops, intra college conferences, Industrial visits , Guest lectures and our students actively participate in hackathon programmers conduct at state and National level. Our students are actively participated and won prizes in curricular activities organized by other colleges. The Dept. also organizes regular student seminar sessions of two hours per week for I to IV B.Tech student to enhance their all round performance.

The Dept. also offers value added certification Courses on oxford, Microsoft, CISCO certification through Oxford University, Microsoft Innovation Centre and CISCO Networking Academy respectively. The College Offers Campus Recruitment Training Programmes in collaboration with TIME and FACE Institutions. The Department also publishes the Registered Journal "International Journal of Research in Signal Processing, Computing and Communication-System Design (IJRSCSD) with an ISSN: 2395-3187.

PO'S

PO1	Engineering knowledge	An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and modeling
PO2	Problem analysis	An ability to design, simulate and conduct experiments, as well as to analyze and interpret data including hardware and software components
PO3	Design / development of solutions	An ability to design a complex electronic system or process to meet desired specifications and needs
PO4	Conduct investigations of complex problems	An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.
PO5	Modern tool usage	An ability to use the techniques, skills and modern engineering tools necessary for engineering practice
PO6	The engineer and society	An understanding of professional, health, safety, legal, cultural and social responsibilities
PO7	Environment and sustainability	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and demonstrate the knowledge need for sustainable development.
PO8	Ethics	Apply ethical principles, responsibility and norms of the engineering practice
PO9	Individual and team work	An ability to function on multi-disciplinary teams.
PO10	Communication	An ability to communicate and present effectively
PO11	Project management and finance	An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multi-disciplinary environments
PO12	Life-long learning	A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning

PSO'S

The graduates of the department will attain:

PSO1: Analyze, Design and Implement application specific electrical system for complex engineering problems, Electrical And Electronics Circuits, Power Electronics and Power Systems by applying the knowledge of basic science, Engineering mathematics and engineering fundamentals

PSO2: Apply modern software tools for design, simulation and analysis of electrical systems to engage in life- long learning and to successfully adapt in multi disciplinary environments

PSO3: Solve ethically and professionally various Electrical Engineering problems in societal and environmental context and communicate effectively

PEO'S

PEO1-PROFESSIONAL DEVELOPMENT

To develop in the students the ability to acquire knowledge of Mathematics, Science & Engineering and apply it professionally within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability with due ethical responsibility.

PEO2-CORE PROFICIENCY

To provide ability to identify, formulate and solve engineering problems with hands on experience in various technologies using modern tools necessary for engineering practice to satisfy the needs of society and the industry.

PEO3- TECHNICAL ACCOMPLISHMENTS

To equip the students with the ability to design, experiment, analyze and interpret in their core applications through multi disciplinary concepts and contemporary learning to build them into industry ready graduates.

PEO4- PROFESSIONALISM

To provide training, exposure and awareness on importance of soft skills for better career and holistic personality development as well as professional attitude towards ethical issues, team work, multidisciplinary approach and capability to relate engineering issues to broader social context.

PEO5- LEARNING ENVIRONMENT

To provide students with an academic environment and make them aware of excellence, leadership, written ethical codes and guidelines and the life-long learning to become a successful professional in Electronics and Communication Engineering

MESSAGES

Founder Chairman's Message

Ch. Malla Reddy

Founder Chairman, MRGI
Hon'ble Minister, Govt. of Telangana State

MRECW has made tremendous progress in all areas and now crossing several milestones within a very short span of time and now I feel very happy to know that the students and faculty of the EEE department of MRECW are bringing out the volume-1 of the Technical magazine Elektor in A.Y 2022-23. As I understand this magazine is intended to bring out the inherent literary talents in the students and the teachers and also to inculcate leadership skills among them. I am confident that this issue will send a positive signal to the staff, students and the persons who are interested in the educational and literary activities

Principal's Message

I congratulate the department of EEE, MRECW for bringing out the first issue of the prestigious Q yearly department technical Magazine Elektor in A.Y 2022-23, I am sure that the magazine will provide a platform to the students and faculty members to expand their technical knowledge and sharpen their hidden literary talent and will also strengthen the all round development of the students. I am hopeful that this small piece of literary work shall not only develop the taste for reading among students but also develop a sense of belonging to the institution as well. My congratulations to the editorial board who took the responsibility for the arduous task most effectively. I extend best wishes for the success of this endeavor.

Dr. Y. Madhavee Latha

Principal

HOD'S MESSAGE

It is an occasion of great pride and satisfaction for the department of EEE, MRECW to bring out the first issue of the half yearly of the Technical magazine Elektor in A.Y 2022-23, it gives me immense pleasure to note that the response to the magazine has been over whelming. The wide spectrum of articles gives us a sense of pride that our students and faculties possess creative potential and original thinking in ample measures. Each article is entertaining interesting and absorbing. I applaud the contributors for their stimulated thoughts and varied hues in articles contributed by them.

Dr. S.Vijaya Madhavi

HOD EEE

SCIENTIST OF THE HALF YEAR

Alessandro Volta

Alessandro Giuseppe Antonio Anastasio Volta18 February 1745 – 5 March 1827) was an Italian physicist, chemist and lay Catholic who was a pioneer of electricity and power. who is credited as the inventor of the electric battery and the discoverer of methane. He invented the voltaic pile in 1799, and reported the results of his experiments in 1800 in a two-part letter to the president of the Royal Society. With this invention Volta proved that electricity could be generated chemically and debunked the prevalent theory that electricity was generated solely by living beings. Volta's invention sparked a great amount of scientific excitement and led others to conduct similar experiments, which eventually led to the development of the field of electrochemistry.

Volta also drew admiration from Napoleon Bonaparte for his invention, and was invited to the Institute of France to demonstrate his invention to the members of the institute. Volta enjoyed a certain amount of closeness with the emperor throughout his life and he was conferred numerous honours by him. Volta held the chair of experimental physics at the University of Pavia for nearly 40 years and was widely idolised by his students. Despite his professional success, Volta tended to be a person inclined towards domestic life and this was more apparent in his later years. At this time he tended to live secluded from public life and more for the sake of his family until his eventual death in 1827 from a series of illnesses which began in 1823. The SI unit of electric potential is named in his honour as the volt.

Understanding the Architecture of Smart Grids

The grid is the electrical network that serves every residential, business, and infrastructure service in a city. Smart grid is the next generation of those systems that have been updated with communications technology and connectivity to drive smarter usage of resources . The technologies that make up the IoT-enabled energy grid “smart” include wireless devices like sensors, radio modules, gateways, or routers. These devices help in multiple ways, including sophisticated connectivity and communications. This enables the consumers to make better energy usage decisions while allowing cities to save electricity and reduce expenses. It also provides power to restore after a severe blackout quickly. Read on to learn more about the architectures of IoT in smart grid and their applications

IoT Applications

A key application scenario for the IoT includes a smart home where the users can interact with the smart grid. This helps enhance the smart grid services, meet the marketing demand, control smart appliances, and monitor renewable energy by gathering the power consumption information from the smart meters . The transmission lines can also be monitored to discover possible faults and enable the elimination of the same. IoT can also collect the information and store it as essential data, measure abnormality in the smart grid, analyze the consumption pattern at the consumer end, and exchange the information between the smart meters while monitoring the quality of the electricity. An illustration of a smart grid in action is shown in *Figure 1*.

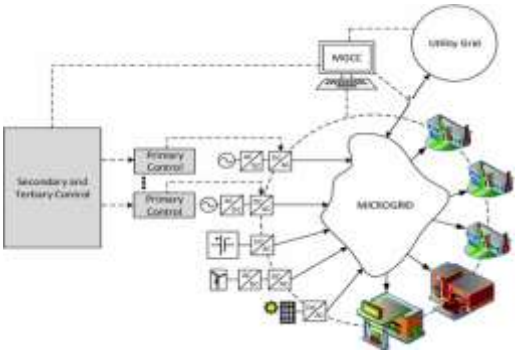
Architectures of IoT in Smart Grid

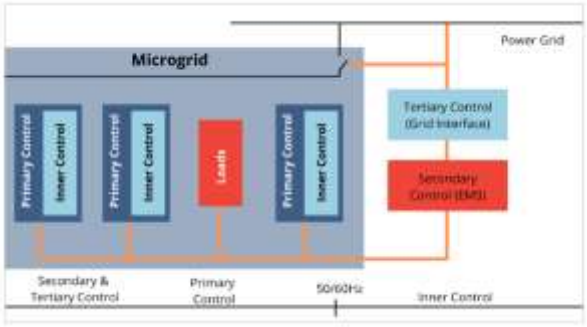
There have been several IoT architectures that have been proposed for integration with the smart grid. Typically, they can be categorized into architectures with three layers or four layers . In a standard three-layer architecture, the first layer includes smart meters, network devices, and communication protocols, the second layer contains devices responsible for receiving the data at the central system, and the third layer comprises artificial intelligent systems to provide information to decision and billing systems.

Mr. V. Brahmam Yadav
Department of EEE

FACULTY ARTICLES

Microgrid Operations and Applications





A microgrid connects to the main grid at a point of common coupling (POCC) that maintains the voltage at the same level as the utility grid unless there is some issue with the main grid or any other reason to disconnect from it. The design can also be such that a switch can separate the microgrid from the main grid automatically or manually so that it can function independently as an island. This is illustrated in Figure 1. The core components of a microgrid include a power source, power management system, intelligent controls and energy storage system.

Microgrid control is all about sharing power among multiple energy sources while maintaining stability. The control hierarchy includes primary or inner control embedded in the microgrid along with secondary and tertiary controls designed for interfacing with the main grid and communication purposes, as illustrated in Figure 2. Primary control is local to the microgrid. Secondary and tertiary control aspects form the central control system, requiring communication and limiting flexibility while adding complexity and additional costs. It is a plug-and-play type that enables autonomous primary control with very minimal or no secondary and tertiary control. The simulation of microgrids can be accomplished using the hardware-in-the-loop technique. The individual units employed for power generation can be modeled adequately. The power or control interface can be simulated using a simulator, while the rest of the system can be simulated in real-time Physical systems can be simulated with localized controls and additional system-level secondary and tertiary controls to emulate the complete microgrid behavior.

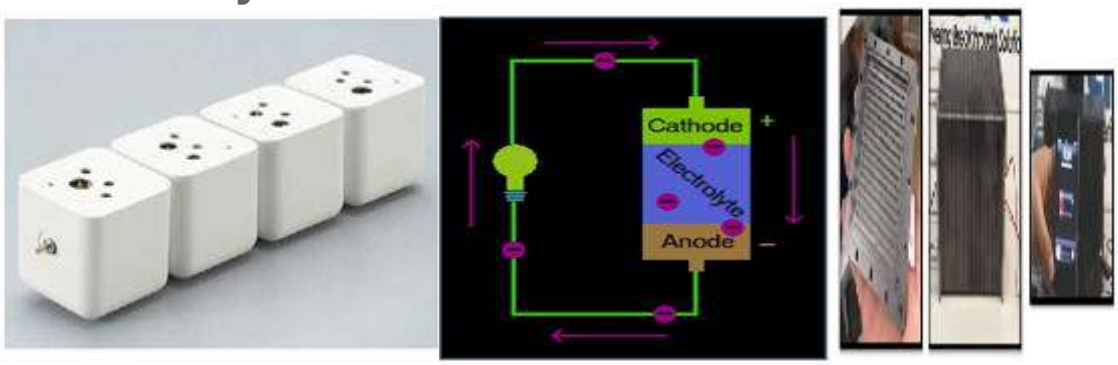
Microgrid Applications

As microgrids transfer the control to users and help them achieve energy independence. Traditionally, microgrids have been employed in remote locations that cannot be connected to the central power grid and serve critical infrastructure. However, due to the recent advancements in technology and increased usage of renewable energy sources, microgrids have become more accessible and economically feasible. Microgrids can be employed in organizations that intend to lower their energy cost, require huge amounts of reliable energy, and for those that pursue sustainability. These are accomplished because when power is generated in-house, the lowest cost fuel sources can be employed for power generation, and costs due to power outages can be effectively eliminated.

Mrs. L. Jayavani
Department of EEE

STUDENT ARTICLES

Bio Battery



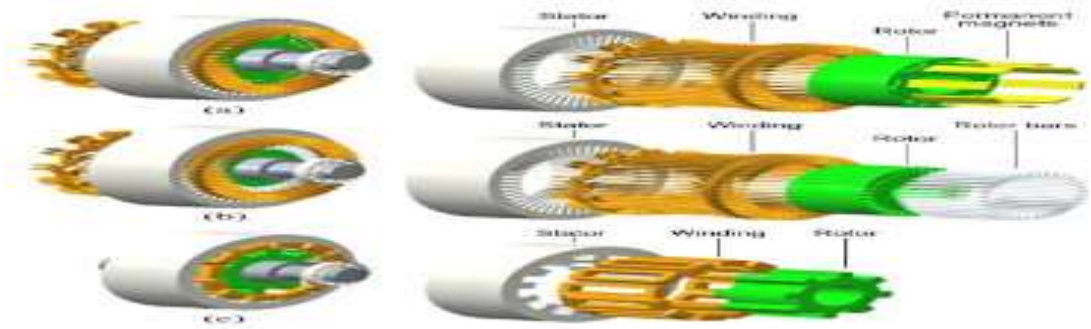
The Bio batteries are High performing, stable, and reproducible enzymatic fuel cell technology developed over last 5 years. The Scaled-up demonstration of Bio-Battery powering electronic circuit (performed at both Power Sources and Army Science Confs). Fully-integrated Bio-Battery charging prototypes are already developed. Funding secured from multiple Department of Defense (DOD) agencies for multiple target applications over the next 3-5 years.

While many exciting announcements have been made in the field of bio-batteries, it may be some time before we see them replacing nickel-cadmium, lithium-ion or the several other types of traditional batteries. Even so, the small, flexible, long lasting and environmentally friendly battery technologies discussed here show the great possibilities researchers see in bio-batteries, especially for the field of medicine The technology generates electricity by turning shredded paper into sugar which in turn is used as fuel. If brought to market, their mobile devices using waste material. Compared to conventional batteries, such as lithium batteries, bio-batteries are less likely to retain most of their energy. This causes a problem when it comes to long term usage and storage of energy for these batteries. However, researchers are continuing to develop the battery in order to make it a more practical replacement for current batteries and sources of energy.

The bio-batteries are environmentally friendly as they did not use harmful chemicals or metals. . With that in mind, scientists seem to be exploring every possible option in bio-battery and fuel-cell technology .They serve as a new form of energy that is proving to be environmentally friendly, as well as successful, in producing and reserving energy. Although the batteries are still being tested before being commercially sold, several research teams and engineers are working to further advance the development of these batteries.

N.Manaswini
20RH1A0222
III EEE

Electrical Machines in Electrified Transportation



The efficiency and performance of electric machines significantly impact the fuel consumption, acceleration, high-speed performance, and driving comfort of the electrified powertrains. The electric traction motors have stringent operational requirements concerning torque-speed characteristics. City driving demands operation at medium speed range, whereas highway driving requires high-speed range.The traction motor must provide high efficiency at its most frequent operating points to improve the overall powertrain efficiency and fuel consumption. In addition to the vehicle platform, engine size, drive cycles, volume, weight, lifetime, and cost constraints, various other parameters including torque-speed characteristics, peak-power requirements, and thermal, structural, and noise vibration harshness (NVH) conditions define the selection of the right electric machine for the application at hand. These selections also affect the machine design process, from selecting the core and insulation material to permanent magnets, the number of poles, winding configuration, and assembly, manufacturing process, etc.

AC motor drives form a crucial part of the transportation electrification sector. The study of electric machines includes the understanding of AC machine operation and modeling of critical electric machines like permanent magnet synchronous machines and induction machines. The other aspect to look into is the DC-AC inverter operation and controls, along with AC drive modeling and simulations. The more efficient and higher performance electric traction motors improve the use of electrical mode. The engine runs closer to peak efficiency, leading to lower fuel consumption and higher all-electric range in EVs.

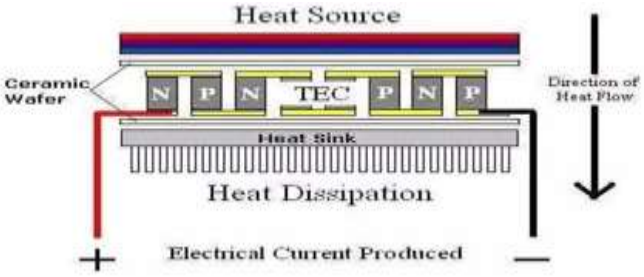
Electric Machines in Electrified Transportation

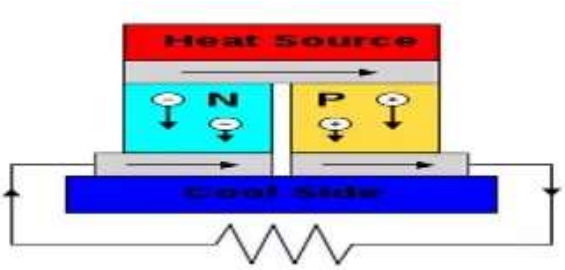
The use of the right electric machines is inevitable for the effective operation of electrified transportation. There are several types of electric machines used in powertrains, and it depends on the specifications, performance, and application at hand. Some of the key electric machines used in automotive applications include interior permanent magnet synchronous machines (IPMSM), induction machines (IM), and switched reluctance machines (SRM). The typical electric machine types employed for traction applications are shown in *Figure 1* .

SRM is known to have the simplest, most robust, and lowest cost structure compared to IPMSM and IM. It typically has a salient pole structure made of laminated silicon steel. In this case, the torque production is based on the change of magnetic reluctance. The key disadvantage of conventional SRM is the significant torque ripples and lower power density. Currently, SRM is not used in any major hybrid or EVs on the market as the traction motor.

Navyasri Sandanala
20RH1A0223
III EEE

Power generation through Thermoelectric generators



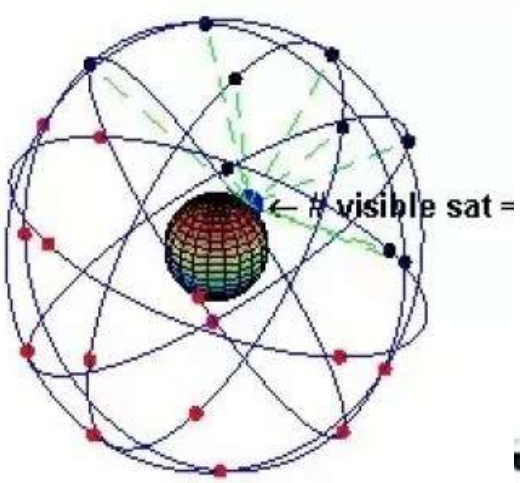


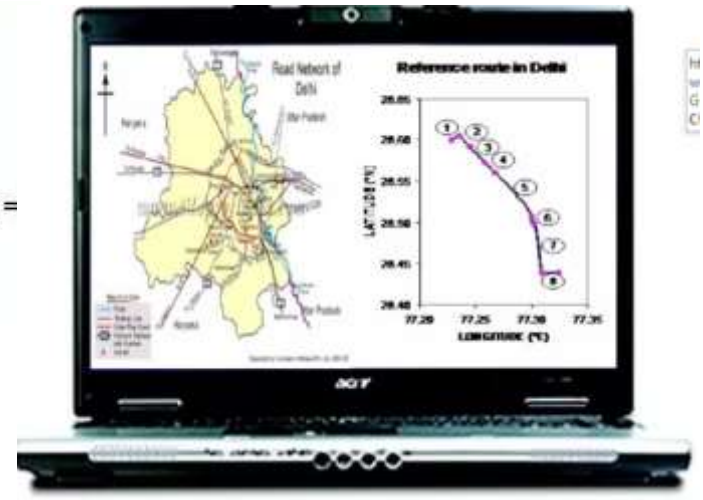
Thermoelectric generators are devices which convert heat directly into electrical energy, using a phenomenon called the Thermoelectric effect(Seebeckeffect).**TEG** uses a phenomenon called Seebeck effect. Seebeck is the conversion of temperature differences directly into electricity. Seebeck discovered that a compass needle would be deflected when a closed loop was formed of two metals joined in two places with a temperature difference between the junctions. This is because the metals respond differently to the temperature difference, which creates a current loop, which produces a magnetic field. Seebeck, however, at this time did not recognize there was an electric current involved, so he called the phenomenon the thermomagnetic effect, thinking that the two metals became magnetically polarized by the temperature gradient. The Danish physicist Hans Christian played a vital role in explaining and conceiving the term “thermoelectricity”. This electric field, however, opposes the uneven scattering of carriers, and an equilibrium is reached where the net number of carriers diffusing in one direction is cancelled by the net number of carriers moving in the opposite direction from the electrostatic field. This means the thermopower of a material depends greatly on impurities, imperfections, and structural changes (which often vary themselves with temperature and electric field), and the thermopower of a material is a collection of many different effects.

Early thermocouples were metallic, but many more recently developed thermoelectric devices are made from alternating p-type and n-type semiconductor elements connected by metallic interconnects as pictured in the figures below. Semiconductor junctions are especially common in power generation devices, while metallic junctions are more common in temperature measurement. Charge flows through the n-type element, crosses a metallic interconnect, and passes into the p-type element. If a power source is provided, the thermoelectric device may act as a cooler, as in the figure to the left below. This is the Peltier effect, described below. Electrons in the n-type element will move opposite the direction of current and holes in the p-type element will move in the direction of current, both removing heat from one side of the device. If a heat source is provided, the thermoelectric device may function as a power generator, as in the figure to the right below. The heat source will drive electrons in the n-type element toward the cooler region, thus creating a current through the circuit. Holes in the p-type element will then flow in the direction of the current. The current can then be used to power a load, thus converting the thermal energy into electrical energy.

Riya sahu
20RH1A0236
III EEE

Location Based Services using Global Positioning System





Location Based Services (LBS) are offered based on user's geographical location provided by positioning technology such as Global Positioning System, and with the help of Geographical Information Systems. This post explains about the uses of Location based services in day today life .Location based technology find its way in a variety of applications such as wireless location services, Geographic Information Systems (GIS), surveillance, navigation, military equipment tracking, and many more. Location based service or LBS is the capability to find the geographical location of the mobile user and then provide services based on this location information. Advertisement through GPS or LBSs will open a new market for developers to develop and deploy value-added services. As shown in figure-1, LBS offer a two-way communication system between user and service provider. Therefore the user tells the service provider his actual context like the kind of information he needs, his preferences and his position. This helps the provider of such location services to deliver information tailored to the user needs. So in finding the location global positioning system (GPS) plays a major role. GPS is a worldwide satellite navigational system formed by a constellation of 24 earth orbiting satellites. The satellites orbit the earth at approximately 20,000 kilo meters above the surface and make two complete revolutions every 24 hours. The GPS satellites continuously broadcast navigation message and code signals of a Standard Positioning Service (SPS). By using navigation message from more than four satellites, GPS receivers calculate their own location.

A) GPS USED AS TRAVEL GUIDEAs GPS devices become more prevalent and the technology comes of age, it is beginning to redefine certain industries. One such industry that is not afraid to try something new is tourism. Using GPS, a traditional tour led by a human guide can be replaced with an automated mechanism that routes the user to a location and then presents media information about the location.

B) GPS USE IN SHOWING DIRECTION A visual example of the GPS constellation in motion with the Earth rotating. Notice how the number of satellites in view from a given point on the Earth's surface, in this example at 45° N, changes with time. Geographic Information System (GIS), also known as a geographical information system or geo-spatial information system, is a system for capturing, storing, analyzing and managing data and associated attributes which are spatially referenced to the Earth

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III EEE

Electric car

An **electric car**, **battery electric car**, or **all-electric car** is an automobile that is propelled by one or more electric motors using only energy stored in batteries. Compared to internal combustion engine (ICE) vehicles, electric cars are quieter, have no exhaust emissions, and lower emissions overall. In the United States and the European Union, as of 2020, the total cost of ownership of recent electric vehicles is cheaper than that of equivalent ICE cars, due to lower fueling and maintenance costs. Charging an electric car can be done at a variety of charging stations; these charging stations can be installed in both houses and public areas. Worldwide, 6.6 million plug-in electric cars were sold in 2021, more than doubling 2020 sales, and achieving a market share of 9% of the global new car market.[1] All-electric cars represented 71% of plug-in car sales in 2021 As of December 2021, 16 million plug-in electric cars were on the world's roads. Many countries have established government incentives for plug-in electrical vehicles, tax credits, subsidies, and other non-monetary incentives while several countries have legislated to phase-out sales of fossil fuel cars to reduce air pollution and limit climate change. The Tesla Model 3 became the world's all-time best-selling electric car in early 2020 and in June 2021 became the first electric car to pass 1 million global sales. Earlier models with widespread adoption include the Japanese Mitsubishi i-MiEV and the Nissan Leaf. **Modern electric cars**In the early 1990s the California Air Resources Board (CARB) began a push for more fuel-efficient, lower-emissions vehicles, with the ultimate goal of a move to zero-emissions vehicles such as electric vehicles. In response, automakers developed electric models. These early cars were eventually withdrawn from the U.S. market, because of a massive campaign by the US automakers to discredit the idea of electric cars. California electric-auto maker Tesla Motors began development in 2004 of what would become the Tesla Roadster, first delivered to customers in 2008. The Roadster was the first highway-legal all-electric car to use lithium-ion battery cells, and the first production all-electric car to travel more than 320 km (200 miles) per charge.

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J.Marshitha
20RH1A0212
III EEE

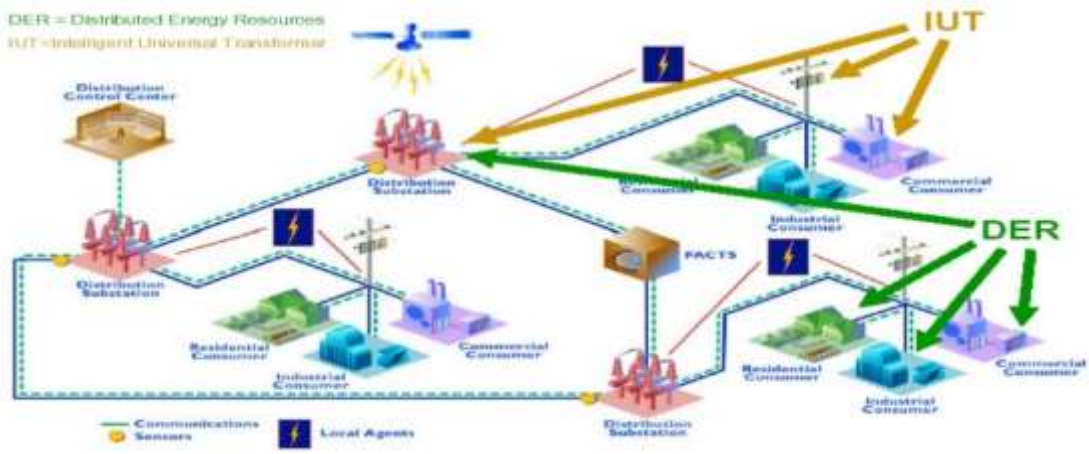
Monorail

Monorail Technology: Mono' is the Greek numeral prefix for one. 'Rail' indicates the type of track structure utilized. A **single rail** serving as a track for passenger or freight vehicles. In most cases rail is elevated, but monorails can also run at grade, below grade or in subway tunnels. Vehicles are either suspended from or straddle a narrow guide way. Monorail **vehicles are wider than the guide way** that supports them. The primary advantage of monorails over conventional rail systems is that they require minimal space, both horizontally and vertically. Monorail vehicles are wider than the beam, and monorail systems are commonly elevated, requiring only a minimal footprint for support pillars. A monorail track is usually less expensive to build than a comparable elevated conventional rail line of equal capacity. Due to a smaller footprint they are seen as more attractive than conventional elevated rail lines and block only a minimal amount of sky. Monorail is, by design, a grade-separated system. They do not interfere with existing transport modes.They are quieter, as modern monorails use rubber wheels on a concrete track. Modern monorails depend on a large solid beam as the vehicles' running surface. There are number of competing designs divided into two broad classes, straddle-beam and suspended monorails MMRDA proposes to implement a proven and established Monorail System in various parts of Mumbai Metropolitan Region (MMR). It is proposed to initially take up implementation of about 20 kms Monorail System from Sant Gadge Maharaj Chowk Wadala Chembur station as a Pilot Project. Completion period of the full project is 30 months.

A monorail is a rail-based transportation system based on a single rail, which acts as its sole support and its guideway. The term is also used variously to describe the beam of the system, or the vehicles traveling on such a beam or track. The primary advantage of monorails over conventional rail systems is that they require minimal space, both horizontally and vertically. Monorail vehicles are wider than the beam, and monorail systems are commonly elevated, requiring only a minimal footprint for support pillars. A monorail track is usually less expensive to build than a comparable

B.Himabindu
20RH1A0202
III EEE

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. Industrial plants have put continuous pressure on the advanced process automation. However, there has not been so much focus on the automation of the electricity distribution networks. Although, the uninterrupted electricity distribution is one basic requirement for the process. A disturbance in electricity supply causing the “downrun” of the process may cost huge amount of money. Thus the intelligent management of electricity distribution including, for example, preventive condition monitoring and on-line reliability analysis has a great importance. Nowadays the above needs have aroused the increased interest in the electricity distribution automation of industrial plants.

The automation of public electricity distribution has developed very rapidly in the past few years. Very promising results has been gained, for example, in decreasing outage times of customers. However, the same concept as such cannot be applied in the field of industrial electricity distribution, although the bases of automation systems are common. The infrastructures of different industry plants vary more from each other as compared to the public electricity distribution, which is more homogeneous domain. The automation devices, computer systems, and databases are not in the same level and the integration of them is more complicated.

B.Sindhu
20RH1A0202
III EEE

EEE PLACEMENT DATA 2019-23 BATCH

Sl. No	HT. No	Name	Company Placed
1	19RH1A0201	ALUGUBELLI SIRI	DXC Technology, HCL Technology, Genc
2	19RH1A0202	ANKU KUMARI	DXC Technology, Accenture
3	19RH1A0204	BANNE HARSHITHA	HCL Technology, GenC, Accenture
4	19RH1A0205	BANOTH KUNDANA	HCL Technology, GenC, Accenture
5	19RH1A0206	BHATLAPENUMARTHI ASRITHA SRI BHANU	HCL Technology
6	19RH1A0208	BOBBA NAGA ANKITHA	DXC Technology
7	19RH1A0209	BOBBILI TULASI	HCL Technology
8	19RH1A0210	KEERTHI.BODLA	DXC Technology. HCL Technology, GenC, Accenture
9	19RH1A0211	BOGA. KEERTHANA	DXC Technology, HCL Technology, GenC
10	19RH1A0212	SINDHU BOMMA	DXC Technology
11	19RH1A0213	BOMPALLY SREEYA	DXC Technology, HCL Technology, GenC, Accenture
12	19RH1A0214	YAMINI CHERUKURI	DXC Technology, HCL Technology, GenC, Accenture, TCS
13	19RH1A0216	DHARMAPURI KOUSALYA	DXC Technology, Accenture
14	19RH1A0217	LAVANYA DIRISALA	DXC Technology, HCL Technology, GenC, Accenture
15	19RH1A0218	SAI SUDHA DONIPALLI	HCL Technology
16	19RH1A0221	GUDELLI LAHARIKA	DXC Technology
17	19RH1A0222	GUMMADI AARTHI	HCL Technology, GenC, Accenture
18	19RH1A0223	VARSHITHA GUNIGANTI	HCL Technology
19	19RH1A0225	JARUPULA SHAILU	DXC Technology, Accenture
20	19RH1A0226	MANASAJUVVAJI	**Value Momentum**
21	19RH1A0227	KAMMARI NIHARIKA	HCL Technology, GenC
22	19RH1A0228	PRIYANKA KEESARI	DXC Technology, HCL Technology
23	19RH1A0229	KETHAVATH YAMINI	Accenture
24	19RH1A0230	KOMPELL VENKATA SUBBALAKSHMI	DXC Technology, HCL Technology, Accenture, TCS

25	19RH1A0231	KOTAGIRI VASAVI	DXC Technology
26	19RH1A0232	KOTHASAI SOWBHAGYA LAKSHMI	Accenture
27	19RH1A0234	MALOTH HIMA BUNDU	DXC Technology
28	19RH1A0235	MAMIDI MOUNIKA	DXC Technology, GenC, Accenture
29	19RH1A0236	RUCHITHA MEDI	DXC Technology
30	19RH1A0237	MIRYAL AKHILA	DXC Technology, GenC, Accenture
31	19RH1A0238	MODUGU NIKITHA	DXC Technology
32	19RH1A0239	SUPRIYA MOTHUKOORI	Accenture
33	19RH1A0240	MUDAVATH AMEENA	DXC Technology, Accenture
34	19RH1A0242	M.DEEPTHI	PROLIFICS
35	19RH1A0243	NAGENDLA DRAKSHAYANI	HCL Technology, TCS
36	19RH1A0244	NARA SHRAVANI	DXC Technology
37	19RH1A0245	POGULA SHARMILA	DXC Technology, GenC
38	19RH1A0246	YOCHANA RAJAN	DXC Technology, HCL Technology, GenC, Accenture, TCS
39	19RH1A0247	SANJANNAGARI SRIVIDHYA	HCL Technology
40	19RH1A0248	SALIGANTI ANUSHA	GenC, Accenture, TCS
41	19RH1A0250	AKANKSHA REDDY SAREDDY	DXC Technology, HCL Technology
42	19RH1A0251	DRUVI SHIHORA	DXC Technology, Accenture
43	19RH1A0252	SAI ESWARI SIDDU	DXC Technology, HCL Technology, TCS
44	19RH1A0253	RAMYA MANASA SOMAGUTTA	DXC Technology, HCL Technology, GenC, Accenture
45	19RH1A0255	THANDU MAMATHA	DXC Technology
46	19RH1A0257	VATTEPU PRASANNA	DXC Technology
47	19RH1A0258	NAGA SUSHMA VEMULA	Menter Graphics, DXC Technology, HCL Technology, GenC
48	20RH5A0201	SANJANA SAI ERALA	DXC Technology, HCL Technology, Accenture
49	20RH5A0202	AISHWARYA GAJANAVENI	HCL Technology
50	20RH5A0204	KUNJA SAI SHIVANI	HCL Technology
51	20RH5A0205	ARCHANA THOTAPALLY	DXC Technology,
52	20RH5A0206	TUNIKI RAMYASRI	Accenture

MEMORABLE EVENTS

MRECW GO GREEN 2K22

MRECW MEDHA 2022

Leek Code Training for III YEAR EEE Students.

MRECW Bathukamma Festival Celebrations 2022

IMPORTANT WEBSITES

- http://www.electrical4u.com
- www.allaboutcircuits.com
- www.powerstream.com
- www.ciruitlab.com
- www.ieee.org
- www.falstad.com
- www.pcbheaven.com
- www.electrical-engineering-portal.com
- www.electronics.wisc-online.com
- www.allaboutcircuits.com
- www.gutenburg.com
- www.guruengineers.com
- www.electro-tech-online.com
- http://www.infocobuild.com/education/audio-video-courses/electronics/electronics-and-electrical-engineering.html

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