VIDYUT

EDUCATION AND TECHNOLOGY

DEPARTMENTAL NEWSLETTER

2022

RECENT TRENDS IN ELECTRICAL & ELECTRONICS ENGINEERING

INTERVIEW WITH ALUMNI / INDUSTRY PERSON

AN INSIGHT TO DEPARTMENTAL ACTIVITIES IN EEE BRANCH

DEPARTMENT OF ELECTRICAL AND ELCTRONICS ENGINEERING

GEC RAIPUR

‘A Word from the Head of Department’

It’s a great pleasure that the newsletter for session 2021-22 has come up with all the achievements of the EEE students. At the same time, I wish that the students will be encouraged to see theirs success story in newsletter and also be encouraged to set their targets in carrier building through participation in various activities conducted either by department or students.

I congratulate to editorial team of newsletter for their great effort in bringing the beautiful magazine and shall work to motivate the student’s by organizing the various competitive events. I also wish that the students will come up with their limit less capability by doing hard work throughout the program tenure.

Dr. R. S. Parihar
Professor & HOD
Department of EEE
NGEC, Raipur

‘A Word from the Faculty Advisor’

“All power is within you; you can do anything and everything. Believe in that, do not believe that you are weak. Stand up and express the divinity within you.”

- Swami Vivekanand.

Beliefs and intentions manifest your reality.

It’s a matter of great pride that students of EEE department, GEC Raipur have come up with the Newsletter for the session 2021-22. This year’s newsletter comes with the success stories of EEE department in terms of improvement in placement of the students, talents of our students, their achievements and complete summary of the happenings in the department. The purpose of publishing of the newsletter is to remind ourselves that there is so much potential in everyone of us which can be witnessed through the testimony of achievements.

I want to congratulate the editorial team of VIDYUT for putting in so much of hard work and commitment. Their sincerity truly reflects in the newsletter. I wish the students of the department all success in their endeavors.

Faculty Advisor

Professor Poorva Sharma

Department of EEE

NGEC, Raipur

‘A Word from The Editors’

It is honour for me being in the editorial team of departmental newsletter volume 3. Publishing of departmental newsletter is one of the great idea to establish a strong connection between students and the department. All the team members are great personality, it was exciting for me to play role in editorial team with them. I am very thankful to Hod, Professor R.S. Parihar and Faculty advisor, Professor Poorva Sharma for giving me this opportunity. From content collection to content drafting and designing I have learned a lot, specially researching about recent trends in EEE enhanced my knowledge. I have spent countless hours designing this newsletter. To make it interactive and better, I have tried my best to bring something new in it. I hope the readers like it and get to learn something new along with the information.

ANIL KUMAR KOSLE

(NGEC RPR-EEE-VI SEM)

I am thankful to respected Professor Poorva Sharma ma’am for giving me the opportunity to be a part of newsletter editorial team. Editing the departmental activities that helps in overall development of a student is a matter of great pleasure for me. While collecting the information for departmental newsletter I also gathered a lot knowledge and my experience is wonderful.

VIJAYLAXMI SAHU

(NGEC RPR-EEE-VI SEM)

‘A Word from The Editors’

I have read somewhere **" Learning is not the product of teaching Learning is the product of the activity of learners ".**

and I have got the opportunity to learn new things by participating in Departmental team activity of creating annual newsletter. I am passionate about creating, collecting and editing of contents. This opportunity helped me to sharpen my skills in this field. In Departmental Newsletter Volume - 3 I got the chance to collect and edit the contents related to interview and others and for these all, interacting with knowledgeable seniors, super seniors, alumni and industry experts was very insightful for me. I have great experience working with editing team under the guidance of Miss Poorva Sharma. I am very thankful to Department for this nice opportunity.

DEEPAK KUMAR

(NGEC RPR-EEE-VI SEM)

It is a great honour to be a part of the editorial team of the departmental newsletter along with my seniors. I gathered a lot of knowledge while collecting information for the newsletter. Volunteering for a departmental activity was a great learning experience for me. This work has been very interesting, enjoyable and wonderful, for which I am deeply grateful to our Respected Professor Poorva Sharma.

ANUBHAV SATPATHI

(NGEC RPR-EEE-IV SEM)

FACULTY MEMBERS IN EEE DEPARTMENT, 2021-22

Dr. R.S. Parihar

Professor & H.O.D

Ms. Dewashri Pansari

Assistant Professor

Ms. Poorva Sharma

Assistant Professor

Dr. Ashiwani Yadav

Assistant Professor

Mr. Abhay Shukla

Assistant Professor

Mr. Ishwar Singh Chandra

Assistant Professor

Ms. Pragya Singh

Assistant Professor

Mr. Sheshnarayan Dewangan

Assistant Professor

Mrs. Pratibha Shukla

Assistant Professor

Mrs. Shivani Mishra

Assistant Professor

CONTENT

Vision & Mission

Vision

To be a centre of excellence in the field of Electrical & Electronics Engineering and prepare proficient Engineers with ethical values for sustainable development of the nation.

Mission

MD1: Impart core fundamental knowledge, skills, creativity for higher education and future career prospects through innovative teaching learning methodology.

MD2: Prepare socially responsible Engineers to serve the future needs and challenges of the society.

MD3: Create a platform for research-oriented activities with the help of industrial collaborations.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1: Graduates will have effective problem solving skills to analyse, design and provide innovative solutions using fundamental engineering principles and modern tools.

PEO2: Graduates will contribute successfully to the society as professionals having high moral conduct and adaptable to changing trends through lifelong learning.

PEO3: Graduates will possess the qualities of leadership, teamwork, effective communication and self-learning for working in diverse fields adhering to their social and ethical responsibilities.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Graduate will be able to apply core concepts of electrical engineering for the purpose of design, installation, operation, control, testing and maintenance of electrical equipment's and systems.

PSO2: Graduate will be able to undergo research and development activities with the help of hardware- software co-design.

PROGRAM OUTCOMES (POs)

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

PO2: Problem analysis: Identify, formulate, review research literature, and analyse complex electrical engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/development of solutions: Design solutions for complex electrical engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex electrical engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the electrical and electronics engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Go Green Competition 2021

Regardless of wherever you go, people across the globe are now focusing on going green since it positively impacts the plant. From plastic bag recycling to the treatment of chemical products, people are trying to come up with new and useful ways that are sustainable and useful in helping the world go green.

Our planet is growing at a rate that is not sustainable, it's expected that the world's population will hit 9.8 billion people by 2050, we'd need two planets to support our current consumption, and it's why the move to go green is more important than ever.

To educate students about Go Green EEE Department held Best Environmentalists Competition which had been conducted on three categories: -

1. **Planting Trees.**
2. **Make a Difference**
3. **Go green Ideas / Projects**

Here is the list of winners for different categories under Best Environmentalists Competition: -

Best Environmentalists Competition

1. Planting Trees

Anisha Paul (EEE 6th Sem)

"Work From Home or Plantation from home to change the world we need to start from the home "with this nice message Anisha Paul has planted many trees in her house during covid period. She also suggested us how we can make the world cleaner and more beautiful by small steps.

Prakashini Divya (EEE 6th Sem)

Prakashini Divya has planted 5 trees under planting Trees competition and gave a message for plantation to all the students and how we can help to protect our environment by planting Trees.

2. Make a Difference

Deepak Kumar & Tukeshwar Sahu (EEE 4th Sem)

"Someone Is sitting in the shade today because someone planted a tree a long time ago" -*Warren Buffet*

By proving this quotation Deepak and Tukeshwar has created a short video for make a difference and tried to spread awareness about plantation and Go Green. Their video showed how plantation by one person can help the whole community or country so we shouldn't think that what will happen by doing single person (by ourselves only). One plantation by you today will produce thousands of new trees.

3. Go Green Ideas / Projects: -

Ankit Banjare

(EEE 6th sem)

Ankit Banjara has submitted 5 Go Green Project Ideas that can protect and heal the Environment. Following the lists of his ideas: -

1. Saving Aquatic Life and Fighting Water Pollution with IoT & AI
2. Building Smart Cities with Less Noise Pollution
3. Logifox: The End of E-Waste Has Arrived
4. Atmospheric Air Analyzer
5. Reuse Plastic for 3D-Printing

These sustainable technologies can help to make our earth greenery.

GATE 2022 Results

The Graduate Aptitude Test in Engineering (GATE) is a computer-based standardized test conducted at the national level in India with an aim to examine the understanding of various engineering and science undergraduate subjects.

Qualifying in the GATE exam is a mandatory requirement for the engineering graduates who are seeking admissions and/or financial assistance to the Postgraduate Programs like Master's and Doctoral with the Ministry of Education (MoE) and other Government Scholarships / Assistantships that are subject to the admission criteria of the institutes GATE exam results are also used by some of the Public Sector Undertakings (PSUs) for their recruitment procedure.

Some of our bright students who have qualified **GATE 2022** are:

Name of the student	Examination paper	GATE Score	GATE Rank
Vimalchand Sahu	EC	375	6069
Vimalchand Sahu	EE	335	10589
Deepa Gupta	EE	321	11608
Kamlesh Verma	EC	533	1587
Himanshu Yadu	EE	332	10829
Akansha Bhagat	EE	300	13239

Placement!

Record EEE Department year 2021-22

The vision of TPO cell is to enable the students to be able to reduce the gap between the technical education imparted to them and the industry needs and ensure a place for themselves in the world so that they can thrive in their career with good professional etiquette. Every year TCS, Infosys, Essencher and other private companies BMW, Mercedez also visited for campus selection in the institute.

In the 2019 batch first time MEGA PLACEMENT was organised within the campus. 55 companies were invited in the campus placement and all the three GEC's (Raipur, Bilaspur and Jagdalpur) took actively part in it.

For this year's placement Drive our placement coordinators are –

Chief TPO – Prof. Dr. R.H.Talwekar

Placement coordinators:

1. Mr. Bhavyavesh Sahu (Mechanical)
2. Mrs. Chetna Sinha (Et & T)
3. Ms. Poorva Sharma (EEE)
4. Mrs. Preeti Rajput (Civil)
5. Mr. Ganeshram Banjare (CSE)

Name of students placed in various companies:

S.No.	Name	Gender	Company	Package (LPA)
1.	Gunjan Kumari	F	Hexaware Technologies	4
2.	Amartya Sharma	M	Hexaware Technologies	4
3.	Amartya Sharma	M	TCS (Off campus)	3.5
4.	Amartya Sharma	M	ITC Infotech	4.25
5.	Tanmay karmakar	M	TCS	3.5
6.	Kriti Shrivastava	F	ITC Infotech	4.25
7.	Kriti Shrivastava	F	NPTC (Off campus)	6.89
8.	Kriti Shrivastava	F	Capgemini (Off campus)	4
9.	Kriti Shrivastava	F	Infosys (Off campus).	3.6
10.	Advaita Upadhyay	M	Amicus Technology	4
11.	Advaita Upadhyay	M	ITC Infotech	4.25
12.	Ravi Taram	M	NMDC	3.6
13.	P. Shreenidhi	F	Hexaware Technologies	6
14.	P. Shreenidhi	F	Capgemini (Off campus).	4
15.	P. Shreenidhi	F	ITC Infotech	4.25
16.	Vimal Chand Sahu	M	Jayaswal Neco	4
17.	Bhupendra Yadav	M	Jayaswal Neco	4
18.	Himanshu Yadu	M	Jayaswal Neco	4
19.	Aadil Ashraf Khan	M	Jayaswal Neco	4
20.	Soumya Chandrakar	F	Infosys (Off campus)	3
21.	Mohit Kumar Gupta	M	Adira Innovations	NA
22.	Harish Kumar	M	MSP Group	3

Students Participation & Achievements in various field

NSS

National Service Scheme (NSS) is an Indian government-sponsored public service program conducted by the Department of Youth Affairs and Sports of the Government of India. NSS is an organization, where a volunteer with his concealed talents is born many a times in different ways unearthing every time a new person in himself. A volunteer gets plethora of opportunity to blossom in the burgeoning aura provided within the unit. NSS in its broad sense teaches directly or indirectly all the qualities which one needs to acquaint for his/her for the voyage of life. NSS not just aims at social upliftment but also personality development of volunteers who are going to be country's future work force. Thus, building a better citizen of coming tomorrow who are more sensitive towards the challenges of our society through community services done under national service scheme.

Yoga Marathon

The idea of international yoga day was first proposed by Honourable prime minister

Mr. Narendra Modi on September 27, 2014 during his speech at the UN General assembly, where a resolution to establish June 21 as international yoga day was introduced by India's ambassador Ashoke Kumar Mukherji. On the occasion of international yoga day, a yoga marathon program was organised from June 1 to June 21 by NSS unit in the Campus, in which students have actively participated.

Village Camping

NSS unit conducted a 7 days camp in villages Khilora and Dhusera. Camp aim was to reach the rural youth of Bharat and reconnect them to main stream in every aspect also to learn from the diverse culture of village and overall development of volunteers.

Key highlights of the camp –

- Prabhat pheri and jagrukta rallies.
- Cultural program on opening day and closing day.
- Talking with villagers over different rural problems.
- Self-defence cl asses for students.
- Plantation activities.

Shiksha Mitra

By NSS unit a Shiksha Mitra program was organised in Government Higher secondary school Sejbahar under the guidance of officer Prashant Sahu sir in which 23 volunteers are participated. The purpose of Shiksha Mitra program is to give carrier guidance to students regarding various competitive exams after 12th standard. For helping students by donating old books NSS unit initiated a Helping Hand (Book Donation Drive) under Shiksha Mitra.

Other Activities

Save Soil Campaign

Football Team

Cricket Team

Cricket Team

List of Students Participated

S.no.	Name of students	Year
1	Pragati Bharti.	4th
2.	P Shreenidhi	4th
3.	Tanmay karmakar	4th
4.	Niharika dhruw	4th
5.	Prachi Sahu	4th
6.	Gunjan Kumari	4th
7.	Soumya chandrakar	4th
8.	Mohit Kumar Gupta	4th
9.	Tukeshwar Sahu	3rd
10.	Sumit Kumar Jaiswal	3rd
11.	Babita Thakur	3rd
12.	Niharika banjara	3rd
13.	Prateek sahu.	3rd
14.	Rajkumar Meshram	3rd
15	Chandraprakash Sahu	3rd
16	Vaibhav Shukla	2nd
17	Divya Bharti	2nd
18	Megha dewangan	2nd
19	Dharamdeo Kumar	2nd
20	Yash Kumar lahre	2nd
21	Tulsi Yadav	2nd
22	Kiran Patel	2nd
23	Aanjali Patel	2nd
24	Vijay baghel	2nd
25	Jhavika uika	2nd
26	Ashish Kumar Patel	2nd
27	Anubhav Satpathi	2nd
28	Sarvesh kumar Sahu	2nd
29	Ankush Paikra	2nd
30	Pragati Lahre	1st
31	Varsha Sahu	1st
32	Subham Dewangan	1st
33	Pradeep Dewangan	1st
34	Ankita Sonwani	1st
35	Jagriti Singh Thakur	1st
36	Mansi Dubey	1st
37	Ramashankar khare	1st
38	Swapnil Tiwari	1st
39	Harshit Sharma	1st
40	Shubham Sori	1st
41	Khushi Lal	1st
42	Aayush Kumar Sanu	1st
43	Himanshi Yadav	1st
44	Kamika Jangde	1st
45	Tarni	1st

Language Oriented Club

2K21-2K22

" We Believe in growing together "

Language oriented club is driven since many years which is primarily focused for communication and overall development of students.

This club provides a lot of opportunities to students to enhance their communication skills, Body language, Team work skill, Leadership, interview skills etc.

through Various interactive activities or sessions like Group Discussion, Debate. Interview, Questions Answer sessions, The Philosopher, Deserted Island, Hot seat, Bingo etc.

Students of EEE Department have also shown good interest in it. Many students have taken part actively & regularly in sessions and worked for the betterment of club through various way.

Following students from EEE have continuously participated and contributed for club: -

Students	Semester	Role / contribution
Gaurav Sharma	8th	President of club
Akansha Bhagat	8th	Coordinator
Deepak Kumar	6th	Coordinator
Shashank Sahu	6th	Coordinator
Shashwat Dhurandhar	4th	regular member
Aditi Chandrakar	4th	Coordinator
Jhavika Uike	4th	member of coordinator team
Ashish Kumar Patel	4th	Coordinator

Recent Trends in Electrical &Electronics Engineering

Smart Grid

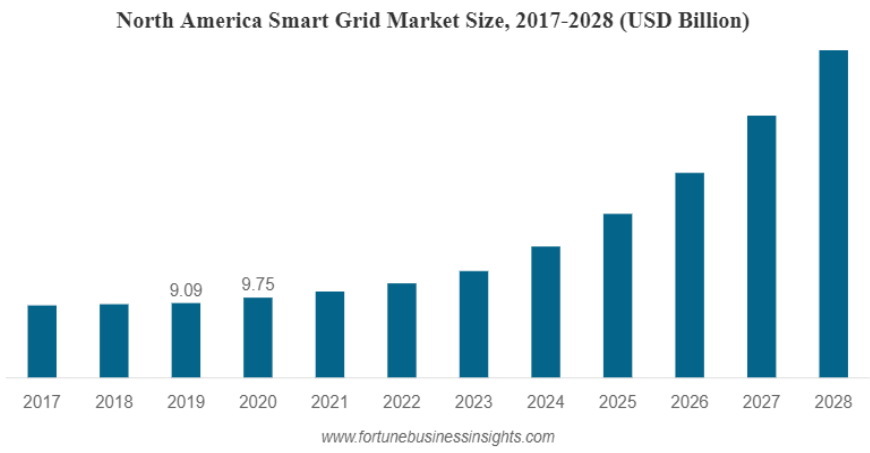
Smart Grid is an Electrical Grid with Automation, Communication and IT systems that can monitor power flows from points of generation to points of consumption (even down to appliances level) and control the power flow or curtail the load to match generation in real time or near real time.

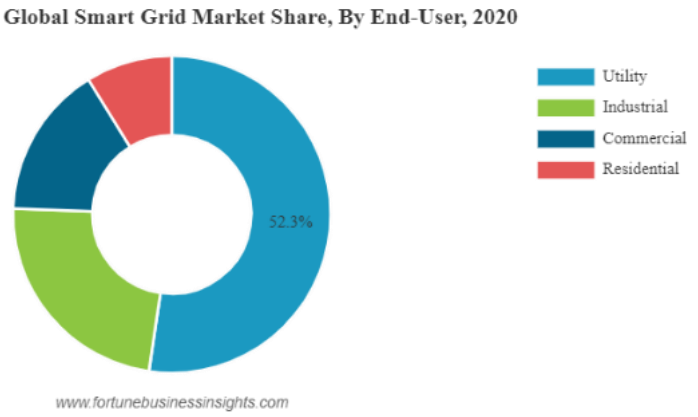
Smart Grid = Information Technology + Electrical Grid

Under smart grid model traditional generation still has a large role, but it is augmented by distributed generation in the form of wind solar and various other customer- owned generation sources that not only generate electricity for end customers, but can also sell electricity back to utility

A smart grid entails technology applications that will allow an easier integration and higher penetration of renewable energy. It will be essential for accelerating the development and widespread usage of plug-in hybrid electric vehicles (PHEVs) and their potential use as storage for the grid.

The global smart grid market is projected to grow from $35.07 billion in 2021 to $140.53 billion in 2028 at a CAGR of 21.9% in forecast period, 2021-2028.



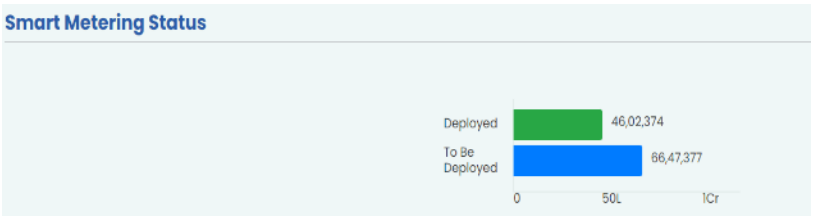


These are the top countries working on smart grid technology

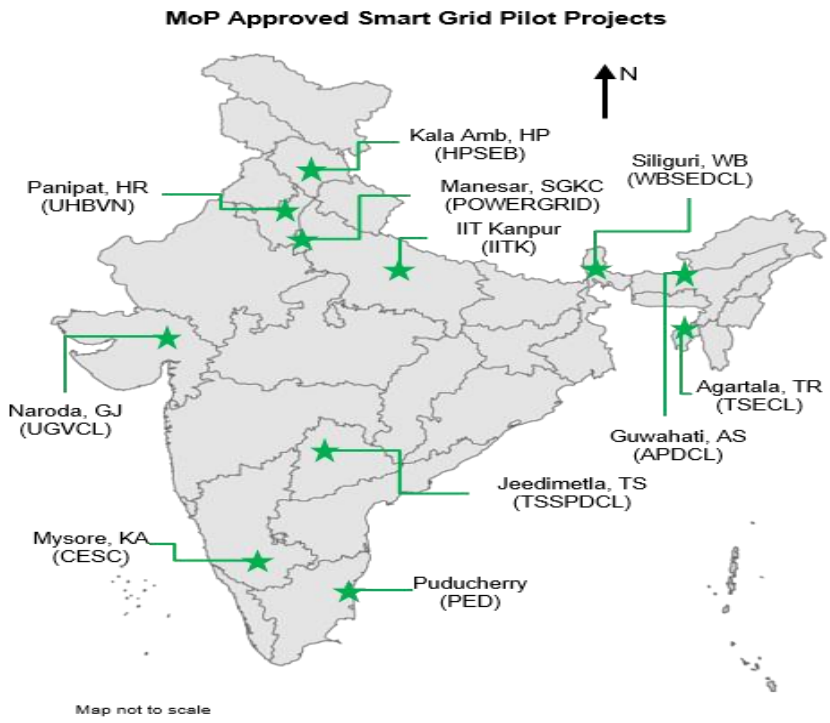
1. **China** is expected to lead in terms of AMI deployment as the country replaces its first-generation smart meters with more advanced systems.

Research company Berg Insight predicts that China will account for as much as 70–80% of smart electricity meter demand across Asia in the next few years.

2. As the **United States** strives to reach 100% smart meter penetration, with some 75% of all households having been equipped with a smart meter by May 2021, according to the **Institute for Electric Innovation**, the market is expected to follow China in terms of smart grid investments and deployment over the next decade.
3. Although the penetration of smart grid technologies, especially smart metering, has been slow in **India** over the past few years, the market is expected to play a key role in the expansion of the market over the next decade. Berg Insight anticipates the Indian market to experience a compound annual growth rate of 76.2% through 2025 and account for as much as 15–20% of smart meter shipments in Asia in 2025.



The World Resources Institute estimates electricity transmission and distribution losses in India to be **27 percent** – the highest in the world. This is a huge wastage of one of the most environmentally unfriendly commodities to produce. Smart grid solutions can contribute to reduction of T&D losses, Peak load management, improved quality of Service, increased reliability, better asset management, renewable integration, better accessibility



to electricity etc. and also lead to self-healing grids.

<u>Commenting on smart grid trends within the Indian market,</u> Levi Ostling, a smart metering analyst at Berg Insight, said: "Ambitious targets to roll out some 250 million smart meters within just a few years' time has so far failed to materialize, with the installed base of such devices merely doubling over the past two years to reach a modest 3 million units at the end of 2020."

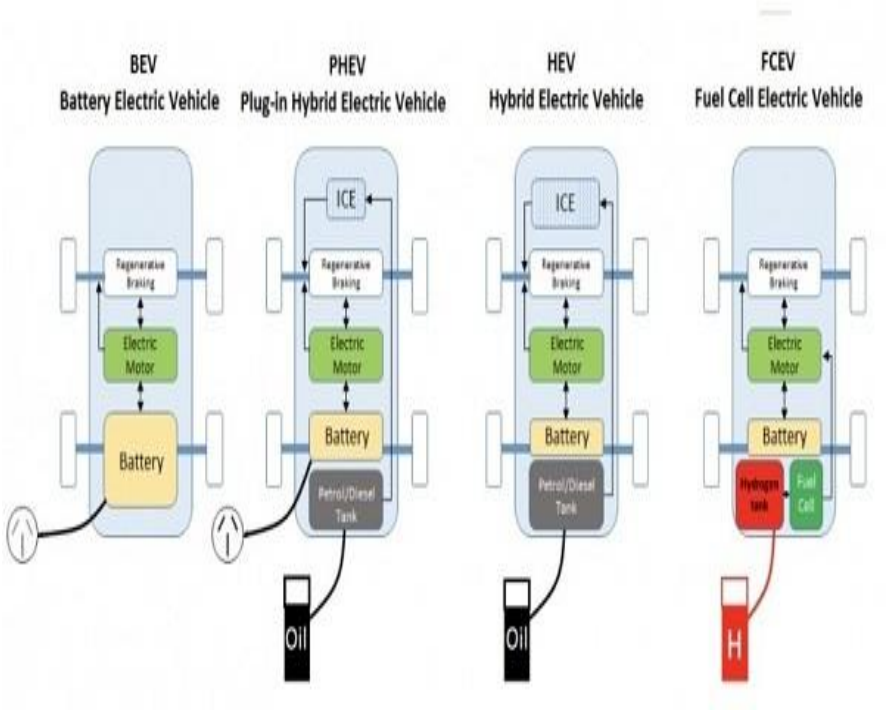
However, increased funding by the government towards smart grid deployment and the need by utilities to enhance operations and revenue collection is expected to be the key drivers of the Indian smart grid market. For instance, the Indian government is considering launching the SAMARTH funding scheme for smart grid rollout.

Smart Grid Vision for India is - **Transform the Indian power sector into a secure, adaptive, sustainable and digitally enabled ecosystem that provides reliable and quality energy for all with active participation of stakeholders**

Electric Vehicle

An electric vehicle (EV) is one that operates on an electric motor, instead of an internal-combustion engine that generates power by burning a mix of fuel and gases.

Electric cars function by plugging into a charge point and taking electricity from the grid. They store the electricity in rechargeable batteries that power an electric motor, which turns the wheels. Electric cars accelerate faster than vehicles with traditional fuel engines – so they feel lighter to drive.



Lithium-ion batteries, Solid state batteries, Aluminium-ion batteries, Lithium-sulphur batteries, Metal-air batteries are new emerging battery technologies for electric vehicles.

Induction motors are the preferred choice for performance oriented electric vehicles due to its cheap cost. The other advantage is that it can withstand rugged environmental conditions. Due to these advantages, the Indian railways has started replacing its DC motors with AC induction motors

The electric vehicles are gaining importance globally as it is seen as a factor of reducing air pollution and smog. **Electric vehicles are more efficient**, and that combined with the electricity cost means that charging an electric vehicle is cheaper than filling petrol or diesel for your travel requirements.

Electric Vehicle adoption has progressed in the past decade. As per the World Economic Forum report in collaboration with Statista, global electric vehicle sales have risen 30% almost every year of the past decade.

The global electric vehicle market was valued at $163.01 billion in 2020, and is **projected to reach $823.75 billion by 2030, registering a CAGR of 18.2% from 2021 to 2030**.

The India electric vehicle market size was valued at USD 220.1 million in 2020 and is expected to expand at a compound annual growth rate (CAGR) of 94.4% from 2021 to 2030.

China is the world's largest EV market (about 50% global sales) and wants to transition to fully electric or hybrid cars

by 2035. Latest data from *Power Technology* shows that in the first half of 2021 China accounted for 12% of global sales, delivering 1.1 million electric vehicles, remaining the world's leading EV market.

Europe has the second biggest demand for electric vehicles after China. Between 2010 and 2020, in this region 25% of worldwide electric vehicles were produced.

Due to strong sales in 2020, Europe surpassed China as the world's largest EV market. So if we define EVs as battery-electric vehicles (BEV) and plug-in hybrids, Europe outsold China in EV sales. But when it comes to worldwide EV sales and deployment, China is obviously in the lead.

The electric vehicle industry in India is picking pace with 100% FDI possible, new manufacturing hubs, and increased push to improving charging infrastructure. Federal subsidies and policy favouring deeper discounts for Indian-made electric two-wheelers as well as a boost for localized ACC battery storage production are other growth drivers for the Indian EV industry. Moreover, in September 2021, a production-linked incentive scheme for the automotive sector was approved by Cabinet to boost the manufacturing of electric vehicles and hydrogen fuel cell vehicles. India reported sales of over 300,000 EV units in 2021.

The undergraduate and post-graduate students of the Electrical Engineering branch will soon be getting opportunities in different job roles in the EV industry. Electrical engineers also have opportunities to start their start-ups in the allied field. Research and Development, Designing, Manufacturing, Maintenance, Charging Stations are the areas where Electrical Engineers can get opportunity. Tesla, BMW, Nissan, Chevrolet, Ford, Volkswagen, Kia are some of the top EV manufacturers.

Currently, there are 12 electric cars on sale in India. Of these, the Tata Tigor EV is the cheapest EV while the Audi RS e-tron GT is the most expensive electric car in India. Upcoming electric cars in India include Volvo XC40 Recharge, Mahindra eKUV100 and Tata Altroz EV among others.

AR &VR Technology

Augmented reality (AR) and Virtual Reality (VR) bridge the digital and physical worlds. They allow you to take in information and content visually, in the same way you take in the world.

- **Augmented reality** (AR) augments your surroundings by adding digital elements to a live view, often by using the camera on a smartphone.
- **Virtual reality** (VR) is a completely immersive experience that replaces a real-life environment with a simulated one.

One of the big market trends for the last 5-6 years has been a focus on VR, AR and Mixed Reality devices and applications.

In 2016, as "Pokémon GO" grabbed a diverse set of users' attention and broke the barrier between the real world and our screens, researchers evaluated the app's success and explored ways of applying it to environmental conservation.

Later that year, professionals released the first Oculus headset, normalizing virtual reality (VR) in the gaming world.

Scientists also explored using VR to stimulate ecological awareness and minimize adverse climate change impacts.

Augmented reality (AR) and virtual reality (VR) technologies have been continuously growing for the past years. According to the latest report from PRNewswire, the global AR/VR market is expected to increase by 162.71 billion from 2020 to 2025, a CARG of 46%. Also, as per Crunchbase report, in 2021, VR/AR startups received nearly $3.9 billion of venture capital, which makes it the second-best year for VR/AR investment.

Alphabet Inc., Facebook Inc., HP Inc., HTC Corp., Magic Leap Inc., Microsoft Corp., Samsung Electronics Co. Ltd., Snap Inc., Sony Corp., and Toshiba Corp., among others., are some of the key vendors in the augmented reality and virtual reality market.

Oculus Rift, HTC Vive, Samsung Gear VR, Google Glass, Microsoft HoloLens, ODG R-8, Epson Moverio are the different types of devices.

The Indian Augmented Reality and Virtual Reality Market stood at USD1.83 billion in FY2020 and is forecast to grow at a CAGR of 38.29% until FY2027.

Growth in the Indian Augmented Reality and Virtual Reality Market is driven by the accelerating digital transformation of the country. The availability of various VR devices, growing adoption of head-mounted displays (HMDs) in different industries, advancement of technologies and growing digitization, penetration of HMDs in gaming and entertainment sectors following COVID-19, and high investments in AR & VR market are the key factors driving the growth of Augmented Reality & Virtual Reality Market across the country.

The AR software has to run on hardware. Depending upon the project, in addition to electronic engineering, mechanical and optical design may be involved. There *might* be a little software engineering also. Specifically, AR projects require microcontroller hardware design, a source of photo/video input (like a digital camera or video stream, an output device of some sort and a user interface. Depending upon the application, a dual port read/write memory (RAM) may be required to buffer and process the image stream.

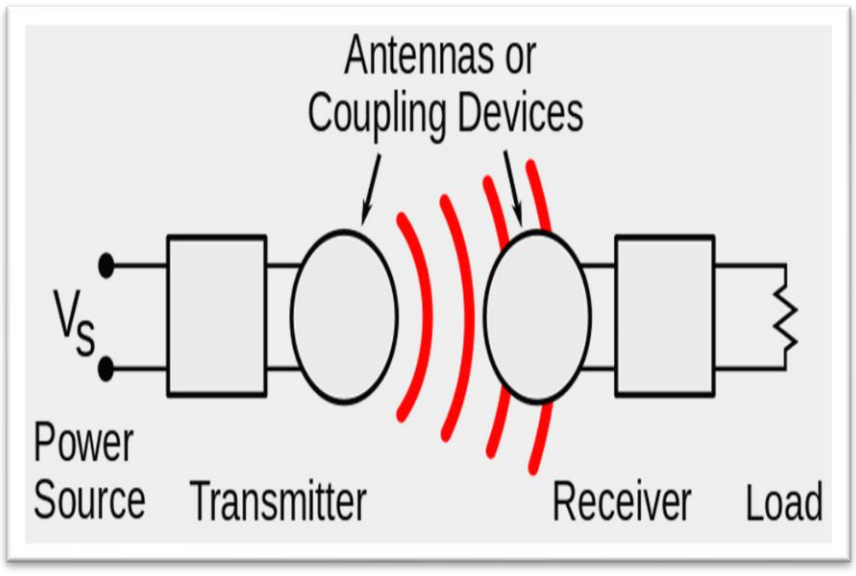
Wireless

Power Transfer

Wireless power transfer is **the transmission of electrical energy without wires as a physical connection**.

Wireless power uses the same fields and waves as wireless communication devices. Various radio-frequency (RF) technologies are used for wireless power transmission.

In a wireless power transmission system, a transmitter device, driven by electric power from a power source, generates a time-varying electromagnetic field, which transmits power across space to a receiver device, which extracts power from the field and supplies it to an electrical load.



Wireless power transmission is not a new idea; Nikola Tesla demonstrated a "transmission of electrical energy without wires" that depends upon electrical conductivity as early as 1891.The receiver works on the same principle as radio receivers where the device has to be in the range of the transmitter.

Various Wireless Charging Technology used in Wireless Charger, Microwave Wireless Power Transfer, Laser Light Wireless Power Transfer, Wireless Power Transmission using Inductive Coupling,

Magnetic Resonant Induction based Wireless Power Transfer are **Different Types of Wireless Power Transfer Technologies.**

Wireless transmission is useful to power electrical devices where interconnecting wires are inconvenient, hazardous, or are not possible. Wireless power transfer technology reduces the use of electric wire which is made of copper and aluminium metal. **The metal which are used to make electric wire will extinct in future**.

The global wireless power transmission market size was valued at $5,705.1 million in 2020, and is projected to reach $35,226.4 million by 2030, registering a CAGR of 21.3% from 2021 to 2030.

The future of the wireless power transmission market looks promising with opportunities in the smartphone, notebook, tablet, wearable electronic, and electric vehicle charging applications. The major drivers for this market are increasing consumer preference for wireless connectivity, growth in electric vehicles, and increasing need for effective charging systems.

Some of the wireless power transmission companies profiled in this report include Integrated Device Technology, Qualcomm, Samsung Electronics, TDK Corporation, Texas Instruments, Nucurrent, and Witricity Corporation.

wireless power is no longer a dream for **New Zealand** Emrod has designed a unique tele-energy technology that uses a wireless network of antennas and rectennas (rectifying antennas) carrying energy in the form of long-range electromagnetic waves from one point to the other.

Innovative Projects

- **Analysis, modeling and simulation of PI controller based synchronous boost DC-DC converter**

This project is created by Akanksha Bhagat, Deepa Gupta, Vibhuti Bhagwat, Prakashini Divya under the guidance of Mr.Sheshnarayan Dewangan.

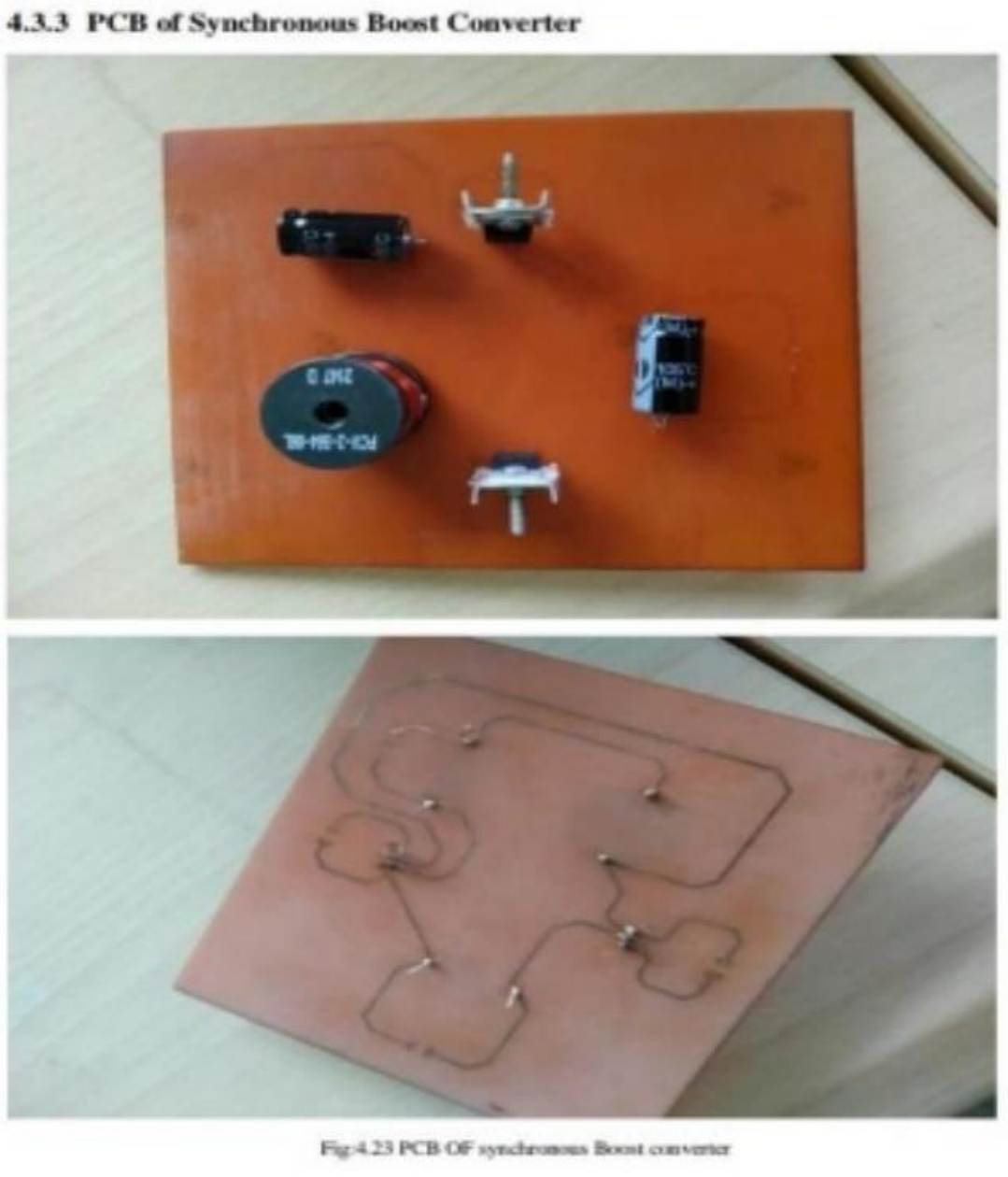


Fig:4.23 PCB OF synchronous Boost converter

This thesis proposed Designing and Analysis of DC-DC Synchronous Boost Converter for Electric Vehicle applications especially in Hybrid Electric Vehicle. Nowadays, Boost power Converter is used in many applications and power capability demands. The applications of Boost Power converter may be seen in electric vehicles, photovoltaic (PV) system, uninterruptable power Supplies (UPS), and fuel cell power system. The control circuit of this converter is controlled by using the PI Controller. Various converters are used for Electric Vehicle applications in order to a better driving Range and the best engine output used in vehicle. This proposed Synchronous Boost Converter is Close loop converter with PI Controller, in which 12V DC supply Boost as 30V DC output with 60% duty ratio and 10 KHz frequency. All the mathematical Calculations, Simulation, Analysis, Hardware Implementation, PCB Designing has been presented.

• Automatic Water Level Monitoring System for Agricultural Implementation

This innovative project is created by Tanmay Kumar, P. Shreenidhi, Himanshu Yadu (students of EEE 8th sem) under the guidance of Mr. Abhay Shukla .

With advancement in technology and ever-changing weather Conditions, accurate and affordable water level measurement systems

Have become necessary for farmers. This therefore brings about the Need for a system incorporating the use of IoT technology that will Monitor water levels at a cost-effective price with accurate and Dependable results. The prototype will monitor water levels on a

Regular basis and the data captured will be stored in a database to help Farmers improve the way they manage their water resource. Farmers

Will be able to monitor the water levels from any location at any given Time. Traditional methods are time-consuming and labour-intensive and is One of the reasons that result in water shortage. “Automatic Water

Level Monitoring System for Agricultural Implementation” is therefore

Used to solve this problem and has many implementations in the field

Of agriculture, some of the implementation we are focusing during the

Project are

• To measure the water level of tank

• For double ring infiltration

• For stage recorder

Sensors provide a better solution in accurate level measurements and

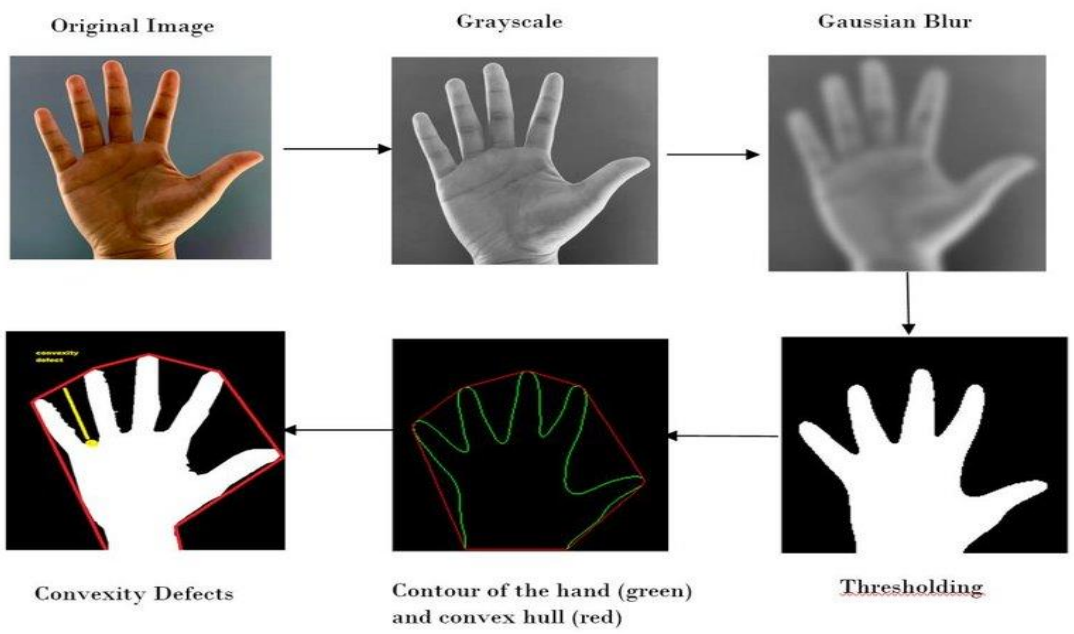
Automatic processing of water levels. Use of sensors would ensure

Using right amount of water as appropriate to season, and climate and Weather conditions Proper scheduling can avoid over watering and excessive runoff. There Are many advantages of using smart technologies over the conventional Methods.

• Sign Language Recognition System Using Image Processing

This project is created by Ankit Kumar, Mohit Kumar Gupta, Anisha Paul, Yangendra Kumar under the guidance of Ms. Poorva Sharma.

Sign language is a visual non-verbal communication. Which use hand gestures and movements of head, eyes, eyebrows to express and communicate the feelings of one person to another. But this communication usually used by some special people who are deaf and dumb. These kinds of people can't express their feelings, messages and information by just simply telling to us, they need some special kind of actions and expressions to express, which is quite difficult to understand for the normal person who can express their thoughts through their vocabulary speeches. This creates a communication gap between these special people and the normal people. The number of using sign language is large but the popularity of sign language is less. According to WHO on 22 March 2022, Millions of people across the world live with disabling hearing loss. The vast majority live in low- and middle-income countries where they often do not have access to appropriate ear and hearing care services.[1] Each and every person having so many talents but due to some lack of education, knowledge and support those talents are not express by the person, those talents become hidden for them. Similarly, these deaf and dumb community is large but the level of education and providing knowledge and support is less.



In this project "SIGN LANGUAGE RECOGNITION SYSTEM USING ML." They have tried to overcome these problems by using a device known as smart gloves which is made up of flex sensors, Arduino Nano BLE 33 BLE, jumper wires, PCB and many electronics equipment. But we realised that these gloves become more expensive for the poor and middle-class people. This again cause a barrier with the benefits and facility for those needy people. So, to overcome these problems by simply applying the technology and the knowledge we gain throughout the period of study, by making a software which work as a digital image recognition system which captures the image of hand gestures and convert it into text and voice. With the help of neural network of image processing, the future of the technology. This creates a friendly and handy system to achieve and fulfil our goal for these special people who can able to join the world without any hesitation and feeling shy due to their speciality. We use the PyCharm community edition 2021.3.3 software which use the python language.

• Electrification And Hybridization of IC Engine Vehicle and Its Analysis

With the increasing price of petrol and diesel, demand of electric vehicles increased drastically, but still the sales figure of electric vehicles is no where near that of IC engine vehicles, one of the major reasons for low sales of electric vehicles is range anxiety, hybrid vehicles is the best possible solution to that problem.

There are millions of IC engine vehicles running on roads today, once EV's start taking over the existing IC engine vehicle, IC engine vehicles must be recycled to avoid scrap waste, for tackling this problem electrification of IC engine vehicles is necessary.

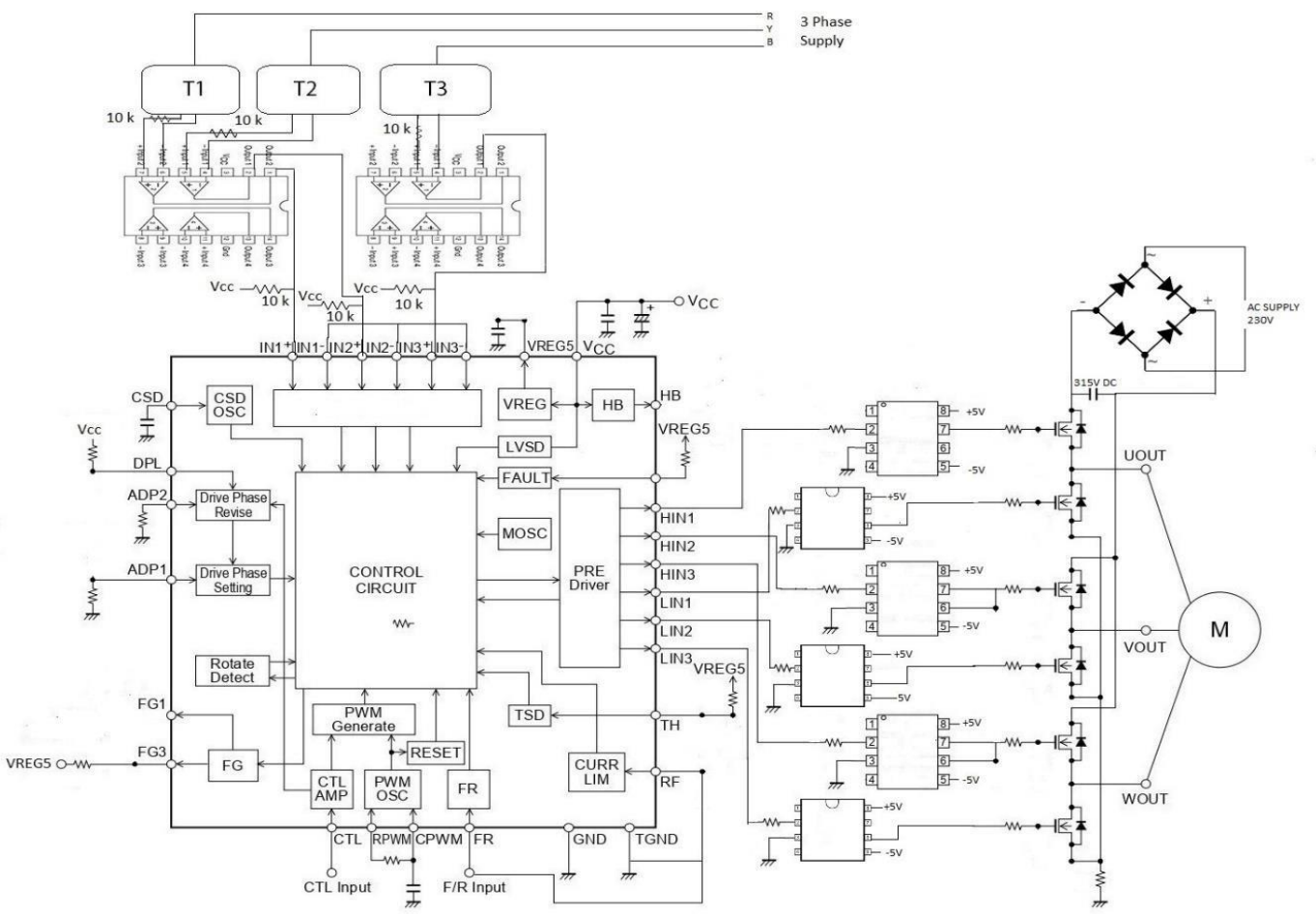
So to overcome from these all problem This project " Electrification & Hybridization of IC engine vehicle and it's analysis " is created by Guarav Sharma and under the Guidance of Dr. R. S.Parihar .

Electrification is the process in which the expired or incapacitated IC engine vehicle is converted into fully electric vehicle by removing its engine, petrol tank, accelerator cable etc and installing electrical components such as motor, battery, controller, etc, so that it run's entirely on motor/electric power, whereas Hybridization is the process in which an additional electric kit is installed to an existing IC engine vehicle to make it run on both engine as well as on motor as per will. The kit consists of a motor, battery, controller, hybrid accelerator cable, relay switches, DC to DC convertor etc, moreover electrification can be archived even after hybridization, by simply removing IC engine and its supporting parts such as fuel tank, gear box etc, further reducing the weight of the vehicle and increasing vehicle's efficiency.

•SPEED CONTROL OF 3φ INDUCTION MOTOR BY USING SPWM

This project is created by Sarvjeet Chourasia, Priyank Sahu, Yashraj Singh under the Supervision of Dr. R.S. Parihar professor and Head of the Department of EEE NGECR.

Pulse Width Modulation variable speed drives are increasingly applied in many new industrial applications that require superior performance. Recently, developments in power electronics and semiconductor technology have lead improvements in power electronic systems. Hence, different circuit configurations namely multilevel inverters have become popular and considerable interest by researcher are given on them. Variable voltage and frequency supply to AC drives is invariably obtained from a three-phase voltage source inverter. A number of Pulse width modulation (PWM) schemes are used to obtain variable voltage and frequency supply. The most widely used PWM schemes for three-phase voltage source inverters are carrier-based Sinusoidal PWM and space vector PWM (SVPWM). There is an increasing trend of Using space vector PWM (SVPWM) because of their easier digital realization and better dc bus utilization. This project focuses on step-by-step development SPWM implemented on an Induction motor. The model of a three-phase a voltage source inverter is discussed based on SPWM theory. In this project we have used LV8139JA motor driver ic and variation of the speed of induction motor is done by changing the duty cycle.



Article Section

BHAGAT SINGH-NATIONALISM AND REVOLUTION

As a youth when one is asked to interpret Shahid Bhagat Singh, they generally thought of a pistol and the man with an overbearing moustache. If asked to act like Singh, youth would wear a hat and take a pistol and become ready for revolution with the use of pistols and bombs.

But when we critically examine him and look into his understandings, he once said, "Bombs and pistols don't make a Revolution; the sword of revolution is sharpened on the whetting-stone of ideas". At another instance he wrote, "Revolutions did not necessarily involve and sanguinary strife, it was not a cult of bomb and pistol". This is the essence of real 'Nationalism'. Also, in an article written by him in a magazine 'Keerti', he asked the youth of Punjab to follow the path of Pundit Nehru and renounce the path followed by Netaji Bose. He told Subhash Bose to be an emotional Bengali and Nehru to be an internationalist.

SOUNDS INTERESTING

Generally, for the person, who blindly believes the facts forwarded to them, find it difficult to digest the above facts.

But the idea of nationalism as interpreted in the second decade of 21st century of modern India is way opposite to that believed by Bhagat Singh. He wrote that Subhash Bose believes that Panchayati Raj and socialism have origin in ancient India and Nehru contradicts him and says that every country feels that they have a special message for the world and Bhagat Singh feels the same as that of Nehru's.

Moving forward he wrote that being confined in the blanket of East v/s West will not make progress. In fact, we have to come out of these narrow confines of nationalism and move into the open fields of internationalism. This was the same message conveyed by Gurudev Tagore in his book “Nationalism”.

In the present India where we live in a way of communal nationalism it is necessary for us to read Bhagat Singh thoroughly and then only decide the legality of the required nationalism. The idea of nationalism cannot be achieved with bomb and pistol until and unless it is needed for deaf to hear According to Singh, the revolution should not pick

the weapons. Revolution is an inalienable right of mankind. Freedom is a birth right but one should achieve all these with the whetting-stones of Idea.Also this idea of nationalism can be achieved by thinking for humankind rather than being confined to the idea of the past.

Being a Marxist-Leninist and an atheist, the people who adore Bhagat Singh should know that he also chided the idea of communalism flourished by Lala Lajpat Rai. He asked the people to have “Independent Thinking” and do “Merciless Criticism” on the old orders. According to him, these two traits are features of a revolutionary.

A Struggler like him never dies. They always live in people and ideas. With the world full of imitation and falsified ideas, the youth should read him thoroughly and bring his thoughts to life after ‘Independent thinking'

~NISHANT PRASAD
(NGEC RPR-EEE-VI SEM)

CLIMATE CHANGE

Mahatma Gandhi said "**Earth provides enough to satisfy every man's need but not every man's greed".** This time the heat broke all the previous 20 yeary records of many countries of the whole world like Southern US, Spain, India, France, Pakistan etc. this time in India, the mercury reached 40-42 in maximum states.

According to the UN report in 2021 due to climate change the temperature of the earth will rise by 1.50°C by 2030 and by the end of this century 3°C while the sea level will rise by two meters. These 3°C may seem low to you but the increase of this 3°C does not mean increase of only 3-degree temperature it means rise of sea level, desertification, drought, flood, cold wave, heat wave etc. The effect of climate change is being seen in some countries of the world like in Dhaka Bangladesh the slums climate is getting filled with migrants. There was a forest fire in Greece and California due to which thousands of people had to leave their homes. This problem will increase in many countries in the future. Competition will increase further for fundamental resources. Water will be focal point in it, for which it is said that there may be happen third world war, the result of this is being seen from now on people do not have access of clean water to drink properly. According to the scientist the temperature has increased by 1.1-1.3°C since the time of industrialization and this climate change is going to be affected not only in some countries but all over the world.

Now question arises Why **we don't care about climate change?**

1. Climate change is a complicated problem it is not easy to make understand people.

Even before this, there were many problems related to climate change that has been solved such as when the case of depletion of ozone layer or ozone hole came to light in 1970-80, people were shown the image of ozone hole and seeing it people around the world stopped using such products from which were producing CFC and gradually the companies producing such products were also closed. But here it is not only about CFCs but also CO2, N2O, NO3, SF6, CH4 etc which are produced by products we use in our daily life due to which people ignores climate change.

2. Climate change also doesn't go to the attention of the people or the solution is not found because **it is never covered in the media** until Environment Day or Environmental issues comes to light. According to the report of DW, USA news network has covered Jef Bejos's space travel news around 212 minutes while climate change was covered for just 267 minutes throughout the year. On the other hand, in India apart from religious debates you can't hope for something like environmental issues.

3. Talk more and less work, many developed countries of the world make big promises on climate change but didn't not work at all.

Humans have produced about 1.5 T tone CO2 since the time of industrialisation and in 2019 produced 50% CO2 from the world 2000 where 24.6 billion tonnes CO2 was produced in 2000 and 37 billion tones CO2 in 2019 and it’s still rising. And not only carbon dioxide but other greenhouse gases like CH4 NO are also increasing continuously. There are only two main reasons for the continuous increase in amount of these gases.

1. Population size 2. Economic growth

Of course, Population of a country affects climate change as more people uses more resources and this leads to increase in greenhouse gases so does India produces more greenhouse gases after China (as per the population)? Of course, not because It more depends upon the economy of country because rich countries and their people like America, China, European countries uses more resources that lead to increase of greenhouse gases. Today all countries and people want to be rich, want economic growth, want to be developed. But it is not just a matter of boosting economic growth as you become rich or developed, the more resources you use, the more greenhouse gases you produce.

The carbon footprint of a programmer in America is more than 50 farmers of Uganda and since growth is happening everywhere in the whole world along with this climate change is also increasing.

So, have we not done anything yet to prevent climate change?

It’s not true govt and peoples of all over the world have done many good things for climate change from reducing use of fossil fuels to technology like Carbon capture and we can easily see it through comparing this decades with previous decade. Some wealthy people's and foundation like Bill gates are working and helping foundation continuously to fight against climate change which is really commendable. Although we have done many good jobs yet it's not enough to resolve this issue from the root.

Therefore, to prevent climate change we need to talk about it continuously so that It can get political attentions and funding then only we will be able to solve it from the root and for that we need to create pressure on governments that’s the only way to keep working for it and we will definitely win this war against climate change and green house. The need is only **be positive and keep patience with continuously work for CLIMATE CHANGE.**

~ DEEPAK KUMAR

(NGEC RPR-EEE-VI SEM)

Poetry Section

Flower in the world of chaos

In the world of chaos,
Unware
A flower blooms.
To spread love, happiness;
With a hope
To erase the sadness
Of the world around.
Suffers burning sunlight,
Storming rauns; loses loved ones.
(falling leaves)
But standstill
Brings smile to many faces,
Until the day come,
The blissful spring; season of its dream.
It can see now,
The joy of love, happiness and beauty,
Spreaded
In the world of chaos.

~Priya Gupta

आखिर इसका जिम्मेदार कौन ?

फटे कपडे ,फुटी थैली , पांव मे पड़ें है लाली,

दर-दर ,घर- घर,मांगते फिरते भीख मे मिलती गाली,

कटती उनकी रातकाली,कभी आधी पेट ,कभी खाली,

भाग्य की निष्ठुरता सहते जाते बिना प्रश्न किये मौन ।

आखिर इसका .....।

खाने को दाना नहीं , रहने का ठिकाना नहीं।

अंग मे पाहरवा नहीं,फिर भी तनिक पछतावा नहीं।

हर रात अमावस होती हैं ,क्या होली ,क्या दिवाली।

भाग्य कि निष्ठुरता सहते जाते बिना प्रश्न किये मौन।

आखिर इसका.....।

अस्वस्थता मे ईलाज नहीं, स्त्रीयों कि बचती लाज नहीं।

ये छिपाने वाली राज नहीं ,कि करने को कोई काज नही ।

जो हो गरीबो के पक्ष में, क्या ऐसी कोई आवाज़ नहीं?

भाग्य कि निष्ठुरता सहते जाते बिना प्रश्न किये मौन।

आखिर इसका .....।

~Tukeshwar Sahu

पथिक

वह जो सदा चलता चला,

वह जो सदा बढ़ता चला,

वही है राही,वही पथिक,

उसकी जीवन है एक सीख।

ना चट्टानों से कभी भय,

ना ही कभी उसने तोड़ा लय,

जल सा निर्मल जिसका मन,

जल सा ही बहता संपूर्ण जीवन,

वही है राही, वही पथिक,

उसकी जीवन है एक सीख।

उज्जवल दीप की भांति सर्वदा जगमगाना,

सूर्य की समान हमेशा प्रकाशवान,

है जिसकी संपूर्ण जीवन एक शान,

हो उसीका मान, हो उसका सम्मान।

वही है राही, वही पथिक,

उसकी जीवन है एक सीख।

~Nishant Prasad

हमर छत्तीसगढ़

हमर छत्तीसगढ़ - नवा छत्तीसगढ़

गजब मोर छत्तीसगढ़ के बात होही,
परिश्रमी सब्बो युवा के साथ होही ।

खुशहाल सब्बो मजदूर-किसान होही,
गौमाता के सेवा कर सब्बो धनवान होही ।

छत्तीसगढ़ के लइका-दाई सब्बो स्वस्थ होही,
छत्तीसगढ़ के नवा पीढ़ी सुदृढ़ अउ सशक्त होही ।

स्वच्छता ले संपन्नता के काम होही,
संपन्नता म छत्तीसगढ़ के नाम होही।

सब्बो छत्तीसगढ़वासी के चेहरा म मुस्कान होही,
बिदेश म भी छत्तीसगढ़ के समृद्धि के गुणगान होही।

सब्बो छत्तीसगढिया संगवारी के एकेच लक्ष्य होही,
"गढबो नवा छत्तीसगढ़" के सपना सच होही।।

~Anubhav Satpathi

कोविड

कैसा टाईम आया है
वायरस का बादल छाया है ।

हाथ मिलाना पाप है
काट खाएगा ऐसा ये सांप है ।

सब ने कहा " अरे ये तो चाइना का माल है "
अब यही कर रहा सब का हाल बेहाल है।

कैसा ये समय आया है
प्रकृति से इंसान ने चेहरा छुपाया है ।

सोशल डिसटेंसिग ने अपनों को अटेंशन देना
सिखाया है ,
जब से कोविड इस दुनिया में आया है ।

~Aditi Chandrakar

सरकारी सिस्टम और उसका सपना

लाखों सपने टूटे थे , हजारों हुए थे पूरे

उसका भी सपना था जो रह गया अधूरे।

अनजाने और मित्र-सलाह में JEE का फॉर्म भरा था

Covid ने भी तभी भारत में दस्तक दिया था

और घोषित हुआ महामारी था ।

उस एक अनचाहे सपने को पाने

मेहनत भी उसने था खूब किया

उसका ये मेहनत रंग भी था लाया

अच्छे रैंको से selection भी था कराया ||

और आतुर वो अपने सपने को पाने को था,

लेकिन मंजूर कुछ और सरकारी सिस्टम को था

जिसको वैश्विक महामारी को उन्होंने ही बुलाया लगता था,

निर्देश भी दिया था शायद हमने covid को

समय जो उसने भारत में बिताया था ॥

पहले तो केवल पुस्तकों में किस्सा मैने पढ़ा था लेकिन

पहली बार हुआ था सामना मेरा

सरकारी सिस्टम से इस रूप में ,

यहां से वहां , इस ऑफिस से उस ऑफिस

दौड़े थे हम भूख-प्यास और धूप में ।

कभी कोई कहता यहां जाओ , तो कोई वहां

कोई कहता “ कल आ जाओ साहब अभी निकल गए हैं “

तो कोई कहता ये डिपार्टमेंट मेरा नहीं है ,

तो कोई “रखने चाहिए बात बड़े साहब के दफ्तर में “

लेकिन जब वक्तव्य रखे थे हमने उनके सामने

उसने भी अपने आपको छोटा बतलाया ,

और निर्देश दिया की बात करो उसी से जिसने

ये मुसीबत है तुम्हारे लिए बनाया ,

कहना तो उनका ये भी था की

थोड़ा सा उनसे दया दृष्टि की भीख मांगलो

शायद समस्या का समाधान हो जाए ,

लेकिन स्वाभिमानी तो हम भी ठहरे

भला जो अपराध हमने किया ही नहीं

उसके लिए हम क्यों अपना शीश झुकाए ।

कुछ बुद्धि जीवों ने सलाह दिया की

जरूरत पड़े तो जाना थाने में ,

लेकिन हम नहीं पड़ना चाहते थे

ये कोर्ट कचहरी के चक्कर में,

और आखिर उन्होंने माना ही था की चलो

कभी कभी अनजाने में गलती हो जाता है

लेकिन किस्मत ने अगले दिन फिर लिया नया एक मोड़

और ले चला गया एक न्यूज ने उनके सारे सपने तोड़ ।

सुबह सुबह कुछ बड़ा हुआ था

कुछ नया नियम सा था आया ,

एक समस्या नहीं गया था

और दूसरा बडा परेशानी था आया ॥

पल भर मानो पैरों तले जमीन ही खिसक गया

फिर सोचा शायद सिलेक्शन कराया

था यही उन्होंने अपराध किया ।

इस सिस्टम से लड़ने उसने अपने को छोटा पाया

उसने अपने सपनों को हाथों से जाते पाया ।

वो आखिरी दिन था जब उसके आंखों से अश्रु आया

और उसने वो सपना अपना चूर-चूर सा पाया ....॥

~Deepak Kumar Sahu

पापा

दिन रात अपनी कमर तोड़ कर काम करते हैं,

उसके बाद भी घर आकर सिर्फ मजाक करते हैं।

खुद 10 साल वही पुराने कपड़े पहनते हैं,

पर मुझे हर महीने पूछते हैं,

"कपड़े कम तो नही पड़ते हैं?"

कभी बताते नही,

पर सबसे ज्यादा प्यार वो हम से करते हैं।

होस्टल से आता हूं तो रोज नई डिश बनाते हैं,

मना करने पर भी जबरदस्ती अंडा खिलाते हैं।

माना थोड़े ओवरप्रोटेक्टिव हैं,

कहते हैं दूर रहो लड़कियों से,

पर अंदर ही अंदर शादी के सपने सजाए हैं।

भले न रखा हो पेट में नौ महीने,

पर दिल में आखरी सांस तक रखते हैं।

अगर पूछो की ये सब जताते क्यों नही,

तो कहते हैं "बेटा हम तो बस अपना काम करते हैं"।

~Shashvat Dhurandhar

Father

If you are stuck in a situation,
Or unable to conquer your confusion,
Feeling frustrated or when you are sad,
Just take a deep breath and talk to your Dad.

Words cannot describe his love, yes it’s true,
I just tried to pen it down for you.

“I love you my child, I can do anything for you.
I am there to guide you, whatever you do.
I can be strict and enforce some rules on you,
Just to make you a good citizen, yeas I do.”

No matter how great is the distance betwwn us
Stay calm, don’t be a fuss.
Remember I am always there with you,
Just close your eyes and distance between us will be few.

~ Aditi Chandrakar

Donate Blood Slogan

हालांकि रक्तदाताओं से खुन के रिश्ते नही होते है,

पर जरुरतमंदों के लिये तो वे फरिस्ते होते है।

आओ हम सब मिलकर रक्तदान करें,

मिला जो मानव जीवन है उसका सम्मान करे।

आओ हम सब मिलकर एक काम महान करे।

आओ हम सब मिलकर रक्तदान करे।

~Tukeshwar Sahu

प्रकृति

आज मौसम सुहाना था, हवाओं ने अपना रुख बदला था

उस सुहाने हवाओं के साथ, पक्षियों और झरनों का आवाज था

बादल छाए थे, खुशबू की तरह, आंखों मे उमंग की तरह

एक नए रास्ते में फूल बिछाती है, हवाओं से लहराती पत्ते जो राहे सजाती जाती है |

कभी-कभी बादल छाए होते हैं

लगता है मौसम थमसा गया है

हवा और पानी चलने और बरसने की इंतजार में

जब पानी की बूंदे और ठंडी हवा में मौसम प्यारा लगता है |

उस चमकते बिजली, बरसते पानी और ठंडी चलती हवाएं

मन में उमंग से लाती है हवाएं

एक नया रास्ता दिखाती है ये आशाएं

जब आता है बसंत और सावन का महीना

मन लगता है झूमने और गाने का महीना

जब फूल खिलते हैं जगह-जगह

और आता है ,शंख का आवाज जगह-जगह

मन में शिव और विद्या का वाहन होता है

जीवन में नई दिशा और सादरता भरती है

मौसम परिवर्तित होता है तो प्रकृति का होता है अभिशाप

जीवन को अस्त-व्यस्त कर देता है श्राप

मनुष्य को करनी चाहिए इसकी रखवाली

ताकि मनुष्य जिंदगी न हो दुखियारी

प्रकृति हमें देती है जीवन जीने का तरीका

हमारी जिंदगी प्रकृति की गोद मे है

जीने की आशा प्रकृति की गोद मे है

~ Divya Bharti

पहला दिन

बहूत दिनों बाद फुट फुट कर रोया था मैं ,
मां कि गोद में सर रखकर घंटों तक सोया था मैं।

आलस में कभी मेहनत ही नहीं किया था मैं,
पैसा पापा के बस धुंए में उड़ाया था मैं ।

क्या हुआ ये तो पुछना ही मत मेरे यार,
समझ आया कैसे घर में आती है रोटी चार।

पहली बार आया मुंह पे नाम भगवान का ,
हां पहला दिन था आज मेरे काम का

~Aditi Chandrakar

मेरे पापाजी

पापा आप ही तो हो मेरे भगवान,

मां अगर आयत हैं तो आप पूरे क़ुरान।

मां अगर खीर हैं तो आप मीठे पकवान,

पापा आप में ही तो बस्ती है मेरी जान।

पापा मैं आपसे ही तो बना हूं,

बाहें पकड़ के आपके साथ बढ़ा हूं।

चाह यही है मेरी आपके सब गम ले लूं,

सारी ख़ुशी आपके चरण संजो दूं।

दुनिया वालों को ना दूंगा एक भी अवसर,

कभी झुकने ना दूंगा मै आपका सर।

हमेशा कहते हो आप सबसे पहले है पढ़ाई,

और खिलौनों की दुकान भी आपने घर में ही सजाई।

ज़िन्दगी कैसे जीना है आपने सिखाया,

वो आपके उसूल हां मैंने अपनाया।

आपने बताया दुनिया में कोई साथ नहीं देता,

मैं गलती करता और आप कहते कुछ नहीं होता बेटा।

इस संसार में जो दूर से अच्छा लगे वो है मोहमाया।

पापा आपसे ज्यादा प्यार कोई नहीं देगा मुझे,

हमेशा मुझसे कहते मेरी दुआ और उमर लग जाए तुझे।

ऐ रब्बा मुझपे एक उपकार करना आप,

हर जनम में बनाना इनको ही मेरा बाप।

और कितना लिखूं मै आपके बारे में मेरे पास लफ्ज़ नहीं कि मै लिख सकूं,

बस यही आशा है कि सबके लिए क्या सही क्या ग़लत यह आपसे सीख सकूं।

ये तो कभी सोचा ना था

की ऐसा दिन भी आएगा की आप आज साथ ना होंगे,

रोना तो बहुत आया,

मगर आपने आखिरी वक्त तक समझाया,

कभी किसी के आगे झुकना नहीं,

और कभी रुकना नहीं...

अजीबोगरीब आइडियास की दुकान

आपका प्यारा आन।

धन्यवाद!!...

~Mayank Nagwanshi

नया फोन लिया मेरे लिए टूटा फोन आपने खुद चलाया पापा,

आपके आंखो की कम हो गई रोशनी मगर रोशन मंज़िल का रास्ता आपने ही दिखाया पापा।

सरल सा स्वभाव है आपका हमको अच्छे से है समझाया,

मरणोपरांत

रात हुई, कुछ समय बीते मैंने एक लंबी सांस ली, काफ़ि गहरी नींद में था | मेरी हर दिन की तरह सुबह हुई, आज ना माँ उठाने आयी ना पापा, लेकिन फिर भी किसी के पुकारने की आवाज आ रही थी | किसी ने मुझे जमीन पर सुलाया था और मैने देखा सब रो रहे हैं , कुछ लोग बाहर मे बांस पर बांस जोड़ रहे है, मैंने कोशिश बहुत की उठने की लेकिन उठ नही पाया , मेरी माँ उठाने के लिए हिलाने लगी मुझे, फिर भी मै न उठा | पता ही नही चल पाया की क्या हुआ की कुछ लोग मुझे बांस की शैय्या मे लेटाने लगे , फिर पीछे पीछे बहुत लोग थे कुछ अपने कुछ पराये, लेकिन सब कुछ बोल रहे थे... और मुझे सुनाई ही नही दे रहा था फूल गुलाल मेरे उपर आ रहे थे | मैंने तब सोचा की सब जा कहां रहे है और फिर एक लकड़ी की शैय्या पर मैं लेटाया गया, कुछ रस्म हुई जो कुछ समझ मे नही आ रही थी फिर आग की लप्टे मुझ तक आने लगी, मैनें चिल्लाया की कल तक जिसे थोड़े से खरोंच आने पर सब परेशान हो जाते थे वो आज आग मे क्यों जला रहे है|

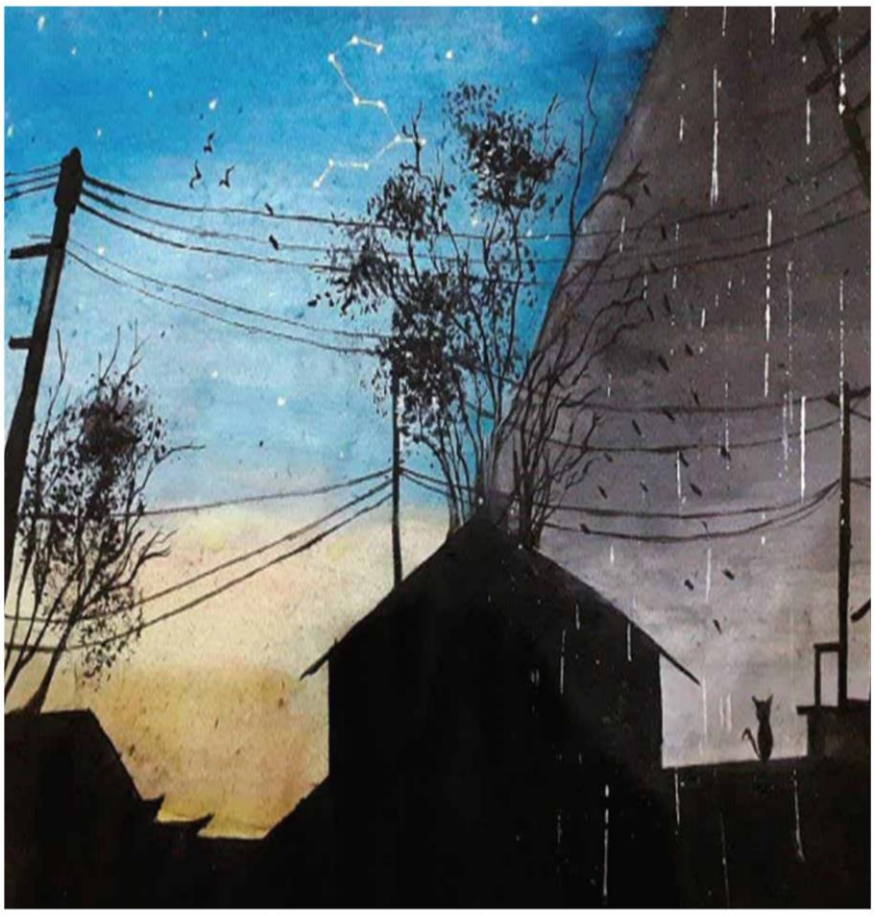
फिर कुछ लोगो चले गये अगर वो एकबार पलट जाते तो मै शायद वापस उठ जाता..... और मैंने जैसे ही किसी को पुकारने की कोशिश की मेरे सामने अंधेरा आ गया और कुछ न मै पूछ पाया न समझ पाया.....पता नहीं ये क्या हुआ | शायद यह मेरा एक नये जीवन की शुरुआत थी जिसमें मेरे उस सुबह से पहले की सारी याद थी |

फिर एक रात मै बाकी दिन की तरह आराम से सो गया.....

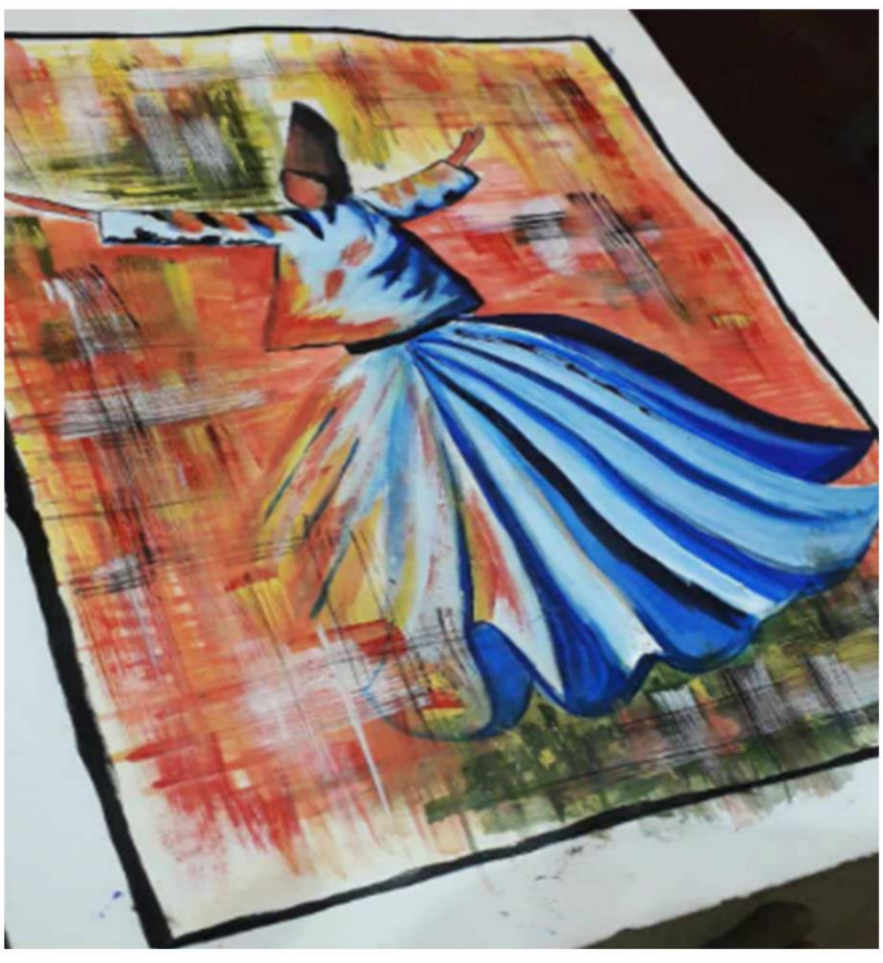
~Anubhav Satpathi

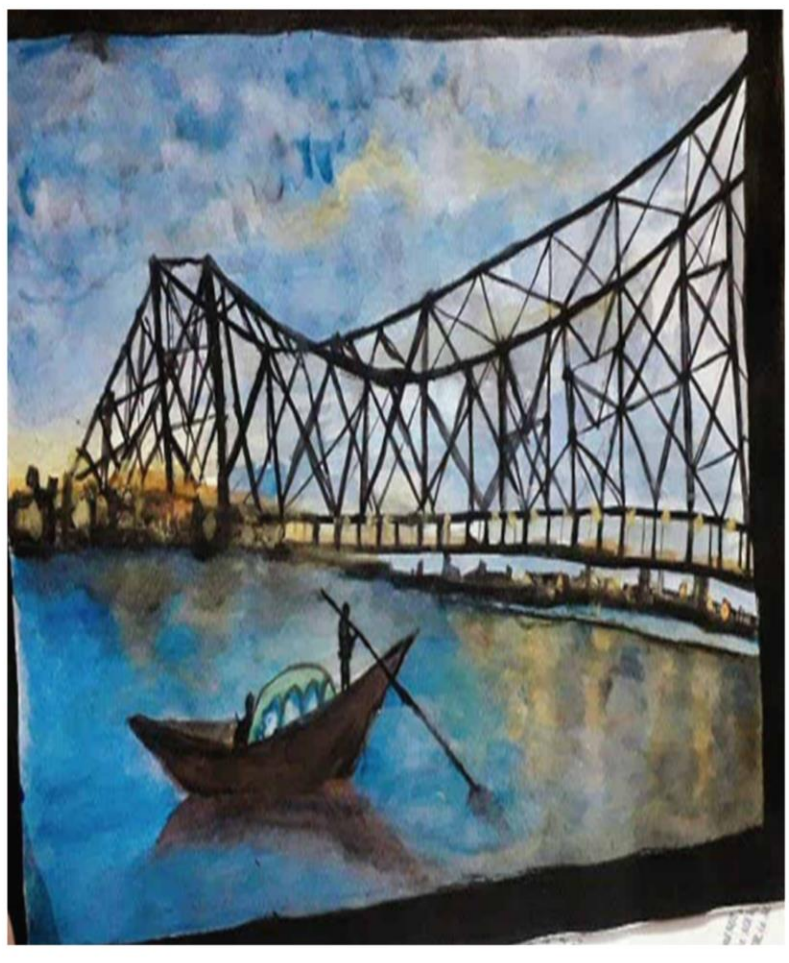
ART GALLERY

Anisha Paul



Anisha Paul





Anjali Lanjewar

Tukeshwar Sahu

Capture by Yash Lahre

INTERVIEW

with alumni/Industry person

INTERVIEW SECTION

Megha Chandrakar

Batch 2017-2021

Co-op Engineer Silicon Design, AMD

Persuing masters in power system domain from NIT Warangal

Q.1: - How was your experience in GEC Raipur?

Ans: - Talking about experience it was very nice in GEC Raipur, I have participated in many things not only in academics but also other activities like TechFest etc. and it is very important for all of us to participate in all of those things. I had great experience with faculties asking them to questions, solving doubts, taking helps regarding Projects and also my friends, faculties, environment there I had, helped me a lot for preparation of my IIT Interview. Overall, I had great experience in GEC Raipur.

Q.2. Currently which company are you working for? At what position?

Ans: - Currently I am working at AMD as a Co Op Engineer in Silicon Design Department which is a global company that specializes in **manufacturing semiconductor devices used in computer** processing.

Q.3.How is your experience there till now?

Ans: - I have joined this company on June 2022 so I have around 45 days of experience but overall experience is very nice there.

There are lots of things to learn here and it have very growing environment and every one all my mentors, managers are very supportive in nature and they are very knowledgeable so I have got good opportunity to learn from them. It’s helping me to improve my overall personality.

Q4. How did Departmental & College activities help you to grow at professional as well as personal level?

Ans: - When talking about this I was CR also of my class this helped me to improve my leadership skills, managing skills, discipline, etc. also I have participated in TechFest that also helped me to improve my creativity and technical skills, team work, public speaking etc. These all helped me to improve my personality and knowledge at personal as well as professional level. And I will recommend to everyone to participate in extracurricular activities it helps you a lot beyond academics.

Q.5. What are the important skills we should learn as an electrical engineer during our graduation?

Ans: - As an electrical engineer you should know MATLAB Simulink, script programming is very important and whether you are From Electrical/ Electronics engineer or any engineer if you want to go for job other than core field you must have basic coding skills. You should know at least one or two programming languages I.e., C / C++ / Python etc. This skill will help you to get more good job opportunities and will also help you for your higher studies.

Aadil Ashraf

Batch 2018-2022

Management Trainee in Jayaswal NECO

Q.1: -At which position and where are you working currently and how is your experience there?

Ans: - My name is Aadil Ashraf Khan, I am working as management trainee in Jayaswal NECO Industries Limited which is Integrated Steel Plant and currently, we just attended the training classes for 2 weeks (Joining Date – 4th July). So, for now I can say that the experience in JNIL is very good, they are very humble and of Helping Nature, we are just having our good times in the company for now.

Q.2: - How should we prepare for placements?

Ans: - First of all you have to decide where you want to go, IT Sector or Core Field. For IT sector you have to learn some computer Languages according to the company you

are targeting to get placed. And for Core Field you have to stick with the core subjects and study them deeply and form a habit of solving Numericals. All the Best for Preparations.

Q.3. What are the important skills/knowledge you think we should have as an Electrical & Electronics engineer for future?

Ans: - For an Electrical & Electronics Engineer You need to learn some Computer Languages, 3D Design rendering, Communication, Web developing skills, etc for covering the IT Sector Placements and you have to deepen your core subject knowledge for covering the Industries Placement.

Q.4: - How did College activities help you to enhance your knowledge/ skills?

Ans: - GEC Raipur is one of the Best College in Chhattisgarh for Learning and Developing Skills for Getting an Excellent Job but students have to initiate their curiosity for learning skills and developing your personality, which is missing among the students. So, I am advising you all, that You have to be curious for learn something you don't know because, "Even if you are a lion, you still have to go looking for food because a deer will never sit in your mouth."

Shreenidhi Pudipeddi

Batch 2018-2022

Premier Graduate Engineer Trainee

Q.1: -At which position and where are you working currently and how is your experience there?

Ans: - I'm currently working as a PGET (Premier Graduate engineer trainee), in Hexaware Technologies. I'm undergoing my Spark Training and the training is very in depth and knowledgeable. We get to practice each and everything we learn through discussions and presentation sessions.

Q.2: - How should we prepare for placements?

Ans: - °Start with learning any one of the programming languages.

°Make your Aptitude and Reasoning strong. °Brush basics of subjects like Machines, microprocessors, basic electronics, Electrical engineering like subjects

°Make your Resume simple but informative, add only the truth no need to lie , add projects and thoroughly study your project and your contribution to the project .

Q.3. What are the important skills/knowledge you think we should have as an Electrical & Electronics engineer for future?

Ans: - The subject basics are very important, make sure you do that.

Do the projects honestly and know your project.

Learn MATLAB, it'll be very helpful. Learn other circuit making software like Tinker Cad.

Subjects like Analog, Digital, Machine, microprocessors asked in many interviews so they are important. Set a goal and prepare accordingly

Q.4: - How did College activities help you to enhance your knowledge/ skills ?

Ans: - Participating in Mega placement drive taught me how to handle companies and improved my communication skills.

Working in Decoration team for AVESH, improved my leadership skills and team experience, and also helped balance my EQ (Emotional quotient)

I also worked as Secretary for AEEE, that gave me so much confidence and the sense of responsibility to work in a team and contribute my best abilities and skills.

Other than this i also worked in projects that improved my technical skills and i was able to apply my theoretical knowledge. It's not always necessary to get the expected outcome, but being persistent and consistency helps.

Q.5: - Career opportunities/scope in for EEE students?

Ans: - EEE is branch with 2 of the most in demand and ever green technology. We have a big advantage as we are open to both the Electrical engineering jobs and electronics engineering jobs.

We have the opportunity to Pick any IT job, as software engineer, front end developer, back-end developer and what not.

For Electrical engineer we have Electricity board, power plants, electric vehicle, sustainable energy, VLSI, Power corporations, Aviation power supply etc.

For electronics engineer we have, semiconductor industries which is expanding really fast. Analog and digital engineers, Telecommunication companies, aviation and aerospace companies, PLCs and industrial machine developers.

Other than this you have MBA, GATE, IES, UPSC, SSC, CGPSC, and what not.

Amartya Sharma

Batch 2018-22

Offered by TCS, Hexaware Technology, ITC Infotech India Ltd.

Q.1: -At which position and where are you working currently and how is your experience there?

Ans: - I was offered by 3 companies namely ITC Infotech India Ltd. , TCS, Hexaware Technology for the position of Associate IT Consultant, Assistant System Engineer-Trainee, Software Engineer Trainee respectively.

Q.2: - How should we prepare for placements?

Ans: - Basically you can either prepare for positions related to your stream or branch but in my case, I wanted to work in corporate sector so I started my preparation with firstly learning a coding language of your choice (I learned java), then slowly learning Data Structures and Algorithm an then just practicing it over.

Q.3. What are the important skills/knowledge you think we should have as an Electrical & Electronics engineer for future?

Ans: -All the core subjects knowledge will be enough for you to land with a job as Electrical and Electronics Engineer and please focus on Projects. They are very important when it comes to interviews.

Q.4: - How did College activities help you to enhance your knowledge/ skills?

Ans: -All the Core subjects were taught very well which might not help you in the coding exam but is often asked in the interviews.

Q.5: - Anything else you want to share?

Ans: -One should try everything and then ask yourself what was it that you were most excited about and then have a goal of acquiring skills related to that.

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