

TECHNICAL
MAGAZINE



आविष्कार

Enlightening Inventions

Sept 2021



MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. 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.
7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Program Educational Objectives (PEO).

PEO1: To prepare students to excel in Electrical and Electronics Engineering profession by providing sound theoretical knowledge, practical experience, industrial training and all round development.

PEO2: Our graduates will apply their knowledge-base and skills acquired for analysis, identification, problem formulation and design/development to solve real life engineering problems with orientation on industrial sector.

PEO3: To provide necessary personality skill development courses and software skills so as to face the challenges posed by core industries and software companies.

PEO4: Our graduates will have the necessary professional skills, high ethical standards, effective oral and written communication, and team building activities in diverse and multi-disciplinary settings, to progress in their professional endeavors, also to develop research innovation, abilities.

PEO5: Exhibit professionalism by displaying competence & leadership with commitment and keep in pace with engineering developments.

Program Specific Outcome (PSO).

PSO 01: Professional skills: The ability to understand and analyze the fundamental concepts of electrical and electronics engineering and their applications in the areas like, mathematics, applied sciences, power system, control engineering, electrical machines, power electronics, communication, microcontrollers and signal processing.

PSO 02: Problem Solving Skills: The ability to apply their knowledge for analysis, identification, problem formulation and design/development to solve real life electrical and electronics engineering problems.

PSO 03: Successful career: The ability to exhibit professionalism by inculcating the spirit of team work, innovation, entrepreneurship and to motivate the students to pursue higher education.



Technical Magazine Committee

Chief-Editor:

Prof. (Dr.) Rajveer Mittal

Editor:

Ms. Poonam Juneja

Student-Coordinator:

- Abhay Kumar Upadhyay
- Anisha Kumari
- Bharti



Message From Founder and Chief Advisor's Desk



Dr. Nand Kishore Garg
Founder & Chief Advisor, MATES

" I am extremely happy to release the LIVE WIRE Technical Magazine of the Electrical and Electronics Engineering Department, MAIT for the session between August 2021- September 2022.

This magazine, I understand has been designed to provide a broad range of information that focuses on the application of current technologies, research, developments through the latest technology innovations through the existing students and faculty members, and their practical explanations through industry experts.

I acknowledge the efforts of Prof. (Dr.) Rajveer Mittal, Head of the Department, and his Editorial Board Members in getting the magazine published.

I wish all the faculty members success and zeal to continuously work for the betterment of society. "

Message From Chairman's Desk



Sh. Vineet Kumar Gupta
Chairman, MATES

" I am gratified to know that the Department of Electrical and Electronics Engineering, MAIT has taken an initiative to publish the Technical Magazine in the month of September 2021.

This is productive as well as a great platform for the students, researchers, faculty members and industry experts to disseminate achievements in research and developments in computer science and technology.

I acknowledge the efforts of Prof. (Dr.) Rajveer Mittal, HOD. EEE, the Editorial Team, faculty members and the students of the departments for their efforts in publishing the Technical Magazine.

I also applaud the coordination and efforts by the editorial team to bring up the issue.

I wish them all a great success."

Vision

To produce technically competent human resource for electrical and electronics industry with high moral and ethical values.

Mission

To ensure transformational impact on learning community and modernization in industry by providing quality education with orientation towards research and higher education, imbining the students with moral and ethical values.

M1. To emphasize quality education by imparting highest quality teaching in a conducive learning environment for the students to meet dynamic industry and global challenges. This shall enable us to be strong provider of skilled human capital to the industry, both in core and software sectors.

M2. To develop state of the art classrooms, seminar hall and modernized laboratory. All the laboratory experiments which are normally performed with the help of hardware equipment shall be backed up and boot strapped with the software experiments.

M3. To develop a strong centre of excellence for technical education and research activities thereby promoting a creative environment for the students to address global challenges and excel at all levels.

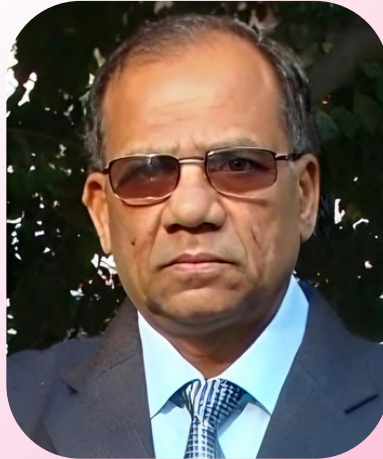
M4. Inculcating the spirit of team work, innovation, entrepreneurship and motivate the students to pursue higher education for their overall development.

M5. Enable students to be competent professionals with industrial aptitude ready to face the challenges due to globalization like energy conservation, green revolution.

M6. To enhance the position of EEE department as one of the top ranked teaching and reserch department in MAIT, GGSIPU and subsequently in India.

M7. To impart moral and ethical values and interpersonal skills to students by providing personal guidance and career counselling by our experienced faculty and staff.

Message From Vice Chairman's Desk



Prof. (Dr.) M.L. Goyal
Vice Chairman(Academics), MATES

" I am very happy that the Department of Electrical and Electronics Engineering, MAIT is releasing its Technical Magazine to commemorate technical publications and articles of faculties, Industry experts, alumni, and students for the academic year

2021-2022.

This Technical Magazine is a forum that could aptly be used to record the technical articles and research papers published by the students and faculty members. I am sure that this magazine will be informative and resourceful.

I owe my hearty appreciation to Prof. (Dr.) Rajveer Mittal, Head of the Department EEE, and her team for their sincere efforts to make the release of this magazine a reality. I wish them "The Very Best" in all their future endeavors. "

Message From Director's Desk



Prof. (Dr.) Neelam Sharma
Director, MAIT

" It gives me immense pleasure to know that a LIVE WIRE Magazine September 2021 is being published by the Department of Electrical and Electronics Engineering, MAIT. It is a platform to combine the efforts of Faculty, students and the editorial team to publish their technical work going on in the department.

Industrial and productive technical material forming the contents of the magazine will definitely be a developing a tool to the readers.

I applaud the efforts of Prof. (Dr.) Rajveer Mittal, Head of the Department EEE, Editorial team members and Co-ordinators of the team to publish this issue. I wish them success for future publications. "

Message From Head Of The Department



Prof.(Dr.)Rajveer Mittal
Head of Department (EEE)

"म दुनिया में कहीं भी रहे पर यह सत्य है कि हम वास्तविक दुनिया में बड़े हुए हैं हमारा वास्तविकता से सामना वास्तव में ही हुआ है... कपड़ों में सलवटे नापड़ने देना और रिश्तों में औपचारिकताका पालन करना है ऐसा हमें जमा ही नहीं ... सुबह का खाना और रात का खाना इसके सिवा टिफिन क्या था हमें मालूम ही नहीं... हम अपने नसीब को दोष नहीं देते... जो जी रहे हैं वह आनंद से जी रहे हैं और यही सोचते हैं... और यही सोच हमें जीने में मदद कर रही है... जो जीवन हमने जिया... उसकी वर्तमान से तुलना हो ही नहीं सकती... हम अच्छे थे या बुरे थे नहीं मालूम पर हमारा भी एक जमाना था और सबसे महत्वपूर्ण आज निसंकोच , हृदय के गहन तलसे अपने साक्षात देवी- देवता तुल्य, प्रातः स्मरणीय माताजी पिताजी भाई एवं बहन को कहना चाहता हूं कि मैं आपके अतुल्य लाड , प्यार , आशीर्वाद ,लालन-पालन व् दिए संस्कारों का ऋणी हूँ और सदा रहूंगा । खुद ही स्कूल जाना पड़ता था क्योंकि साइकिल बस से भेजने की रीत नहीं थी, स्कूल भेजने के बाद कुछ अच्छा बुरा होगा ऐसा हमारे मां-बाप कभी सोचते भी नहीं थे..."



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FACULTY CORNER



Hydrogen and fuel cell technology.
Ms. Shashibala Aggarwal, Asst. Professor,
EEE Department

Hydrogen and fuel cell technology have emerged as a promising solution for a sustainable energy future, offering a clean and efficient alternative to traditional fossil fuels. Hydrogen is the simplest and most abundant element in the universe, and when combined with oxygen, it can be converted into electricity through a process known as fuel cell technology. Fuel cells can operate at higher efficiencies than combustion engines, converting the chemical energy in the fuel directly to electrical energy with efficiencies capable of exceeding 60%. This technology has the potential to indirectly store energy for electric power generation, making it an attractive option for the deep decarbonisation of global energy systems. Hydrogen fuel cells emit only water and heat as byproducts, addressing critical climate challenges by eliminating carbon dioxide emissions. The technology has experienced cycles of excessive expectations followed by disillusion, but recent improvements in cost and performance have pointed towards economic viability. Hydrogen is used in industrial processes, as a rocket fuel, and in fuel cells for electricity generation and powering vehicles. Operators of several natural gas-fired power plants are exploring hydrogen as a supplement or replacement for natural gas. The use of hydrogen fuel cells in transportation, particularly for vehicles requiring minimal hydrogen infrastructure support, such as fleets of taxis, buses, and logistic vehicles, is also gaining traction. China has been actively developing renewable energy and hydrogen infrastructure to meet their sustainability goals and growing energy demand. The United States Energy Information Administration (EIA) highlights the potential of hydrogen fuel cells to indirectly store energy for electric power generation, while the UK's TWI organization assesses the pros and cons of hydrogen fuel cells, acknowledging their potential to provide environmentally-friendly transport.



Harnessing the Power of AI and Edge Intelligence

Ms. Neha Aggarwal, Asst. Professor, EEE

Department

Artificial Intelligence (AI) and Edge Intelligence are transforming the way we live, work, and interact with technology. AI, a simulation of human intelligence by machines, has enabled machines to learn, reason, and solve problems with human-like capabilities. Edge Intelligence, on the other hand, refers to the processing and analysis of data at the edge of the network, closer to the source of the data, rather than in the cloud or a centralized location. This convergence of AI and Edge Intelligence is revolutionizing industries such as healthcare, finance, and manufacturing, by enabling real-time decision-making, improved efficiency, and enhanced customer experiences.

Machines with AI can respond to multiple conditions and are the next generation of intelligence. AI is compared to the natural intellect of humans, as it specifically refers to a simulation of the human brain and reasoning that solves problems and makes plans based on the situation at hand. One of the most cutting-edge technological advancements is AI, which experts believe will be the foundation of our next generation. AI is transforming industries by automating and optimizing complex processes, improving customer service, and enhancing business operations.

Edge Intelligence is the processing and analysis of data at the edge of the network, closer to the source of the data. This approach enables real-time decision-making, improved efficiency, and enhanced customer experiences. Edge Intelligence is particularly useful in industries such as manufacturing, where real-time monitoring and control of equipment and processes are critical. By processing data locally, Edge Intelligence reduces latency, improves security, and enables faster response times, making it an essential component of AI-powered systems.

The convergence of AI and Edge Intelligence is revolutionizing industries by enabling real-time decision-making, improved efficiency, and enhanced customer experiences. AI-powered systems, enabled by Edge Intelligence, can process and analyze data in real-time, making it possible to respond quickly to changing conditions. This convergence is transforming industries such as healthcare, finance, and manufacturing, by enabling improved patient care, enhanced financial services, and optimized manufacturing processes. As AI and Edge Intelligence continue to evolve, we can expect to see even more innovative applications and transformations in various industries.



Integrating Renewable Energy and
Smart Grid Technology
Mr. Govind Gupta, Assistant Professor,
EEE Department

The integration of renewable energy and smart grid technology is a crucial step towards achieving a sustainable energy future. As the world grapples with the challenges of climate change, energy security, and environmental degradation, the need for a reliable, efficient, and clean energy system has become increasingly pressing. Renewable energy sources such as solar and wind power offer a promising solution, but their integration into the existing grid infrastructure poses significant technical and operational challenges. This is where smart grid technology comes in, enabling the efficient and reliable integration of renewable energy sources into the grid.

Smart grid technology, which involves the use of advanced communication systems, sensors, and automation, enables real-time monitoring and control of the grid, allowing for the optimal integration of renewable energy sources. This technology also enables the efficient management of energy storage systems, which are critical for stabilizing the grid and ensuring a reliable supply of electricity. Furthermore, smart grid technology enables the integration of electric vehicles, which can act as energy storage devices and provide additional flexibility to the grid.

The integration of renewable energy and smart grid technology also offers numerous benefits, including reduced greenhouse gas emissions, improved energy efficiency, and enhanced grid resilience. Moreover, the use of smart grid technology enables the development of new business models and revenue streams, such as demand response and energy storage services, which can provide additional revenue for utilities and grid operators.

In conclusion, the integration of renewable energy and smart grid technology is a critical step towards achieving a sustainable energy future. By leveraging the benefits of smart grid technology, we can unlock the full potential of renewable energy sources, reduce our reliance on fossil fuels, and create a more sustainable and resilient energy system.

STUDENTS CORNER

SUSTAINABLE DEVELOPMENT

Harsh Baisoya (05514804920), Abhay kumar Upadhyay (00314804920) Student,
Department of Electrical & Electronics Engg.

Sustainable development is a concept that aims to balance economic growth, environmental protection, and social equity to meet the needs of present and future generations. It recognizes that economic prosperity must be achieved in ways that do not exhaust natural resources or harm ecosystems, and that social progress must be inclusive and equitable.

Key Principles

1. **Environmental Sustainability:** This principle emphasizes the need to protect and conserve natural resources, reduce pollution and waste, and mitigate the impacts of human activities on ecosystems. It promotes the use of renewable energy sources, sustainable agriculture practices, and conservation of biodiversity.
2. **Social Equity:** Sustainable development advocates for fair distribution of resources and opportunities among all people, regardless of gender, ethnicity, or socioeconomic status. It aims to eradicate poverty, ensure access to education, healthcare, and basic services, and promote social inclusion and empowerment.
3. **Economic Growth:** While traditional economic growth focuses solely on increasing GDP, sustainable development advocates for growth that considers long-term impacts on society and the environment. It promotes sustainable business practices, green technologies, and investments in infrastructure that enhance resilience and reduce vulnerabilities.

Challenges and Opportunities:

Achieving sustainable development faces several challenges, including:

1. **Climate Change :** Addressing climate change requires reducing greenhouse gas emissions, transitioning to renewable energy, and implementing adaptation strategies to protect vulnerable communities from its impacts.
2. **Resource Depletion :** As global populations and consumption patterns increase, the sustainable use of resources such as water, land, and minerals becomes crucial to avoid depletion and ecosystem degradation.
3. **Social Inequality :** Disparities in income, access to resources, and opportunities hinder efforts towards sustainable development. Addressing social inequalities through inclusive policies and programs is essential for achieving long-term sustainability.

Despite these challenges, sustainable development presents significant opportunities:

1. ****Innovation:**** The shift towards sustainability drives innovation in technology, business models, and governance practices. Renewable energy technologies, circular economy approaches, and sustainable agriculture are examples of innovations contributing to sustainable development.
2. ****Global Cooperation:**** Sustainable development requires collaboration among governments, businesses, civil society, and international organizations. Initiatives like the Sustainable Development Goals (SDGs) provide a framework for global cooperation and collective action towards common objectives.
3. ****Resilience and Adaptation:**** Investing in sustainable infrastructure and practices enhances resilience to climate change, natural disasters, and economic shocks. Building resilient communities and ecosystems ensures long-term stability and prosperity.

****Implementation and Progress:****

Governments play a crucial role in implementing policies and regulations that promote sustainable development. International agreements such as the Paris Agreement on climate change and the Convention on Biological Diversity set targets and guidelines for countries to follow.

Businesses are increasingly adopting sustainability practices to enhance their corporate social responsibility (CSR) and respond to consumer demand for environmentally and socially responsible products and services.

Civil society organizations and grassroots movements advocate for sustainable development, raise awareness, and hold governments and corporations accountable for their commitments.

CONCLUSION:

Sustainable development is a multifaceted approach to addressing global challenges while ensuring a better quality of life for all. By integrating environmental protection, social equity, and economic prosperity, sustainable development offers a pathway towards a more resilient, inclusive, and sustainable future for humanity. Achieving sustainable development requires collective effort, innovation, and commitment from all sectors of society to build a world where people and planet thrive together.

PATENTS CORNER

BeamAtt: Genarating Medical Diagnosis from chest X-Rays using
sampling-Based intelligence
EAI/Springer Innovations in Communication and Computing book
series (EASICC).
Springer

September 2021

Aman Sawarn (42914804916), Shefali Srivastava

Dr. Monika Gupta

Medical imaging coupled with image captioning is fuelling the possibilities of generating accurate medical reports with minimal human intervention. In economically downtrodden nations, this produces opportunity for the poor to acquire world-class treatment from around the globe with an efficient time to market. Chest X-ray images are integral to the task of diagnosis and treatment of respiratory problems. In this paper, we propose BeamAtt: an end-to-end deep CNN-RNN-based encoder-decoder framework that incorporates spatial visual attention to generate a terse diagnosis from chest X-ray films. We choose to use a GRU RNN decoder as compared to LSTMs or hierarchical LSTMs from previous literature and reason via extensive evaluation for the same. To boost performance over state-of-the-art methods with complex architectures, we employ sampling-based techniques along with beam search optimisation while generating inferences and argue that a simpler framework with intelligent optimisation is able to successfully achieve higher performance metrics. We show how vivid attention plots can provide deep insight into the region of the image on which the network concentrates to generate a word token. We compare our model with recent prior art using standard evaluation metrics BLEU-1/2/3/4 and ROUGE-L and demonstrate superiority of the proposed method. BeamAtt achieves a BLEU-1 score of 0.56 and CIDEr score of 2.077 which is a significant boost in performance over contemporary solutions.

A Comprehensive IOT Based Farm Supervision
International Journal for Research in Applied Science & Engineering
Technology (IJRASET)
Google scholar

Almaas Zafar (10514804919), Abshar Imam (10914804919)

October 2021

Abstract:

Coming from a flourishing nation like India, Farming and Agriculture is the main source of income the recent stats shows it is about still IOT and application of automation and handheld devices engages an imperative role towards greatness and amelioration of the country. During these present times there have been some previous old methods being used in farming which have many limitations and also very demanding in terms of human labour and have to go out for supervision and check for any intruders or alerts or even to spray water. These conventional process have recurring costs and more demanding sometimes false human alarms or even a false crop information as a result substantial damages are foreseen hence it increases the costs and burden over the farmer. It has been observed that in some cases where farmers are cooperating with the technological advancements which are available in the present era have benefited from its fruitful outcome. The aim of this paper is to develop a smart farm supervision and protection system which comes in handy for getting regular farm alerts on a smart phone the alerts can be changed in the form of a text message or even an automated phone call hence the additional feature of this model is the improvement of crop growth according to different seasons and weather.

Persistence of Vision Display

IJERT

Google scholar

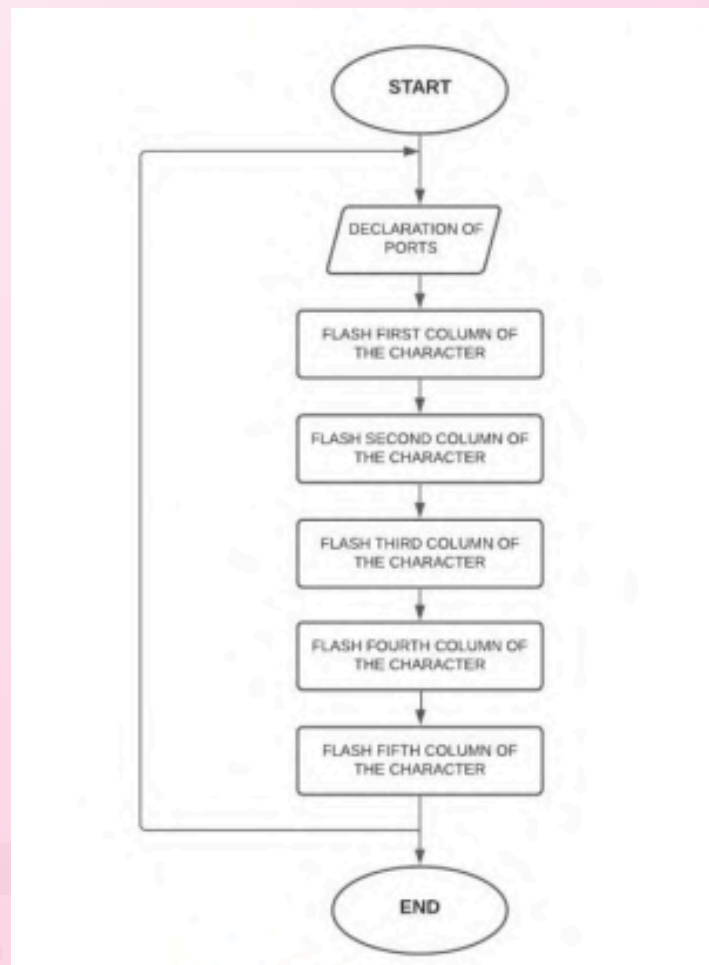
Jahnvi Mishra (42814804918), Chirag Mohan Sharma (44414804918), Shreeanant Bhardwaj (44614804918)

Ms.Ayushi Aggarwal

September 2021

Abstract:

The purpose of this project is to design and to create a persistence of vision (POV) display. The objective is to develop an LED display system which uses enormously lesser amount of LEDs and power consumption than the normal LED display and which is compact in nature using persistence of vision based technology. This display will allow users to upload an image to be displayed through wireless communication using LED lights. The rotational speed of the LED's is fast enough such that the human eye perceives a two-dimensional image. Our project focuses on meeting the tremendous growth of advertisement.



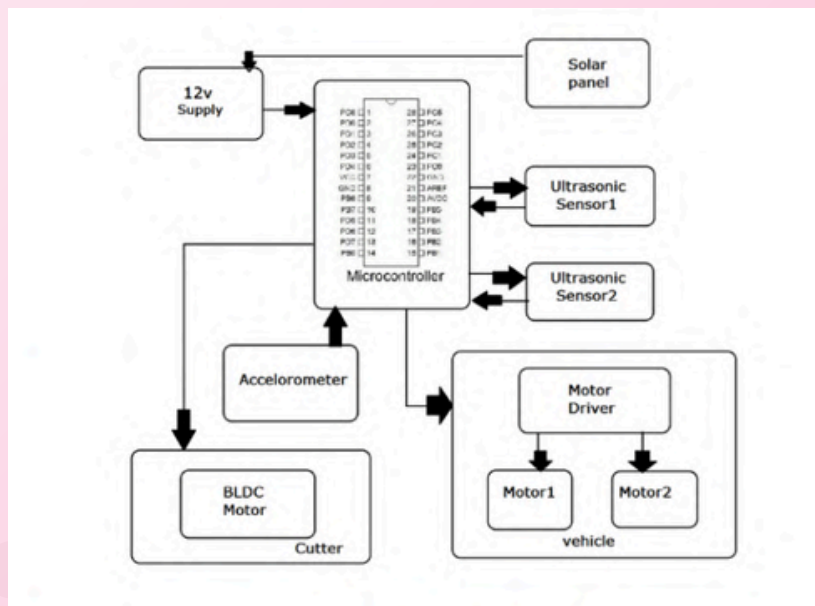
Solar Powered Hybrid Lawn Mower based on Arduino
International Journal of Scientific and Research Publications, Volume II, Issue

12,
Google scholar

Dev Khetan (03314804918), Komal Rajput (04514804918), Hritik Mittal (04114804918)
December 2021

Abstract:

Owing to the fact that grass cutter machines are getting increasingly common in today's society. Pollution is human -made, which we can be seen in our daily life. Because the IC engine was employed in older models of lawn cutters, pollutant levels increased as a result of its environmental effect. A cutter powered by an IC engine is more expensive. The cost of maintaining a traditional machine is higher. To address these issues, we want to design a new type of grass cutter that works on solar energy and is more cost-effective than the previous model. Our project's goal is to create a solar-powered lawn cutter, which will save electricity and reduce the labor workforce.



PROJECTS

8EEEI23 MAJOR PROJECT STUDENT DETAILS (2021 -2022)

S.NO.	Group ID	Project Title	Type of Project	Project Guide	Team member 1 Name	Enrollment No. Member 1	Group No. Member 1	Team member 2 Name	Enrollment No. Member 2	Group No. Member 2	Team member 3 Name	Enrollment No. Member 3	Group No. Member 3
1	123-EEE-1	Next-Gen Quantum Surveillance	Hardware and Software	Mr Jitender Lather	Anant Gangwar	01014804918	EEE-1	Anant Upadhyay	01114804918	EEE-1	Aakash Singh Azad	00914807819	EEE-1
2	123-EEE-2	IOT based safety assistance gloves	Hardware	Mr. UK Jha	Anish Chakraborty	01214804918	EEE-1	Akash Singh	00614804918	EEE-1	Abheer Singh	00214804918	EEE-1
3	123-EEE-3	A System for Device Monitoring and Control using IoT	Hardware and Software	Dr. Neelam	Bhavay Arora	02514804918	EEE2	Chinmay Bhanu Srivastava	02714804918	EEE2	Abhinav Lal	00314804918	EEE-1
4	123-EEE-4	Gesture Controlled Robot using Machine Learning	Hardware and software	Prof. SS Dewal	Eishu Pal	03614804918	EEE2	Honey Garg	04014804918	EEE2	Divyanshu Jeena	03414804918	EEE2
5	123-EEE-5	Automobile Locking,Tracking and Detection System	Hardware	Dr. Rajveer Mittal	Alok Abhijeet	00814804918	EEE-1	Mohammad Arif	0814807819		Alankar Kumar	00714804918	EEE-1
6	123-EEE-6	Image Colorization using Deep Learning	Software	Dr. Monika Gupta	Deepesh Mehta	03214804918	EEE2	Deepak Goyal	03014804918	EEE2	Dhananjaya Choudhary	01114804917	EEE-1
7	123-EEE-7	IoT Base Agriculture Automatic Irrigation Robot	Software and Hardware	Mr. Chandrakesh Shukla	Ashutosh pathak	01614807819	EEE2	Anubhav	01714807819	EEE2	Ankit Meena	00114807819	EEE-1
8	123-EEE-8	IOT Based EV Smart Parking and wireless charging System	Hardware	Dr Neelu Nagpal	Kavita Joshi	00214807819	EEE-1	Himanshu Kumar	03914804918	EEE2	Debarati Pal	02814804918	EEE2
9	123-EEE-9	LIFI based Audio and data Transmission and load control	Hardware	Mr. Lalit	Abdul samad	00114804917	EEE-1	Md Arsalan khan	01314807819	EEE-1	valbhav kumar rai	00514807819	EEE-1
10	123-EEE-10	Smart Railway Track Crack Detection System	Hardware	Ms. Poonam Juneja	Sagar Bharti	01014807819	EEE-1	Anmol Dureja	01314804918	EEE-1	Anshita pandit	01514804918	EEE-1
11	123-EEE-11	Smart Helmet for bikers	Hardware and Software	Ms Aayushi	Abhinav pratap Singh k.	00414804918	EEE-1	Sahil Singh	01514807819	EEE-1	Ashutosh	00614807819	EEE-1
12	123-EEE-12	Solar Powered Hybrid Lawn Mower based on Arduino	Hardware and Software	Mr. Rahul	Dev Khetan	03314804918	EEE2	Hritik Mittal	004114804918	EEE-1	Komal Rajput	04514804918	EEE2
13	123-EEE-13	Sun Tracking/Rotating Solar Panel using Arduino with smart street lighting system	Hardware and Software	Dr. Laxya	Harshit Sharma	03814804918	EEE2	Jagjeet Kalra	04214804918	EEE2			
14	123-EEE-14	Vehicle price prediction using Machine Learning	Software	Ms Supriya	Deep Singh	02914804918	EEE2	Ayush	00214804918	EEE-1	Kartik Katyar	04414804918	EEE2
15	123-EEE-15	Solar powered refrigerator with solar charger	Hardware	Dr. L.P Singh	Anush Kumar	01614804918	EEE-1	Ashutosh Singh	01914804918	EEE2	Harsh	03714804918	EEE2
16	123-EEE-16	Advance energy management system using roller mechanism system	Hardware and Software	Ms.Monika Bhardwaj	Ashish Kumar Verma	01814804918	EEE2	Kapil Shokeen	04314804918	EEE2	Deepanshu	03114804918	EEE2
17	123-EEE-17	Power Grid Control Through Solar and Wind Power	Hardware and Software	Ms. Govind	Divyanshu Sagar	03514804918	EEE2	Ayushya Ujjwal	02214804918	EEE2	Aayush K Binu	02414804918	EEE2
18	123-EEE-18	IOT based vehicle safety system	Hardware and Software	Mr. Shreshth	Prince	00314807819	EEE-1	Manish Sharma	00714807819	EEE-1	Ashu Kumar	01214807819	EEE-1
19	123-EEE-19	path finder with autonomous modular speed control	Hardware and software	Ms Shashi Bala Aggarwal	Aryan	01714804918	EEE2	Aviral	02014804918	EEE-2			
20	123-EEE-20	Advance Face Mask Detection System	Hardware and Software	Ms Jyoti	Imdadullah	01414807819	EEE-1	Sheikh Azharuddin	00414807819	EEE-1	Sachin Singh	01114807819	EEE-1

8EEE456 MAJOR PROJECT STUDENT DETAILS (2021 -2022)

S.NO.	Group ID	Project Title	Type of Project	Project Guide	Team member 1 Name	Enrollment No. Member 1	Group No. Member 1	Team member 2 Name	Enrollment No. Member 2	Group No. Member 2	Team member 3 Name	Enrollment No. Member 3	Group No. Member 3
1	456-EEE-1	Substation monitoring and control using microcontroller	Hardware and IoT	Prof. Rajveer Mittal	Yash Kaushik	10714804918	EEE-5	Vivek Kumar	10614804918	EEE-5	Anushka Mahajan	35514804918	EEE-5
2	456-EEE-2	Automatic phase selector with temporary fault and permanent reset	Hardware	Prof. S.S. Deswal	Sharad Soni	8514804918	EEE-4	Shivam Chaudhary	8614804918	EEE-5	Shivam Kathariya	0871480491	EEE-5
3	456-EEE-3	Multi sensor smart helmet for miners	Hardware & Software	Mr. Jitender Lather	Shivam Sharma	8814804918	EEE-5	Subasish Nayak	9514804918	EEE-5	Suchet Sharma	9614804918	EEE-5
4	456-EEE-4	Solar Based Smart Irrigation And Crop Protection System	Hardware	Dr Neelu naggal	Meghal Kaushik	4914804918	EEE-4	Naman Mittal	5214804918	EEE-4	Nirbhay Luthra	5514804918	EEE-4
5	456-EEE-5	Solar and Wind Hybrid Priority Based Voltage Supply	Software	Ms. Supriya Sharma	Pulak Ghoshal	6514804918	EEE-4	Ritik Sharma	7314804918	EEE-4	Rishabh Choudhary	7114804918	EEE-4
6	456-EEE-6	Next-Gen Quantum Surveillance	Hardware and Software	Mr Jitender Lather	Anurag	35114807819	EEE-4						
7	456-EEE-7	Dual Axis Solar tracker with Irrigation system	Hardware	Dr. L.P.Singh	Sachin Kumar	7814804918	EEE-4	Prateek Kumar	6314804918	EEE-4	Paras Gandhi	5814804918	EEE-4
8	456-EEE-8	Developing a Driver assistance system using ML and Computer Vision	Machine learning and Arduino.	Mr. U k Jha	Rishab Kr Jain	7014804918	EEE-4	Rohan raj	7514804918	EEE-4	Rohan Sharma	7614804918	EEE-4
9	456-EEE-9	Analysis And Design Of Low-Cost Hybrid Power Supply	Hardware and Software	Dr. S.K. Pandey	Rahul	6714804918	EEE-4	Raj Kumar Gupta	6814804918	EEE-4	Rohan Goel	7414804918	EEE-4
10	456-EEE-10	Power transformer fault detection system using gsm	Hardware and software	Ms. Neha	Vineet goyal	10514804918	EEE-5	Phalguni	5914804918	EEE-4	Aryan goel	35614804918	EEE-5
11	456-EEE-11	Wearable Body Sensor Network for Health Monitoring and Assessment Applications	Software and Hardware	Mr. Ravi Sharma	Preyansh Jain	6414804918	EEE-4	Sakshi Dawar	8014804918	EEE-4	Nikhil Dubhey	5414804918	EEE-4
12	456-EEE-12	Underground Cable Fault Detection	Hardware	Mr. Lalit	Pooja Sharma	6014804918	EEE-4	Pragya Sabharwal	6114804918	EEE-4	Vaishali Sharma	10214804918	EEE-5
13	456-EEE-13	Solar powered EV Charging Station modelling	Research and Software	Dr. Laxya	Prashant Asthana	6214804918	EEE-4	N Pradyumn Srinivas	5114804918	EEE-4	Rohit Kumar	7714804918	EEE-4
14	456-EEE-14	Automatic transformer load sharing System	Hardware and Software	Dr.Neelam	Nishant kumar	5614804918	EEE-4	Vaibhav Sharma	10114804918	EEE-5	Sumit Bijalwan	9714804918	EEE-5
15	456-EEE-15	IOT based smart electricity meter	hardware and software	Mr. Jitender Lather	sanchit Goyal	8114804918	EEE-5	Sanket	8214804918	EEE-5	Shubham	9314804918	EEE-5
16	456-EEE-16	Face Recognition Door Lock System Using Raspberry Pi	Hardware	Mr. S.K. Pandey	Tanvi Chadha	9914804918	EEE-5	Sarthak Jaiswal	8314804918	EEE-5	Sumit Kumar	9814804918	EEE-5
17	456-EEE-17	Analysis of Lithium Ion batteries	Hardware and software	Dr. Monika Gupta	Amartya Raj	35314804918	EEE-5	Shagun Yadav	8414804918	EEE-5	Deepak	35714804918	EEE-5
18	456-EEE-18	IoT based Solar Power Monitoring System	Hardware and IoT	Mr. Ashok Goyal	Madhur Bajpai	4614804918	EEE-4	Manmeet Kumar Tiwari	4814804918	EEE-4	Manav	4714804918	EEE-4
19	456-EEE-19	Hybrid tree	Hardware	Mr. Govind gupta	Shubham Kumar	9214804918	EEE-5	Rishabh Singh	7214804918	EEE-4	Shubham Singh	9414804918	EEE-5

7^{EEE123} MINOR PROJECT STUDENT DETAILS (2021-2022)

S.NO.	Group ID	Project Title	Type of Project	Project Guide	Team member 1 Name	Enrollment No. Member 1	Group No. Member 1	Team member 2 Name	Enrollment No. Member 2	Group No. Member 2	Team member 3 Name	Enrollment No. Member 3	Group No. Member 3
1	123-EEE-1	AI Device with Quantum Cryptography	Software & Hardware	Mr. Jitender Lather	Anant Gangwar	01014804918	EEE-1	Anant Upadhyay	01114804918	EEE-1	Aakash Singh Azad	00914807819	EEE-1
2	123-EEE-2	Smart Traffic Monitoring System	Hardware & Software	Mr. UK Jha	Anish Chakraborty	01214804918	EEE-1	Akash Singh	00614804918	EEE-1	Abheer Singh	00214804918	EEE-1
3	123-EEE-3	A Real Time Monitoring and Fault Detection System for Photovoltaic Systems	Software	Dr. Neelam	Bhavay Arora	02514804918	EEE2	Chinmay Bhanu Srivastava	02714804918	EEE2	Abhinav Lal	00314804918	EEE-1
4	123-EEE-4	Gesture Controlled Robot Using Machine Learning	Hardware & Software	Prof. SS Dewal	Elishu Pal	03614804918	EEE2	Honey Garg	04014804918	EEE2	Divyanshu Jeena	03414804918	EEE2
5	123-EEE-5	Automobile Locking System Using GSM	Hardware & Software	Dr. Rajveer Mittal	Alok Abhijeet	00814804918	EEE-1	Mohammad Arif	0814807819		Alankar Kumar	00714804918	EEE-1
6	123-EEE-6	Image Colorization using Deep Learning	Software	Dr. Monika Gupta	Deepesh Mehta	03214804918	EEE2	Deepak Goyal	03014804918	EEE2	Dhananjaya Choudhary	01114804917	EEE-1
7	123-EEE-7	Solar based water quality monitoring system	Hardware	Mr. Chandrakesh Shukla	Ashutosh pathak	01614807819	EEE2	Anubhav	01714807819	EEE2	Ankit Meena	00114807819	EEE-1
8	123-EEE-8	IoT based Electric Vehicle Charging and Parking System	Software	Dr. Neelu Nagpal	Kavita Joshi	00214807819	EEE-1	Himanshu Kumar	03914804918	EEE2	Debarati Pal	02814804918	EEE2
9	123-EEE-9	Advance LIFI base Data and Voice Transmission	Hardware and software	Mr. Lalit	Abdul samad	00114804917	EEE-1	Mid Arsalan Khan	01314807819	EEE-1	Vaibhav kumar rai	00514807819	EEE-1
10	123-EEE-10	Laboratory Simulation using Blueprints in Unreal Engine	Hardware and Software	Ms. Poonam Juneja	Sagar Bharti	01014807819	EEE-1	Anmol Dureja	01314804918	EEE-1	Anshita pandit	01514804918	EEE-1
11	123-EEE-11	Detection of power grid synchronisation failure on sensing frequency and voltage	Hardware and software	Ms. Aayushi	Abhinav pratap Singh k.	00414804918	EEE-1	Sahil Singh	01514807819	EEE-1	Ashutosh	00614807819	EEE-1
12	123-EEE-12	Smart solar grass cutter with lawn coverage using arduino	Hardware and Software	Mr. Rahul	Dev Khetan	03314804918	EEE2	Hritik Mittal	004114804918	EEE-1	Komal Rajput	04514804918	EEE2
13	123-EEE-13	Sun Tracking/Rotating Solar Panel using Arduino	Hardware and Software	Dr. Laxya	Harshit Sharma	03814804918	EEE2	Jagjeet Kalra	04214804918	EEE2			
14	123-EEE-14	Power management Strategy based on Adaptive Neuro Fuzzy Inference System For AC Microgrid	software	Ms. Supriya	Deep Singh	02914804918	EEE2	Ayush	00214804918	EEE-1	Kartik Katiyar	04414804918	EEE2
15	123-EEE-15	Economical solar powered refrigerator for rural areas	Hardware And Software	Dr. L.P Singh	Anush Kumar	01614804918	EEE-1	Ashutosh Singh	01914804918	EEE2	Harsh	03714804918	EEE2
16	123-EEE-16	Simulation of Underwater Wireless Optical Communication System (UWOC)	Hardware and Software	Ms. Monika Bhardwaj	Ashish Kumar Verma	01814804918	EEE2	Kapil Shokeen	04314804918	EEE2	Deepanshu	03114804918	EEE2
17	123-EEE-17	Power Grid Control Using SCADA	Software	Ms. Govind	Divyanshu Sagar	03514804918	EEE2	Ayushya Ujjwal	02214804918	EEE2	Aayush K Biru	02414804918	EEE2
18	123-EEE-18	Lung Capacity meter using Arduino	Hardware and software	Mr. Shreesh Prince		00314807819	EEE-1	Manish Sharma	00714807819	EEE-1	Ashu Kumar	01214807819	EEE-1
19	123-EEE-19	Adaptive system using Arduino	Hardware and software	Ms. Shashi Bala Aggarwal	Aryan	01714804918	EEE2	Aviral	02014804918	EEE-2			
20	123-EEE-20	Face Mask detection and measuring Body Temperature Using Raspberry Pi	Hardware and software	Ms. Jyoti	Imdadullah	01414807819	EEE-1	Sheikh Azharuddin	00414807819	EEE-1	Sachin Singh	01114807819	EEE-1

7EEE456 MINOR PROJECT STUDENT DETAILS (2021-2022)

S.NO.	Group ID	Project Title	Type of Project	Project Guide	Team member 1 Name	Enrollment No. Member 1	Group No. Member 1	Team member 2 Name	Enrollment No. Member 2	Group No. Member 2	Team member 3 Name	Enrollment No. Member 3	Group No. Member 3
1	456-EEE-1	Substation Monitoring and Controlling using Controllers, Sensors and GSM .	Hardware and IoT	Prof. Rajveer Mittal	Yash Kaushik	10714804918	EEE-5	Vivek Kumar	10614804918	EEE-5	Anushka Mahajan	35514804918	EEE-5
2	456-EEE-2	Lithium ion Battery Protection	Hardware	Prof. S.S. Deswal	Sharad Soni	8514804918	EEE-4	Shivam Chaudhary	8614804918	EEE-5	Aadarsh Teotia	35114804918	EEE-5
3	456-EEE-3	Body Temperature Recording using MLX90614 and Transistor Along with Buzzer Alarm	Hardware & Software	Mr. Jitender Lather	Shivam Sharma	8814804918	EEE-5	Subasish Nayak	9514804918	EEE-5	Suchet Sharma	9614804918	EEE-5
4	456-EEE-4	Efficient Hybrid Power Generation using Helical Wind Turbine And Solar Tracking System	Hardware	Dr Neelu nagpal	Meghal Kaushik	4914804918	EEE-4	Naman Mittal	5214804918	EEE-4	Nirbhay Luthra	5514804918	EEE-4
5	456-EEE-5	Analysis of MPPT techniques for Hybrid PV Wind System	Software & Hardware	Ms. Supriya Sharma	Pulak Ghoshal	6514804918	EEE-4	Ritik Sharma	7314804918	EEE-4	Rishabh Choudhary	7114804918	EEE-4
6	456-EEE-6	AC to DC Converter System	Hardware	Mr. Ashok Goyal	Vansh	10314804918	EEE-5	Shivam	8714804918	EEE-5	Anurag	35114807819	EEE-4
7	456-EEE-7	Dual Axis Solar Tracker IOT Based Irrigation System	Hardware	Dr. L.P.Singh	Sachin Kumar	7814804918	EEE-4	Prateek Kumar	6314804918	EEE-4	Paras Gandhi	5814804918	EEE-4
8	456-EEE-8	Intelligent Transportation System: Driver's Drowsiness Detection.	Machine learning and Arduino.	Mr. U.k.Jha	Rishab Kr Jain	7014804918	EEE-4	Rohan raj	7514804918	EEE-4	Rohan Sharma	7614804918	EEE-4
9	456-EEE-9	Analysis and Design of Low Cost Hybrid Power Supply	Hardware and Software	Mr. S.K. Pandey	Rahul	6714804918	EEE-4	Raj Kumar Gupta	6814804918	EEE-4	Rohan Goel	7414804918	EEE-4
10	456-EEE-10	Power Management and Energy Harvesting Techniques for Wireless Sensor Nodes	Hardware and Software	Ms. Neha	Vineet goyal	10514804918	EEE-5	Phalguni	5914804918	EEE-4	Aryan goel	35614804918	EEE-5
11	456-EEE-11	Stand-Alone Renewable Energy Operated Establishment	Software and Hardware	Mr. Ravi Sharma	Preyansh Jain	6414804918	EEE-4	Sakshi Dawar	8014804918	EEE-4	Nikhil Dubhey	5414804918	EEE-4
12	456-EEE-12	Piezoelectric Energy Harvesting Devices for Recharging Batteries	Software and Hardware	Mr. Lalit	Pooja Sharma	6014804918	EEE-4	Pragya Sabharwal	6114804918	EEE-4	Vaishali Sharma	10214804918	EEE-5
13	456-EEE-13	SCADA Simulation of Solar Powered Electric Vehicle Production	Hardware and Software	Dr. Laxya	Prashant Asthana	6214804918	EEE-4	N Pradyumn Srinivas	5114804918	EEE-4	Rohit Kumar	7714804918	EEE-4
14	456-EEE-14	Solar Inverter Using Super Capacitor	Hardware and Software	Dr.Neelam	Nishant kumar	5614804918	EEE-4	Vaibhav Sharma	10114804918	EEE-5	Sumit Bijahwan	9714804918	EEE-5
15	456-EEE-15	Hill Hold Assist	hardware and Software	Mr. Jitender Lather	sanchit Goyal	8114804918	EEE-5	Sanket	8214804918	EEE-5	Shubham	9314804918	EEE-5
16	456-EEE-16	Driver's Real Time Safety and Accident Prevention System	Hardware	Mr. S.K. Pandey	Tanvi Chadha	9914804918	EEE-5	Sarthak Jaiswal	8314804918	EEE-5	Sumit Kumar	9814804918	EEE-5
17	456-EEE-17	Research on Li-Ion Batteries	Hardware and Software	Dr. Monika Gupta	Amartya Raj	35314804918	EEE-5	Shagun Yadav	8414804918	EEE-5	Deepak	35714804918	EEE-5
18	456-EEE-18	Methodologies Involved in Designing PV Systems	Software	Mr. Ashok Goyal	Madhur Bajpai	4614804918	EEE-4	Manmeet Kumar Tiwari	4814804918	EEE-4	Manav	4714804918	EEE-4
19	456-EEE-19	Electric Vehicle Modeling using Advisor and Cell Selection Simulation	Software and Hardware	Mr. Govind	Shubham Kumar	9214804918	EEE-5	Rishabh Singh	7214804918	EEE-4	Shubham Singh	9414804918	EEE-5

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S.NO.	Group ID	Project Title	Type of Project	Project Guide	Team member 1 Name	Enrolment No. Member 1	Group No. Member 1	Team member 2 Name	Enrolment No. Member 2	Group No. Member 2	Team member 3 Name	Enrolment No. Member 3	Group No. Member 3
1	789-EEE-1	Dry Hand Wash Robo	Hardware	Ms. Poonam Juneja	Sanyam Mittal	41014804918	EEE-7	Sidharth Lamba	41414804918	EEE-7	Akhil	40914804918	EEE-7
2	789-EEE-2	Smart Kit: To monitor & control different appliances	Software & Hardware	Mr. Sheersh Garg	Utkarsh Malhotra	43514804918	EEE-8	Alankrita Singh	44114804918	EEE-8	Divya Dwivedi	43614804918	EEE-8
3	789-EEE-3	Assembly Language game	Software	Dr. Neelu Nagpal	Ayush Agarwal	43414804918	EEE-8	Abhimanyu	43314804918	EEE-8			
4	789-EEE-4	Tapless doorbell using ultrasonic sensor	Software & Hardware	Dr. Monika Gupta	Srishti Tiwari	44514804918	EEE-8	Nidhi Singh	45214804918	EEE-8	Anshika Sharma	43814804918	EEE-7
5	789-EEE-5	RF controlled Robotic Vehicle with Solar powered Temperature and Humidity Monitoring System	Software & Hardware	Mr. S.K. Pandey	Mridul Bajpai	36214804918	EEE-7	Manav Agarwal	36014804918	EEE-7	Kartik Dev Jetly	35914804918	EEE-7
6	789-EEE-6	Persistence Of Vision (POV) Display	Hardware	Ms. Ayushi Aggarwal	Jahnvi Mishra	42814804918	EEE-7	Chirag Mohan Sharma	44414804918	EEE-8	Shreenant Bharadwaj	44614804918	EEE-8
7	789-EEE-7	Barrier and pitholes detection with built in environment sensing smart vehicle	Hardware	Ms. Neha Aggarwal	Pritam Samanta	44214804918	EEE-8	Simran Arora	20114804918	EEE-8	Sanskar Srivastav	44714804918	EEE-8
8	789-EEE-8	Auto Cut off Power supply during gas Leakage(with call alert)	Hardware	Dr. L.P. Singh	Sourabh Tyagi	40614804918	EEE-7	Somya Singh	41214804918	EEE-7	Shrijeet Jha	40714804918	EEE-7
9	789-EEE-9	Contactless dynamic charging of Electric Vehicle	Hardware	Ms. Monika Bhardwaj	Rishabh Slathia	45714804918	EEE-8	Naman Kaushik	50114804918	EEE-8	Shivam	45414804918	EEE-8
10	789-EEE-10	Spinal Posture Correction with Real-Time Monitoring	Software & Hardware	Ms. Shashibala Agarwal	Mridul Goyal	44914804918	EEE-8	Rohit Sharma	36414804918	EEE-7	Himanshu Sharma	44814804918	EEE-8
11	789-EEE-11	Solar panel inverter	Software & Hardware	Prof. Rajveer Mittal	Ashish	44014804918	EEE-8	Tanmay	41114804918	EEE-7			
12	789-EEE-12	Speed Governing system using RF Transceiver	Software & Hardware	Dr. Neelam	Paras Mannan	41614804918	EEE-7	Tarun Kukreja	42114804918	EEE-7	Vaibhav Vals Raj	40314804918	EEE-7
13	789-EEE-13	Heat Sensing System using Arduino	Software & Hardware	Prof. S.S. Deswal	Saumay Vats	45014804918	EEE-8	Saurabh Kumar Bansal	45114804918	EEE-8	Pawan Gidwani	50214804918	EEE-8
14	789-EEE-14	Self driving car prototype	Software & Hardware	Mr. Ashok Goyal	Vrinda Grover	36614804918	EEE-7	Manvi Jain	36114804918	EEE-7	Divya Daga	40414804918	EEE-7
15	789-EEE-15	Office Automation using IOT	Software & Hardware	Mr. U.K. Jha	Mayank Gupta	42314804918	EEE-7	Harsh Kumar	42414804918	EEE-7	Swapnil Shanu	40214804918	EEE-7
16	789-EEE-16	Health Monitoring System	Software & Hardware	Mr. Rahul	Lakshay Dhahinwal	43914804918	EEE-8	Yakshit Gupta	42714804918	EEE-7	Rubaini	43714804918	EEE-7
17	789-EEE-17	IOT Based solar power inverter and Irrigation system	Software & Hardware	Mr. Ravi	Dhananjay Pandey	35814804918	EEE-7	Rishabh Tiwari	36314804918	EEE-7	Vaibhav Gupta	36514804918	EEE-7
18	789-EEE-18	Dual Axis Sun tracking solar panel with wireless transmission	Software & Hardware	Dr. Laxya Singla	Rohit Kumar	45314804918	EEE-8	Divyanshu	45814804918	EEE-8			
19	789-EEE-19	Automatic temperature control using Arduino	Software & Hardware	Mr. Govind Gupta	Abhishek Agarwal	41714804918	EEE-7	Abhinav Garg	41814804918	EEE-7	Shubh Batra	42514804918	EEE-7
20	789-EEE-20		Software & Hardware	Ms. Jyoti	Ashish Thakur	42614804918	EEE-7						

ALUMNI CORNER

Cirrhosis Disease Classification by using Polynomial Feature and XGBoosting
13th International conference on computing communication and network
Technologies
IEEE Xplore

Agam Goyal (00196404917), Almaas Zafar (10514804919), Manav Kumar (09114804919)

December 2022

Abstract:

Every year, over 2.8% of adult fatalities in India are caused by liver diseases. Discovering the liver illness is tough since its early phases, which will exhibit modest symptoms, are difficult to diagnose. Most often, cirrhosis disease doesn't manifest symptoms until an advanced stage, making it challenging to identify and diagnose. This paper shows different approaches to how they analyzed and visualized the performance. Medical issues can be resolved quickly and at a lower cost with the use of machine learning techniques. The major goal of this study is to increase the accuracy of result prediction and lower the price of diagnosis in the medical industry. As a result, we classified individuals with cirrhosis illness using several categorization methods. The biomedical field's use of machine learning for the prognosis and diagnosis of cirrhosis disease has had a massive effect. In the biomedical area, machine learning provides a guarantee for better illness identification and prognosis, as well as for increasing the neutrality of the judgment process.

Survival prediction of cancer patient using Machine Learning
EAI/Springer Innovations in Communication and Computing book series
(EAISICC)

Springer

Anjali Raghav (60914804916) Sharad Vaish (40214804916)

Dr. Monika Gupta

September 2021

Abstract:

Oropharyngeal carcinoma is a type of head and neck cancer caused by division of cells present in the throat, which can affect a single region or multiple regions of the throat. A commonly found disease can be fatal if not diagnosed at an early stage. Various medical methodologies have been developed with time; however, the prediction of survival is still uncertain. In this research, the medical treatment offered to patients along with detailed information about them such as their drinking habits, age, time of diagnosis, and type of cancer was taken into consideration. In this paper, comparative analysis of neural network, three bagging, and three boosting algorithms was performed for prediction of oropharyngeal cancer. The bagging algorithms considered are support vector classifier (SVC), decision tree, and random forest. Boosting algorithms are AdaBoost, XGBoost, and CatBoost. Based on accuracy, time of processing and various performance parameters CatBoost was determined as the best algorithm to predict the survival chances of a cancer patient.

आविष्कार



FACULTY OF EEE DEPARTMENT

Vision

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