ARUNAI
Engineering College
Tiruvannamalai,TamilNadu

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An ISO 9001 : 2015 Certified Institution

Department Of

Computer Science and Engineering

&

i -Grow Association

THE BYTE

**WORK HARD IN SILENCE, LET
YOUR SUCCESS BE YOUR NOISE**

**JULY
2021**

Quick Glance

- ✓ Messages…
- ✓ Student Editors Desk
- ✓ About Department
- ✓ PEOs and Pos
- ✓ Student Innovative Ideas
- ✓ Riddles
- ✓ Motivational Story
  - ▪ Thinking Out of Box
- ✓ Hear what our Alumni Says…

THE BYTE

MESSAGES

VICE CHAIRMAN'S MESSAGE

**Er.E.V.Kumaran M.E.,
Vice-Chairman**

"The Byte" is particularly important as it encourages the students to share the knowledge they have acquired. Writing articles for the magazine also improves the communication skills of the budding engineers of the CSE department. It is common knowledge that representation of an idea is as important as, if not more important, than the idea itself. "The Byte" represents a cloud with a silver lining for the world of technology. It aims to inspire and nurture upcoming engineers to bring a revolution in this ever-evolving world of technology. The magazine captures the current technological advancements.

It is my pleasure to congratulate the team that has taken the initiative for producing this magazine. It is great to find a considerable number of technical articles that certainly prove that our staff and students are adequately equipped and possess necessary skill sets to express their talent. Reading this magazine would definitely be an inspiration and motivation for all students and staff to contribute even more to the forthcoming issues. I hope that everyone would continue to give their full efforts to keep the momentum and continue to enhance the standards of the magazine

In the words of Our Great Visionary Former President of India Dr.APJ.Abdulkalam

"Learning gives creativity, Creativity leads to thinking,

Thinking provides knowledge, Knowledge makes you great."

May the QUALITY EDUCATION we impart to our students and enlighten their minds and hearts towards always aiming high.

REGISTRAR'S MESSAGE

Dr.R.Sathiyaseelan
Registrar

It is my pleasure to congratulate the team that has taken the initiative for producing this magazine. It is great to find a considerable number of technical articles that certainly prove that our staff and students are adequately equipped and possess necessary skill sets to express their talent.

Reading this magazine would definitely be an inspiration and motivation for all students and staff to contribute even more to the forthcoming issues. It is our effort to make AEC of Computer Science a top educational institution that can create IT professionals, who blend effectively, technological skills with management perspectives and to impart an inherent discipline that will help them face challenges in the future.

I hope that everyone would continue to give their full efforts to keep the momentum and continue to enhance the standards of the magazine

PRINCIPAL'S MESSAGE

**Dr.R.Ravichandran
Principal**

Pearls from the Principal Pen…

It gives me immense pleasure to note that CSE department has come out with this e-magazine, in the name of "The Byte". The wide spectrum of articles in different sections shows that our students and professors have put in a great deal of hard work and original thinking in ample measures. Each article is entertaining, interesting and absorbing. I applaud the contribution from all concerned students and faculty for their innovative thoughts and varied hues in articles articulated by them. The Editorial Board has done a commendable job in planning for and producing the magazine. My congratulations to the team who took the responsibility for the arduous task most effectively. I am hopeful that this small piece of technical work shall not only develop the taste for reading among students but also develop a sense belonging to the Institution as well. The importance of education and time is profoundly emphasized by Thomas Jefferson "Every day is lost in which we do not learn something useful. Man has no nobler or more valuable possession than time."

HOD'S MESSAGE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

**Dr.M.Jothish Kumar
HOD/CSE**

It gives me immense pleasure to lead the department of CSE. The department has well qualified and eminent faculty. The main objective of department is to develop the students both personally and professionally to achieve successful career in Industry, Research and Academics. Consequently, great advances have taken place in the field of computer science and engineering, bringing together the understanding of the scientific and technological foundations of computing, the concepts of software and hardware as well as those of Computer Science and Engineering endeavors to contribute to these advances through teaching and research in this field. It gives us a great contentment to bring it to you the department magazine of CSE. This magazine is a platform to exhibit the innovative ideas of teachers and students. The E magazine attempts to present the Department and its activities for general information to all concerned.

"The secret of success is to do the common thing uncommonly well."

-John D. Rockefeller Jr

"The Byte" magazine offers an existing platform for the students as well as faculty members to exhibit the knowledge they possess and a good change to develop the same.

A

Special

Message!

CSI CHAIRMAN'S DESK

Dr. Suresh A Shan
Chairman Computer Society of India
CSI Mumbai Chapter.

Letter from Educator Leaders Desk on Innovation and Technology for the Future... Post Covid…

An unknown Ethics to understand from known Epics.

The smallest way to look Big Why not the Biggest lessons from Nature. As a student of fellow ship from academia embracing new technologies. Focus on new patterns flipped and adaptive quality Learning. Upgrade & update with new unique concepts and industry strategies. More and More apply to cooperate and listen for the best from the global.

We should pay attention to all forms of ideas into Disruption, Innovation, & Support collaboration among the multiple institutions from the towns. Most of the new jargons and technology emerge from demand from the towns and villages. The unique special planned NEP institutions has the capacity to conduct independent innovation disruption through incubation centers. In reality such opportunities for the students and faculties do build large and powerful idea forums which results to build create to make technological choices and devise strategies for innovation.

In near future automation in all areas Challenging applications required top class end user devices and central high end virtual data center instruments. So many new models combine excellent specifications with high end with a rich experience feature set and extraordinary ease of Simple operations. The devise strategies of innovation. Through our student's projects certain responsibilities to create & build and to strengthen the local education system to adhere to all these capabilities. Come out of Comfort Zone, choose to choice the Collaboration which

is very important. Visit our villages and towns to understand the problem clearly, we have to find out solutions through innovative disruptive methods and models to facilitate the maximum adoption of new technology, invented or innovated by our students, which support the environments, society and the nation wealthier and healthier.

Over the Air Radars and Measuring the Cloud computing using wireless, broadcast media, mobility and IOT through satellite and Secured ISP remote communications. Over decades' other focus issues included accreditation and quality education assurance internationalization global technology inclusion, fundraising and institutional occupation developments and leadership global walk with governance.

Let us focus on the forward-looking vision mission for our Nations higher education quality systems. Inspire by the Global to aspire the Local towards a More Core Holistic and Multidisciplinary Education across our nation. Togetherness of all students across optimal learning environments and support systems for the students to study plan apply for his better half. Using such platforms students and faculty should actively participate get engage to put out self into the global competition. Even unique Special schemes for financial support to the students and faculty to utilize the schemes scholarships for the competitive students and faculty.

Such motivation will energize both the students and faculty to be more capable committed and compete to be better and better. Both learning and teaching is changing with pure quality and sure new era of global education systems. Similar occupation based reimagining the Vocational educations will fetch us more options and create multiple local job opportunities. In future the innovation catalyse quality academic Research in all the available and affordable fields through a new national research foundation processes. In near future such options will take us to have digitally transformed for all the basic and major security systems operated by our Regulators high participation and quality education for us to open multiple opportunities. Invest at least 5% of your time efforts and income in your upgrade and update till end of our life will give us the matured way of handling things and spending quality way of all the actions we do perform part of education during our rest of the life. What we Learnt & know is handful, what we yet to Learn & UN know is world full.

Happy reading – Dr. Suresh A Shan Chairman Computer Society of India CSI Mumbai Chapter.
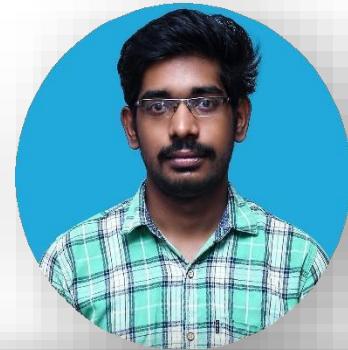
STUDENT EDITORS DESK

RUTHNA KUMAR – FINAL YEAR CSE

PRAVEEN – FINAL YEAR CSE

KARTHIKEYAN.S – THIRD YEAR CSE

ANBARASAN.A – THIRD YEAR CSE

AJITH KUMAR M–THIRD YEAR CSE

HARISH R–SECOND YEAR CSE

VISION AND MISSION

VISION

To be a National Leader in Research and Technical Education

Strive to prepare computing graduates who are highly wanted for productive and well-respected work to contributed in the field of computing areas in tune with state of art technology. Strive to carry out innovative research which adds to understanding of basic concepts. Strive to provide services to hardware and software industry through technology transfer and applied research.

MISSION

ABOUT DEPARTMENT

Computer Science and Engineering was established in the year 1993. Currently the Department offers an under-graduate program (B. E) in Computer science and engineering with an intake of 120 students and post graduate program (M.E) in computer science and engineering with an intake of 18.The primary goal of CSE is to provide best IT infrastructure, world class learning & research environment, adopt industry practices through industry collaborations and inculcate moral and ethical values. The department also focuses on infusing confidence in the minds of students and to develop them as entrepreneurs. The department endeavors to produce confident professionals tuned to real time working environment. The department offers excellent academic environment with a team of highly qualified faculty members to inspire the students to develop their technical skills and inculcate the spirit of team work in them.

PEOS

PEO1-Graduates will have successful career in Computer Science and related industries or pursue higher education and research or evolve as entrepreneurs

PEO2-Graduates will have the ability and attitude to adapt to emerging technological changes.

PEO3-Graduates will excel as socially committed engineers with high ethical values, leadership qualities and empathy for the needs of society

Program Outcomes Pos

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

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.

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

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.

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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.

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.

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

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

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.

Rain Sensing Automatic Car Wiper

Today's car wipers are manual systems that work on the principle of manual switching. So here we propose an automatic wiper system that automatically switches ON on detecting rain and stops when rain stops. Our project brings forward this system to automate the wiper system having no need for manual intervention. For this purpose, we use rain sensor along with microcontroller and driver IC to drive the wiper motor. Our system uses rain sensor to detect rain, this signal is then processed by microcontroller to take the desired action. The rain sensor works on the principle of using water for completing its circuit, so when rain falls on it it's circuit gets completed and sends out a signal to the microcontroller. The microcontroller now processes this data and drives the motor IC to perform required action. The motor driver IC now drives a servomotor to simulate as a car wiper.

Karthikeyan S
THIRD YEAR,CSE

IOT Color Based Product Sorting Machine Project

Color Based Object Sorting has a wide usage in fruit sorting as well as candy sorting industries. This system puts forward a mechanism to detect color and sort items through image processing. Once identified a mechanism is used to sort the candies into particular bins baskets. We here demonstrate this mechanism using a camera with electronic circuitry along with sorting mechanism using 3 bins. The system uses raspberry pi connected to a controller circuit to achieve this task. The controller circuit consists of a camera attached to it that detects color of a small object in front of it. A motor is used to feed an object to the camera chamber. As soon is the color is detected a signal is sent to the sorter mechanism which uses a motor to position the sorting tube towards respective section. A feeder is then used to push the object towards the tubs so that it gets sorted and next object is pulled in by the feeder. The action details are sent to the IOT server using iotgecko platform to keep track of the number of objects sorted in each section. Thus, we achieve a completely automated IOT based sorting system.

Sivapriya J M
FINAL YEAR,CSE

Secure Backup Software System

Using Software backup system, users can store files, documents, images, videos through windows application in a secured manner. In this user can store documents and files in any format which is kept in a separate folder made for each user. The stored folder is only accessible to the authorized users who can access their own folder. It's a windows application, where all the file details store in SQL Database. If the user found to be unauthorized by the admin, then admin can block a user and also can unblock it whenever required.

Abarna K
THIRD YEAR,CSE

Coupons Generation System

The proposed web based coupon management system aimed at allowing the businesses to market their services and attract new customers by providing attractive discounts to avail the services with. The discounts would be purchased as coupons through the website which can then be redeemed by the customer at the merchant location. Earlier the businesses had to rely on their own effort to market their services and on print/social media to distribute the coupons. The coupons were being distributed for free, did not generate any revenue on their own and as such the merchants could not provide attractive deals which would generate interest of the public. The customers too are on the lookout for coupons which provided deep discounts on the services they wish to avail. They will not mind paying a small fee for the collecting these coupons.

Aadhinarayanan M
THIRD YEAR,CSE

Driver Card With QR Code Identification
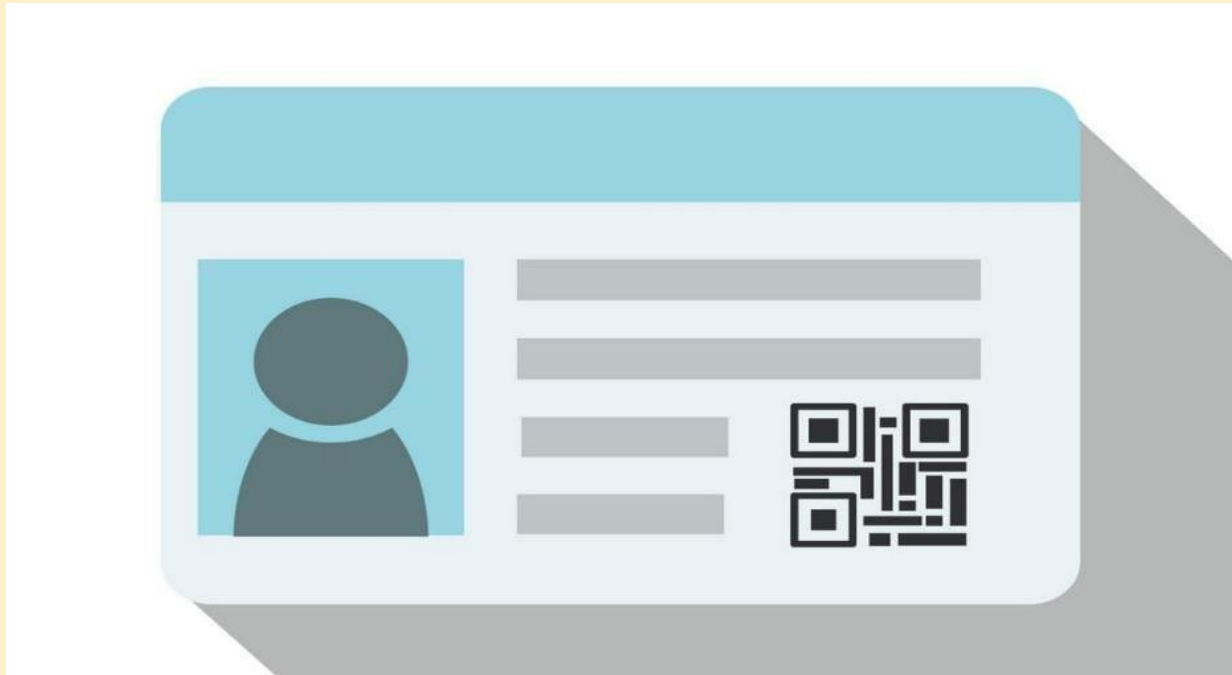
The software system tracks the reporting activities of drivers. Each driver is provided with a card that contains a unique QR code. On arriving, drivers have to scan the card where the system records the time and stores it. While going back again they have to scan it so that system noted down their leaving time. Thus the system stores the data and calculates the total amount of time that the driver has worked for in a month. Depending on per hour salary given by admin the system also calculates his total pay for the month. This project is helpful for organizations that involves pick and drop facility. Also it can be used for railway motor men and for pilots.

Kamali G
FINAL YEAR,CSE

IOT Based Antenna Positioning System
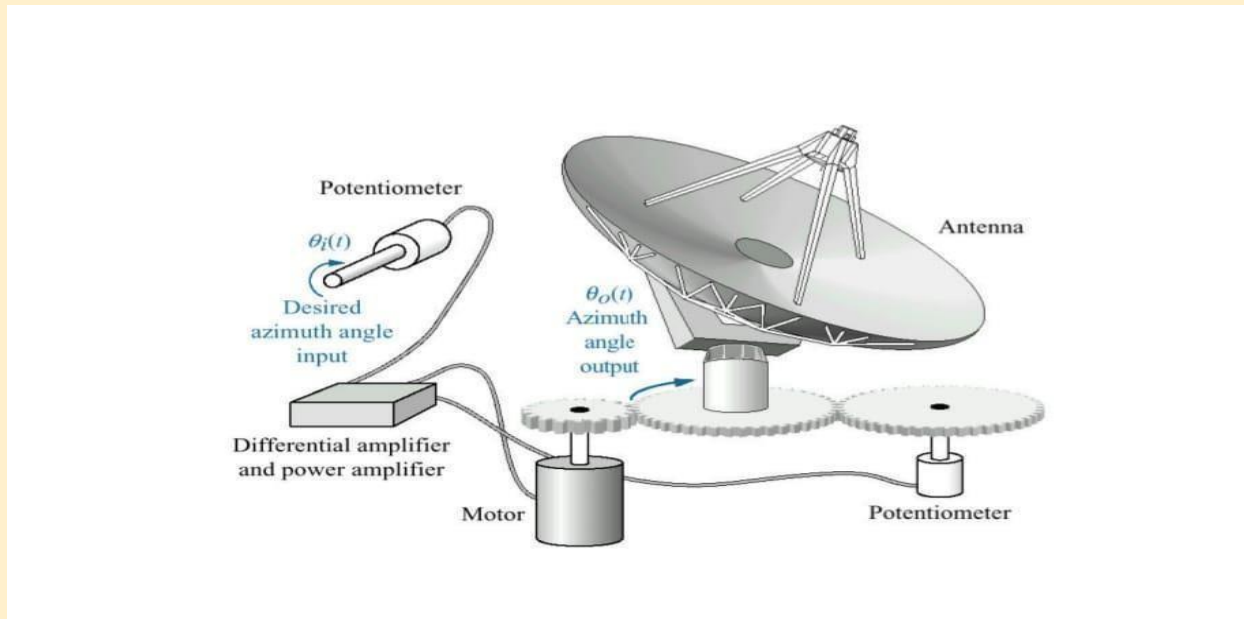
All wireless communication systems work on antennas for reception of signals. Proper positioning of antennas is necessary according to satellites/transmitters to achieve effective wireless communication. So here we propose an IOT based antenna positioning system that allows for remotely positioning of antennas based over IOT. Here we use sensor based system with motor on each antenna using antenna to check its facing direction that is transmitted over IOT. If the direction of a satellite or transmitting station changes over time, the antenna direction must also be changed accordingly. The receiving antennas may be placed far apart from each other across the globe. So our system allows for antenna positioning over very long distances. The antenna positions are visible over internet to controlling operator on the IOT GUI. We here use IOT Gecko to develop the antenna monitoring gui system. Our system allows for monitoring antenna direction as well as transmitting new coordinates to position the antenna and motor appropriately positions the antenna accordingly.

Anbarasan A
THIRD YEAR,CSE

E-Plastic Management System

E-Plastic management system is an website project in the project we are used to recycle the waste plastic. It is very helpful in order to overcome the wastage issues of the plastics. The user can able to view the list of plastic categories based on their shapes they can choose any of it. The admin used to maintain all the records. Admin also can view the users details add details of product and can also able to update the changes in the details.The management and recycling of E plastic waste is rapidly growing as it is a valuable resource of industries and it is very substances and with low recycling rate. The Utilization of e plastic waste materials is a partial solution to environmental and ecological problems. As the use of E plastic waste will reduces the Aggregate cost and provides a good strength for the structures and roads. It will reduces the landfill cost and it is energy saving. The e plastic waste consists of discarded plastic waste; these plastics are non-biodegradable components of E plastic waste as a partial replacement of the coarse or fine aggregates.

Meiyazhagan V
SECOND YEAR,CSE

Eye Bank Management
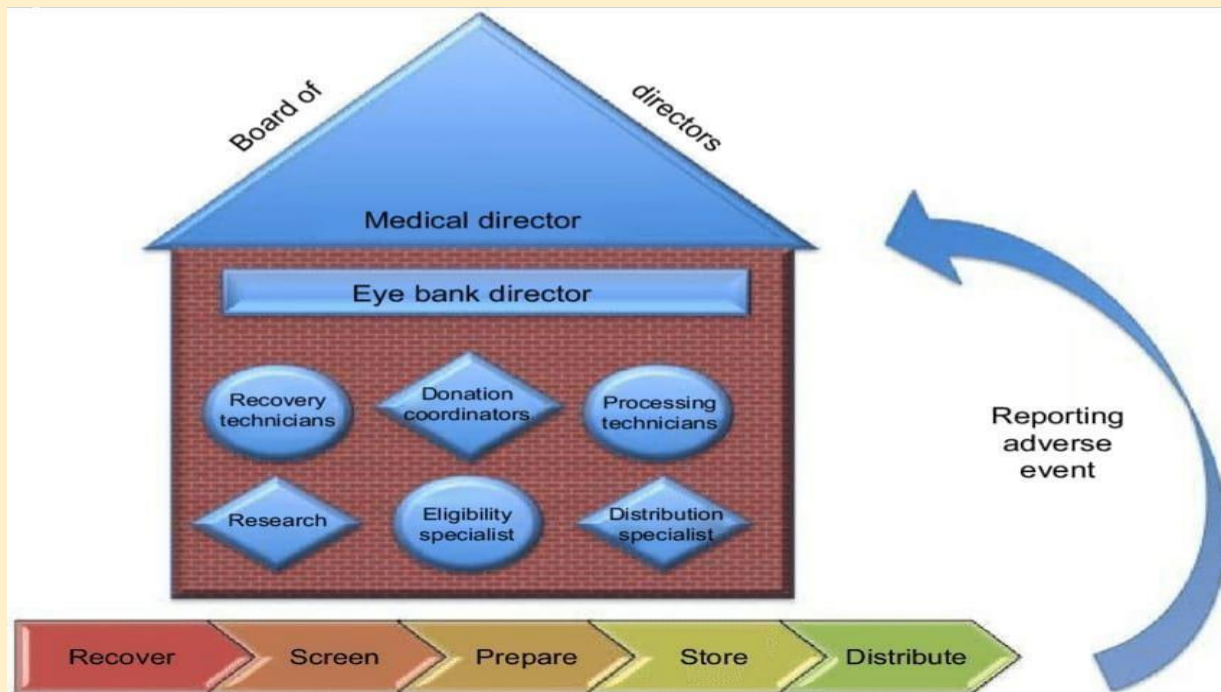
EYE BANK MANAGEMENT is a pilot project for the new eye bank that is soon going to start in the city. According to the planning of the management this bank will start operating from the very next month and they have the planning to collect tissues of eyes from various sources and distribute them to the needy people. A full fledged software is important for managing all these work responsibilities. This software helps to maintain the daily transaction records in an eye bank and it also enable to register the details of the donors, eye tissue collection details and etc. This software application is designed in such a manner that it can suit the needs of all the eye banks in the future. Every possible effort is given to implement this project successfully and if it becomes successful then we will also target the other eye banks in the city. This project uses the donor to register. So that the details can be found by either town or blood group.

Srividhya S

THIRD YEAR,CSE

Electronic Highway for Singers Java Project

"Electronic Highway for Singers" is a web application developed in java. This application provides a platform to singers to express their talent. This application provides the best platform to singers. This application allows singers to show their talent of singing songs by uploading the audio file in from anywhere and at any time which saves a lot of time. Singers can view all the details of the uploaded files and can delete the uploaded audio file if necessary. All the details of the singers and their uploaded songs can be viewed by the producer which gives fast and easy way to select singers. The producer can select singer within no time by listening to the song send by the singer as soon as he receives the song.

Abitha S

THIRD YEAR,CSE

Cloud-Enhanced Robotic System for Smart City CrowdControl
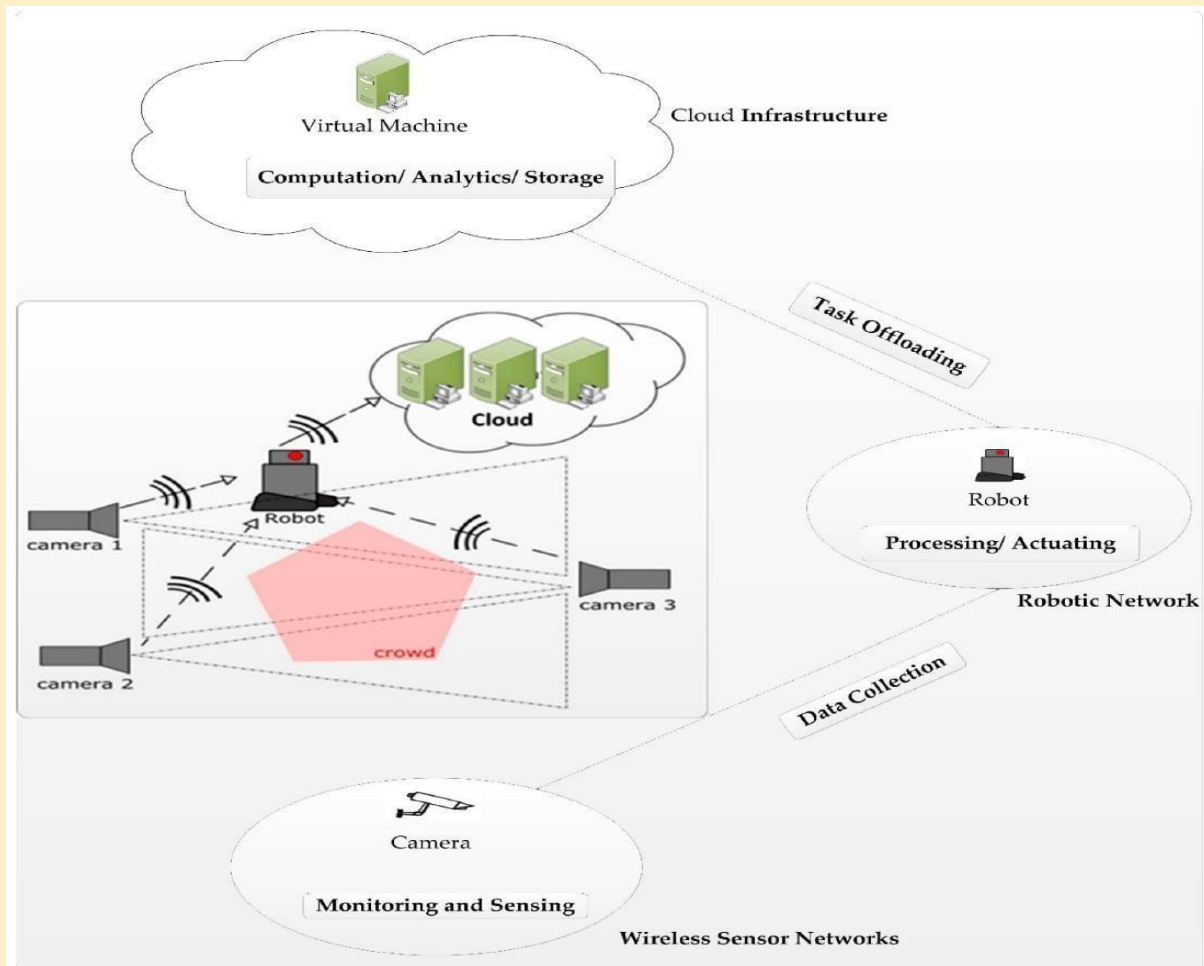
Cloud robotics in smart cities is an emerging paradigm that enables autonomous robotic agents to communicate and collaborate with a cloud computing infrastructure. It complements the Internet of Things (IoT) by creating an expanded network where robots offload data-intensive computation to the ubiquitous cloud to ensure quality of service (QoS). However, offloading for robots is significantly complex due to their unique characteristics of mobility, skill-learning, data collection, and decision-making capabilities. A generic cloud robotics framework is proposed to realize smart city vision while taking into consideration its various complexities. Specifically, we present an integrated framework for a crowd control system where cloud-enhanced robots are deployed to perform necessary tasks.

The task offloading is formulated as a constrained optimization problem capable of handling any task flow that can be characterized by a Direct Acyclic Graph (DAG). We consider two scenarios of minimizing energy and time, respectively, and develop a genetic algorithm (GA)-based approach to identify the optimal task offloading decisions. The performance comparison with two benchmarks shows that our GA scheme achieves desired energy and time performance.

We also show the adaptability of our algorithm by varying the values for bandwidth and movement. The results suggest their impact on offloading. Finally, we present a multi-task flow optimal path sequence problem that highlights how the robot can plan its task completion via movements that expend the minimum energy. This integrates path planning with offloading for robotics.

Harish R
SECOND YEAR,CSE

Wireless Red Signal Alerting For Trains

Railway networks are the biggest transportation networks used worldwide. Handling and managing such a vast network is not an easy task. The rail network consists of a lot of junctions and vast amount of signals on set distances to manage the train flow. Well the train driver needs to constantly check for any red signals on every post and decide whether to stop or move forward. It is very difficult to constantly keep track of every visual signal for the driver. So here we propose an automatic alerting system that alerts the driver of any red signal ahead. Our system works on the basis of Rf technology. Whenever a signal turns red, it sets on an rf transmitter fitted in it. The transmitter constantly transmits rf signals informing about a red signal. Now every train needs an receiver circuit on it. The receiver circuit when comes within certain range of the rf transmitter, it receives the input and sends it to the microcontroller. The microcontroller then processes this data in order to alert the driver about the signal ahead.

Vijaykumar E
THIRD YEAR,CSE

History and Future of Machine Learning
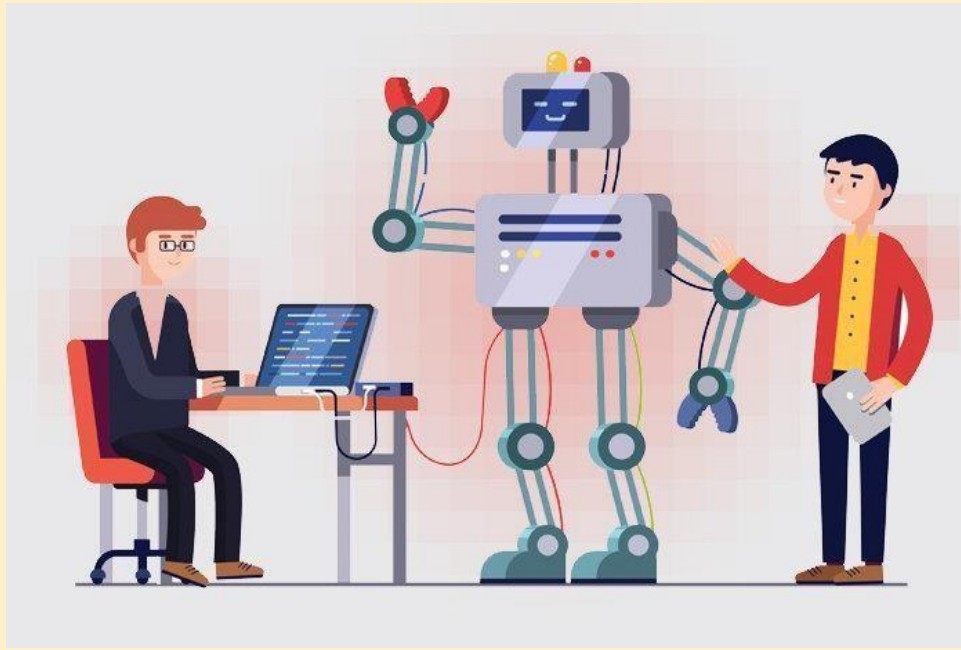
The name machine learning was coined in 1959 by Arthur Samuel. Tom M. Mitchell provided more formal definition of the algorithms studied within the machine learning field: "A computer program is said to learn from experience E with respect to some class of tasks T and performance measure P if its performance at tasks in T, as measured by P, improves with experience E." This definition of the tasks within which machine learning is concerned offers a fundamentally operational definition rather than processing it in psychologically featured terms. This follows Alan Turing's proposal in his paper "Computing Machinery and Intelligence", in which the question "Can machines think?" is replaced with the question "Can machines do what we can do?"

Machine learning is an application of computing Artificial Intelligence (AI) that has systems the power to mechanically learn and improve from expertise while not being expressly programmed. Machine learning focuses on the development of computer programs that will access knowledge and use it learn for themselves. Machine learning is closely connected to computational statistics that focuses on creating predictions using computers. The study of mathematical optimization delivers ways, theory and application domains to the spherical field of machine learning. Data mining is a field of study inside machine learning, and focuses on data analysis

through unsupervised learning. In its application across business issues, machine learning is additionally cited as predictive analytics.

In Financial Services, Banks and alternative businesses within the financial industry use machine learning technology for 2 key purposes: to spot vital insights in data, and prevent fraud. The insights will establish investment opportunities, or facilitate investors understand when to trade. Data mining can also identify clients with high-risk profiles, or use cyber security to point warning signs of fraud.

In Government agencies, like public safety and utilities have a selected need for machine learning since they have multiple sources of data that can be mined for insights. Analyzing sensor data, as an example, identifies ways to extend potency and save money. Machine learning can also help to minimize identity theft.

In Transportation, analyzing data to identify patterns and trends is important in the transportation industry that depends on creating routes a lot of economical and predicting potential issues to extend profitableness. The data analysis and modelling aspects of machine learning are vital tools to delivery companies, public transportation and other transportation organizations.

Popular Machine Learning Methods:

How do machines learn? Two Machine Learning techniques are supervised learning and unsupervised learning. Approximately 70% of Machine Learning is supervised learning, whereas unsupervised learning ranges from 10-20%. Other methods that are used less which includes semi-supervised and reinforcement learning.

Supervised Learning:

The supervised learning algorithmic program receives a collection of inputs alongside the corresponding output to search out errors. Based on these inputs, it would modify the model consequently. This is a often a style of pattern recognition since supervised learning uses ways like classification, regression, prediction, and gradient boosting. Supervised learning then uses these patterns to predict the values of the label on alternative unlabelled data.

Supervised learning is often employed in applications with which historical data predicts future events, such as fraudulent credit card transactions.

Unsupervised Learning:

Unlike supervised learning, unsupervised learning works with data sets without historical data. An unsupervised learning algorithm explores collected data to find out a structure. This works best for transactional data; for example, it helps to establish client segments and clusters with specific attributes, usually used in content personalization. Popular techniques where unsupervised learning is employed additionally embody online recommendations, identification of data outliers, and segment text topics are examples of unsupervised learning.

Semisupervised Learning:

As the name suggests, semi-supervised learning is a bit of each supervised and unsupervised learning and it uses both labelled and unlabelled data for training. In a typical scenario, the algorithm uses a little amount of labelled data with a large amount of unlabelled data.

Reinforcement Learning:

Like traditional types of data analysis, here, the algorithmic program discovers knowledge through a method of trial and error and so decides what action results in bigger rewards. Three major components form up reinforcement learning: The agent, the environment and the actions. The agent is the learner or decision-maker, the environment includes everything that the agent interacts with, and the actions are what the agent does.

Whether you realize it or not, Machine Learning is one amongst the foremost vital technology trends which underlies so many things we use. Speech recognition, Amazon and Netflix recommendations, fraud detection, and financial trading are a few examples of Machine Learning remarkably in use in today's data-driven world. Due to more and more use of it, the consequences will affect the same for the future generations.

<div align="right">

Ruthana Kumar S
FINAL YEAR,CSE

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The Future of Computer Science Within Work

Smart technologies aren't simply ever-changing our homes; they border their manner into the various industries and are boosting the work. AI has the potential to boost productivity, potency and accuracy across a company – however is that this entirely beneficial? Several concerns that the increase of AI can result in machines and robots and replacement of human employees and think about this progression in technology as threat instead of a tool to improve ourselves.

Many businesses and people are optimistic that this AI-driven shift within the work can lead to additional jobs being created than lost. As we have a tendency to develop innovative technologies, AI can have a positive impact on our economy by making jobs that need the talent set to implement new systems. 80% of respondents within the EY survey say it absolutely was the shortage of those skills that was the most important challenge once using AI programs.

It is seemingly that AI can long replace jobs involving repetitive or basic problem-solving tasks, and even transcend current human capability. AI systems are creating selections rather than humans in industrial settings, client service roles and at intervals money establishments. Machine-controlled decisioning is liable for tasks like approving loans, deciding whether or not a client ought to be onboard or

characteristic corruption and money crime. Organizations can take pleasure in a rise in productivity as a results of larger automation, that means additional revenue can generated. This therefore provides further cash to pay on supporting jobs within the services sector.

Now talking about challenges and competitions that the future generation will be facing because of advancing AI, College diplomas will no longer guarantee employment, obtaining a Masters or PhD will become a pre-requisite for human to enter the business world. With the creation of more intelligent automation, lower level jobs are being performed by humans less than they were before. With typical entry-level jobs decreasing and the number of people entering the workforce increasing, the competition for jobs will be cutthroat. But Report titled "Reworking the Revolution" estimates that new applications of AI combined with human collaboration could boost employment worldwide as much as 10 percent by 2020. Analysts expect that people will become even more dependent on networked artificial intelligence (AI) in complex digital systems.

Some say we will continue on the historic arc of augmenting our lives with mostly positive results as we widely implement these networked tools. Some say our increasing dependence on these AI and related systems is likely to lead to widespread difficulties. Responses of experts on this report, 63% who said most people will be better off, 37% who said most people will not be better off. These are all statistics and experts assumption but nobody knows what the future holds. So, what do you think that advancing AI and related technology systems will enhance human capacities and empower them? That is, most of the time, will most people be better off than they are today? Or is it most likely that advancing AI and related technology systems will lessen human autonomy and agency to such an extent that most people will not be better off than the way things are today?

Ravi Kumar K S
FINAL YEAR,CSE

Thinking Out of the Box

Once upon a time, a merchant named Sam owed a huge sum of money to Tom, a money lender. The time came when the merchant ran out of the last chance given to him to give the money back. Sam had a beautiful daughter who was very affectionate with her father. Tom asked the merchant to give all the money back failing which he will marry his beautiful daughter. Tom was not at all good looking and ill minded and so the merchant was in dilemma. Tom proposed a new condition. There was a mix of black and white pebbles on the ground where they were standing. He will take two pebbles on both hands; one will be white and the other will be black. If the daughter correctly chooses the white pebble, then Tom will write off all the debt and leave the marriage proposal too. But if she chooses the black pebble, he will write off the debt but will marry the daughter. Tom bent down to pick the pebbles from the ground and the daughter noticed that he took black pebbles on both hands. The girl had three choices- to notify the same to her father which may provoke Tom, take the black pebble and sacrifice her life or simply refuse to take the pebble which might land her father into trouble. But what she did totally surprise Tom.She took the pebble from his hand and 'accidentally' the pebble fell off from her hand to ground. She then asked Tom to see which color pebble was left in his hand to identify the color she picked. Tom had no other choice but to show the black color pebble in his hand and set both of them free.

Moral: Sometimes, life offers you situations which not only demands hard work and perseverance but some creative thinking which saves the situation.

RIDDLES

1. How many months of the year have 28 days?

2. What has hands and a face, but can't hold anything or smile?

3. It belongs to you, but your friends use it more. What is it?

4. I can fill a room, but I take up no space. What am I?

5. Which word becomes shorter when you add 2 letters to it?

6. What's the capital of France?

7. I go all around the world, but never leave the corner. What am I?

8. A bus driver was heading down a busy street in the city. He went past three stop signs without stopping, went the wrong way down a one-way street, and answered a message on his phone. But the bus driver didn't break any traffic laws. How?

9. It has keys, but no locks. It has space, but no room. You can enter, but can't go inside. What is it?

10. A railroad crossing without any cars. Can you spell that without any R's?

Answers

1. All of them! Every month has at least 28 days.

2. A clock

3. Your name

4. Light

5. The word "short."

6. The letter "F." It's the only capital letter in France.

7. A Stamp

8. He was walking, not driving.

9. A keyboard

10. T-H-A-T

ALUMNI TALK

Treat the campus like a community in which you live. You go to work every day in the classroom, but outside of that there is so much more to discover. This new adventure is an opportunity to learn about yourself through taking part in new experiences, but also a time of challenges. My advice, think of the challenges as falling forward. No matter what, you are always learning and growing, which better prepares you for tomorrow

Ramalingam R
2015-2019 Batch

I remember when I was entering my first year of college, I was extremely excited but at the same time extremely nervous. Reflecting back on the whole experience now, I would encourage incoming students to recognize that like anything in life, you'll face both ups and downs throughout your college experience. The important thing to remember is to always try your best and not let the instances where you may have fallen short hold you back from continuing to work hard and reach your full potential. Speaking more specifically about Arunai Engineering college, it is a massively rich campus with both great people and amazing opportunities. Take these next few years to really make the most of it.

Arutprakasam A
2015-2019 Batch

Finding the right path to success at the right time is really very important and for that way I had selected Arunai Engineering college. The friendly environment, the systematic approach towards imparting education at our college made me a competent individual. The wide range of activities- both curricular and co-curricular- along and the support from college is really very helpful for my future. The faculties are really very kind and approachable when any need arises. we are trained for our placements and because of that I was placed in one of the reputed companies for my internship. Today, if I am in good position it's because of what I have learnt from Arunai Engineering college.

Kalai Selvan P
2015-2019 Batch

THE BYTE

INNOVATION NEVER ENDS…