

TECH MAGZ

2022

M.KUMARASAMY COLLEGE OF ENGINEERING



**DEPARTMENT OF
ELECTRONICS AND COMMUNICATION ENGINEERING**

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OUR VISION

To emerge as a leader among the top institutions in the field of technical education

OUR MISSION

- M1: Produce smart technocrats with empirical knowledge who can surmount the global challenges.
- M2: Create a diverse, fully-engaged, learner-centric campus environment to provide quality education to the students.
- M3: Maintain mutually beneficial partnerships with our alumni, industry and professional associations.

OUR DEPARTMENT

-  The Department has a long tradition of excellence in educating, monitoring, and inspiring future technology leaders and researchers in Electronics and Communication Engineering.
-  The department offers undergraduate and post graduate programs and a recognized Research centre under Anna University where the students are involved in Industry collaborative Research, Consultancy, and State of Art Labs which contribute to social betterment.
-  Our curriculum provides a strong foundation in both the analytic and technological aspects of Electronics and Communication Engineering and explores internship opportunities in industry and world-class universities.
-  The department caters to Outcome-based Education which helps our students to learn, develop, and lead lives of impact.
-  Students are provided with ample opportunities to work on projects, skill development apart from regular curriculum, encourage to take part in national international design contest/tests / quiz, to make them competitive and industry ready.
-  The major goal of the Department is to cater to the holistic development of a student with a participative Learning Environment.

DEPARTMENT VISION

To empower the Electronics and Communication Engineering students with emerging technologies, professionalism, innovative research and social responsibility.

DEPARTMENT MISSION

M1: Attain the academic excellence through innovative teaching learning process, research areas & Laboratories and Consultancy projects.

M2: Inculcate the students in problem solving and lifelong learning ability.

M3: Provide entrepreneurial skills and leadership qualities.

M4: Render the technical knowledge and skills of faculty members.

Program Educational Objects (PEO)

PEO1: Graduates will have a successful career in academia or industry associated with electronics and communication engineering.

PEO2: Graduates will provide feasible solutions for the challenging problems through comprehensive research and innovation in the allied areas of electronics and communication engineering.

PEO3: Graduates will contribute to the social needs through lifelong learning, practicing professional ethics and leadership quality.

Program Outcome (PO)

Po1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: 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.

PO3: 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.



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 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 multi disciplinary setting.

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 engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects 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.

Program Specific Outcome (PSO)

PSO1: Applying knowledge in various areas, like Electronics, Communications, Signal processing, VLSI, Embedded systems etc., in the design and implementation of Engineering application.

PSO2: Able to solve complex problems in Electronics and Communication Engineering with analytical and managerial skills either independently or in team using latest hardware and software tools to fulfill the industrial expectations.

CONTENT

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VALUE ADDED COURSES



Department of Electronics and Communication Engineering had conducted a value-added course on "VLSI AND EMBEDDED IOT PROGRAMMING, VLSI DESIGN AND VERIFICATION, MICROWAVE COMPONENTS DESIGN USING HFSS, FOUNDATIONS OF C PROGRAMMING" in the academic year 2021-2022 from 11/07/2021 to 15/07/2021. In this internship training, 240 students of ECE department have taken part actively and got certificates.

SKILL SET FROM OUR STUDENTS



BINCOIN

B. Abiraja, S. Ashwin,
R. Bhuvanesh, A. Boopathi
(2020-2024)

The main objective of the project is to design a Bincoin which will help in keeping our environment clean and also eco friendly. We are inspired from Swaach Bharat Mission. Nowadays technologies are getting smarter day-by-day so, as to clean the environment we are designing a smart dustbin by using Arduino. This smart dustbin management system is built on the microcontroller. If dustbin is not maintained then these can cause an unhealthy environment and can cause pollute that affect our health. Here, this project came with Top Reasons and the Advantages of using the Waste Bins Properly. In this proposed technology we have designed a advanced smart dustbin using some major components such as ARDUINO UNO, along with QR scanner, servomotor, battery jumper wire. After all hardware and software connected. Now Smart Dustbin program will be executed. Dustbin lid will open when someone scan their respective QR code which consists of their reference id and upi details near at some range then wait for a while to put garbage inside the smartbin and closes within a programmed interval of time. then he person who put the garbage in our bincoin, account will be credited accordingly.

BEAD TOOTH

S. Archana, K. Bhavadharani,
R. Dharshini , K.V. Elakkiya
(2020-2024)

Bluetooth technology allows devices to communicate with each other without cables or wires. Bluetooth relies on short-range radio frequency, and any device that incorporates the technology can communicate as long as it is within the required distance. The technology is often used to allow two different types of devices to communicate with each other. This Paper often find that wireless devices receive constant interference by others operating on the same frequencies. This is not an issue with Bluetooth as it utilizes technologies the limit the risk of this increasing the bandwidth of the frequency to transfer the data to a particular distance. Normal Bluetooth technology uses short-wavelength UHF radio wave of a frequency range between 2.4 and 2.485 GHZ. So by increasing the size of file transfer (MB) and bandwidth the BEAD TOOTH is implemented.

WATER MONITORING SYSTEM USING IOT

S.Aswath, N.Arunkumar, P. Balaji
(2020-2024)

Water is an important resource for life and Existence. Nowadays, due to increase in migration from a Rural area to urban areas, the population in cities is Increasing rapidly. To satisfy the water requirement and Water monitoring needs, we are proposing an Approach which is based on IoT (Internet of Things). In This paper we present an IoT based model for water level And monitoring. The data will be collected using Sensors and accessed on real time basis through website.The proposed system consist different sensors like water Flow sensor, Solenoid valve, water control valve, Including of heat sink , regulators. With help of embedded coding software and push notifications. The Data received from the sensors is processed by a Microcontroller and sent to the control unit via a wireless Communication module.

FEED BACK SYSTEM USING IOT

P. Aarthi, S. Arthi, S. Harini
(2020-2024)

We have designed a feedback system for faculties and Election voting system using finger prints sensor module. This module senses the authenticity of the students votes which enhances the feedback system for faculties. Comparing with previous model, authenticity of the voting system increases. Here we have proposed, the finger prints sensor which enhances the authentication. This system will identify the unauthorized people during the casting of vote. In previous model, the un authorized person may be allowed by human intervention. But in this model, there is no human intervention. Once the person has completed his casting of vote, the next time the person won't be able to cast vote. This technology will help for the society to select their leaders/faculties appropriately.

DESIGN A DOUBLE GATED MOS2 TRANSISTOR

K.S. Elachezian, T.Hariharan,
M. Harish, S. A. Deepan
(2020-2024)

In this work, a double gated molybdenum disulfide (MOS2) transistor has been designed using TCAD simulation software. The molybdenum disulfide Material is used as a channel material in the proposed structure due to the unique properties of MOS2. we have obtained higher drain current value compared with conventional material. Hence, this double gate MOS2 based, it is used in future electronics application and biomedical application.

SMART HELMET

R. Jothipriya ,P. Joshika,
R. Nandhini,T. Mathumitha
(2020-2024)

As we can see many accidents occurring around us, there is a lot of loss of life. According to a survey of India there are around 698 accidents occurring due to bike crashes per year. The reasons for the accidents may be many such as no proper driving knowledge, no fitness of the bike, rash driving, drink and drive etc. In some cases the person injured the accident may not be directly responsible for the accident, it may be fault of some other rider, but end of the day it's both the driver involved in the accidents who is going to suffer.

HEARTBEAT SENSOR USING ARDUINO

M. Monisha, K. Monish,
P. Lavanya, R. Nageswari
(2020-2024)

Heartbeat Sensor is an electronic device that is used to measure the heart rate i.e. speed of the heartbeat. Monitoring body temperature, heart rate and blood pressure are the basic things that we do in order to keep us healthy. In order to measure the body temperature, we use thermometers and a sphygmomanometer to monitor the Arterial Pressure or Blood Pressure. Heart Rate can be monitored in two ways: one way is to manually check the pulse either at wrists or neck and the other way is to use a Heartbeat Sensor. In this project, we have designed a Heart Rate Monitor System using Arduino and Heartbeat Sensor. You can find the Principle of Heartbeat Sensor, working of the Heartbeat Sensor and Arduino based Heart Rate Monitoring System using a practical heartbeat Sensor.

DROWSINESS DETECTING SENSOR

P. Kalaivani, R. Meha,
A. IndiraA, R. Madhupriya
(2020-2024)

In this project, we are going to build a driver drowsiness detection system that will detect if the eyes of the driver are close for too long and infer if the driver is sleepy or inactive. This can be an important safety implementation as studies suggest that accidents due to drivers getting drowsy or sleepy account for around 20% of all accidents and on certain long journey roads it's up to 50%. Hence that is what we are going to build today – Driver Drowsiness Detection System. Similar to yawning- based method a camera records the driver's face and checks if the driver's eyes are closed or open. The estimated average blinking duration is between 100-400ms according to the Harvard database of useful biological numbers. If the camera sees that the eye of the driver closes for a duration far more than that it marks the driver as asleep and some sort of alarm raised. This method has proven to be the most effective measure and easiest to implement providing satisfactory results. Hence we are going to be using the same for our project, along with yawning measurement.

AUTOMATIC POWER GENERATOR

R. Kowsigan ,M. Manikandan,
R. Karthick, S. Nandheswaran
(2020-2024)

The Automatic power Generator is a device which is used to generate Electrical energy based on neodymium magnets principle. The free energy generator is one type of generator which generates electrical energy. The invention provides an energy-free energy generator. The energy-free energy generator relates to a power tool which needs no fuel and no electric power supply, is light and rapid and has strong power and aims at saving the earth and eliminating haze.

AUTOMATIC SOLAR TRACKER

K.M.S Logaraj, R. Kawaskar,
D. Krishnaraj S. Kavim
(2020-2024)

Solar tracker, a system that positions an object at an angle relative to the Sun. The most-common applications for solar trackers are positioning photovoltaic (PV) panels (solar panels) so that they remain perpendicular to the Sun's rays and positioning space telescopes so that they can determine the Sun's direction. Increases the efficiency of the solar panel by keeping the solar panel aligned with the rotating sun. Solar tracking is a mechanized system to track the sun's position that increases power output of solar panel.

TEMPERATURE MONITORING FAN CONTROLLER

S. Loheshkumar, E. Nagaraj,
A. Muthuprakash, P. Logeswaran
(2020-2024)

This practical temperature controller controls the temperature of any device according to its requirement for any industrial application also has a feature of remote speed control. The LM-35 Analog temperature device is interfaced to analog pin of Arduino board, where it has built in ADC which converts these analog reading and displays it on a LCD, which indicate the temperature of the device. User defined temperature settings can be done by using push buttons provided through Arduino board.

SMART CLASSROOM USING IoT

K. Bharanidharan ,J. Athavan,
K.Deepak, P. Gopalakrishnan
(2019-2023)

IoT can be termed as Internet of Things, one of the collaborative networks that may interact with each other. This kind of technology creates a separate communication path with the help of cloud computing services. Some of the networks may result in connection and making a better way of sensor communication over millions and billions of devices. In such case by utilizing the benefits of IoT, through this project we have developed a model that controls the entire classroom connections which can be controlled using a mobile application. One of the main motives of IoT is to set up a real-time collection of sensors or any other related data to serve for further interactions. Mainly, the system can be managed in three different terms: Smart Devices, Applications of IoT, and Graphical Interfacing. According to the technologies behind the IoT-based systems, Low power Wide Area Network plays one of the significant roles in replacing the IoT connection; this kind of communication path is a bit expensive, but still, now most industries prefer such techniques. In the upcoming 5G era, we will face machines that are handled with the care of IoT; most cellular networks make viable the IoT type applications by creating connections between cars and various transportation development.

ATTENDANCE MANAGEMENT SYSTEM

S. Hemalatha, P. Janani,
S. Janani, E. Keerthana
(2019-2023)

Student Attendance Management System deals the maintenance of the student's attendance details. It generates the attendance of the student on the basis of the presence in the class. It is maintaining daily basis of the attendance, the staff will be provided with the separate username and password to ensure the student's attendance. The staff who is handling the particular subject is responsible to initiate the attendance of all the students. Only if the student present at the particular date, the attendance will be calculated on that basis. The student attendance report based on monthly consolidation will be generated

WALL PAINTING USING DRONE

K. Dhanavel , B. Dharun,
N. Dinesh, P. Gokul Nishanth
(2019-2023)

In the modern era, enough technological crises have developed in recent days. Most of the essential functions are being monitored using Drone technology. A drone is a flying robot that the user can control remotely autonomously. According to the principle that Drone follows, it is being handled with software-controlled flights designed with the knowledge of embedded systems. In our project, we have created a system using a Drone, which helps paint a large wall without any human power. According to the Drone principle, only the controllers operate the method according to the necessity. While seeing the accuracy of the result, its range crosses over 98% of accuracy in both controlling the Drone and the operation such as painting. In the future, Drones can be modified in different sets according to technological development. The uses and necessity of the Drone will increase the most.

AUTOMATION PEOPLE COUNT IN METRO TRAIN

P. Lakshmipriya ,P. Madhubala ,
P. Jayaswetha, S. Kaviya Sri
(2019-2023)

This paper is designed to demonstrate the technology used in metro train movement. This proposed system is an automatic train and it eliminates the need of any driver. In this project arduino has been used as CPU. Whenever the train arrives at the station it stops automatically, as sensed by an IR sensor. Then the door is opens automatically so that the passengers can go inside the train. The door then closes after the prescribed time set in the arduino by the program. It is also equipped with passenger counting section, which counts the number of passengers present in the train. The passenger counts are displayed on the LCD module interfaced to the arduino. The train incorporates a buzzer to alert the passengers before closing the door. Further the project can be enhanced by making the system more advanced by displaying the status of the train over an LCD screen. The voice module IC used for the audio announcement of station.

IOT ENABLED SMART DUSTBIN

R. Manivel, C. Kamesh,
P. Mohan , P.Manikandan
(2019-2023)

Every human being disposes of rubbish in a dustbin or in other locations. Plastics, both biodegradable and non-biodegradable, make up the garbage. Everyone is attempting to dispose of rubbish solely in a dustbin or garbage can. There are many public sites in cities where we see dustbins or waste bins, but they are overflowing. As a result, the environment becomes unsanitary. It also causes certain serious illnesses. At the same time, an odour pervades the city, polluting the environment. Everyone disposes of their rubbish in a trash can or elsewhere. The waste is made up of both biodegradable and non-biodegradable polymers. Everyone wishes to dispose of their garbage in a trash can or dustbin. Garbage cans or bins can be found in a variety of public settings around cities, although they are frequently overflowing. As a result, the local environment becomes unclean. It has the potential to create a variety of major health problems. At the same time, the city is filled with a bad odour that is damaging the environment. In the current smart garbage collection system, when a smart dustbin fills up with waste, an alarm is transmitted to the parent server, which is connected to the system server through Wi-Fi.

MOBILE PHONE DETECTOR USING LM358IC IN CLASS ROOM

S. Shanmuga Priya, C. Santhiya
A. Preethi Shre
(2019-2023)

This mobile phone detector can sense the presence of an activated mobile phone from a distance of four to five meters. So it can come handy in an examination hall or meetings where mobile phones are not permitted. The circuit can detect incoming and outgoing calls, SMSes, Internet and video transmissions even if a mobile phone is kept in silent mode. When it detects an RF signal from an activated mobile phone, its LED starts blinking and continues to blink until the signal stops.

AUTOMATED BIRD REPELLER USING IOT

K. Naveenraj, M. Prasanth ,
Ragupathi, S. Saran
(2019-2023)

Agriculture plays a vital role in contributing to one-third of India's Gross Domestic Product and a significant part of the country is relying upon it for their survival. The annual income of farmers is largely dependent upon the yield of crops that they produce, which is continuously decreasing due to a number of factors and one such factor that we are focusing on is the damage caused by birds. By taking into consideration the statistical survey of farmers on the percentage damage of crops due to birds, we would like to propose the model and prototype of an automated bird repeller system using IoT devices.

AN ELECTRONIC VOTING SYSTEM WITH AN AUTOMATIC IMAGE COMPARING SYSTEM

K.M. Santhosh, K. Santhosh Kumar,
D. Saravana Kumar, S. Saravanan
(2019-2023)

Professional Athletes and all the car drivers, bicycle riders etc needs to invest a lot of time in practicing. They have to measure even the time in their race practice so that they can perform better in the main event. Hence, to make their job a bit easy a device has been introduced which is known as "AUTOMATIC PRACTICE RACE TIME MEASUREMENT". This device is an automated device which can help the professional athletes and car drivers in measuring their starting and finishing off the race timing. It is an instrument with a button is made to wear on the wrist of the athlete. As soon as athlete starts the race he has to press the start button given in the instrument to start the timer. When he crosses the finishing line the IR sensor there gets cut stopping the timer. The exact time will get freeze into the device and it will tell the details even of milliseconds. Later, an athlete can reset it for next race. This unique device is basically developed so that the problems of athletes and car drivers can be depreciated. As this device tells the minutes details, it helps a lot them in judging their performance. Apart from all this, the device reduces the problem of finance of them (athletes) as its cost is very economical and can easily afford by them.

MULTIPLE LOAD CONTROLLER FOR INDUSTRY USING ARM CORTEX

K. Vasantharaj, M.K.Tharnees,
M.Thamilvanan , S. Yogeshwaran
(2019-2023)

Motors have a large scale use in industries for automation purposes, In many cases such as bottling lines, packing machinery lines, packing lines, and other automation lines. One synchronization error can damage the manufacturing process. Here we demonstrate a multiple motor synchronization system that synchronizes the movement of multiple motors to demonstrate the concept. Our system uses ARM cortex to control motors with synchronized movement as well as speed for batch automation processes to work smoothly. We use PWM signals to operate motors at desired speeds and the ARM processor constantly supplies PWM while maintaining synchronization between motors to achieve desired process synchronization

DESIGN OF ULTRA WIDE BAND UAV ANTENNA

S. A. Suryaa, J. Shanmugapriyan
S. Sriram ,K. Yogaprakash
(2019-2023)

To design an antenna with low-profile structure which is very suitable to diminish aerial vehicle drag problem. The design utilizes Rogers Duroid 5880LZ material with dimensions of 29 mm-39 mm. The measurement results show an ultrawideband performance from 2.9 GHz to 15.9 GHz. A Y-rounded shape achieves this frequency range with a parasitic circular element at the center of the structure. The acceptable radiation pattern performance is until 10.1 GHz, and the system fidelity factor is $SFF > 0.9$ in the maximum radiation. This antenna can be simulated and measured to test its performance when it is mounted on an UAV model.

WIRELESS DOOR LOCK SYSTEM

G. Sinduja, M. Srimathi ,
K. Yogalakshmi
(2019-2023)

Physical keys and a lock are the basic requirements for a door. However managing these keys has become cumbersome. To overcome this, we present a solution which is a smart and a secure way of remote-controlling the door using a smart phone. we are going to make a smart OTP-based locking system . This smart lock can generate a new password every time you unlock it, which further enhances your security level. This new device is much safer than the traditional key-based system and electronic wireless lock system. If you are still using the key-based system, you are likely to land in a big problem if your key gets lost or stolen. The electronic wireless lock system is not safe either. You might forget the password and there is also a high risk being hacked .For your safety and security, we bring to you a DIY smart lock that has the capability to remove all these security threats and problems.

PREDICTION OF CAR SALE USING DATA ANALYST

R. Veeradharshini, R. Sriragavi,
P. Shubiksha , M. Vandhana
(2019-2023)

Due to the unprecedented number of cars being purchased and sold, used car price prediction is a topic of high interest. Because of the affordability of used cars in developing countries, people tend more purchase used cars. A primary objective of this project is to estimate used car prices by using attributes that are highly correlated with a label (Price). To accomplish this, data mining technology has been employed. Null, redundant, and missing values were removed from the dataset during pre-processing. Among all the experiments, the Random Forest Regressor had the highest score at 95%, followed by 0.025 MSE, 0.0008 MAE, and 0.0378 RMSE respectively. In addition to Random Forest Regression, Bagging Regression performed well with an 88% score, followed by Linear Regression having an 85% mark. A train-test split of 80/20 with 40 random states was used in all experiments. The researchers of this project anticipate that in the near future, the most sophisticated algorithm is used for making predictions, and then the model will be integrated into a mobile app or web page for the general public to use.



Students Co-Curricular Activities

Department of Electronics and Communication Engineering conducted an Co-Curricular activities. Students participated various activities in various colleges events and Presented Papers at International Conference on various Trending topics , Submitted their project ideas in project Exhibition, Quiz Contests, There 145 students of our department participated Co-Curricular activities and many won prizes on their Activities and Awarded cash prizes and many got Appreciation certificates.

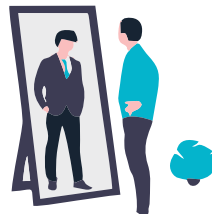


Online Courses



Department of Electronics and Communication Engineering had conducted a MOOC Course on Cisco Networking Academy Courses in the academic year (2021-2022) ODD & EVEN Semester. In this courses, 419 students of ECE department have participated, got good grade and certificates of the same.

Students Placement Records



Placement 2022

Students from The Department of Electronics and Communication Engineering has placed in reputed Multinational Companies in both IT and Core field. Many of them has got placed in companies like "TCS, CTS, Infosys, Wipro, Virtusa, Hexaware, Kaar. and in Core filed our students has placed in companies like siennaecad, Tessolve etc.

Sr. No.	Registration/Enrollment No. of the student in your institution	Name of the Student
1	18BEC4002	AATHISH R
2	18BEC4003	ABISHEK K
3	18BEC4005	AJAY M
4	18BEC4006	AKHIL VARGHESE J
5	18BEC4007	ANANDARAJ M
6	18BEC4008	ANAGALA PARAMESHWARI
7	18BEC4009	ANISHA P
8	18BEC4010	ARCHANA M
9	18BEC4011	ARULSELVAN S
10	18BEC4012	AVANTHIKA T
11	18BEC4013	BALASUBRAMANIAN
12	18BEC4014	BALASUBRAMANYAM S
13	18BEC4015	BERLIN S N
14	18BEC4016	BHUVANESHWARAN R
15	18BEC4017	CHARANYAMEENACHI S
16	18BEC4018	CHARLES BRITTO M
17	18BEC4020	DEEPAKA
18	18BEC4022	DEEPAN D
19	18BEC4023	DEVANA DEVI A
20	18BEC4024	DHANUSHYA S
21	18BEC4025	DHARANIS
22	18BEC4026	DHAYANANTH C
23	18BEC4027	DINESHKUMAR K
24	18BEC4028	DINESH KUMAR D
25	18BEC4029	DINESH P
26	18BEC4030	DURGASHREE N
27	18BEC4031	ELAKKIYA S
28	18BEC4032	GANGA DHARANIK
29	18BEC4033	GAYATHRI P
30	18BEC4034	GAYATHRI S
31	18BEC4035	GAYATHRI T
32	18BEC4036	GEETHA R
33	18BEC4038	GOPINATH S
34	18BEC4039	GOKUL N
35	18BEC4040	GOKUL R
36	18BEC4041	GOWSIGA S
37	18BEC4042	GOWSIKAA S
38	18BEC4043	GOWTHAM K
39	18BEC4044	HAMSAVENI S G
40	18BEC4045	HARI PRANESH C
41	18BEC4046	HANU PRASATH S



Placement 2022

Sr. No.	Registration/Enrollment No. of the student in your institution	Name of the Student
42	18BEC4047	HARIGOKUL R
43	18BEC4048	HARISH L
44	18BEC4049	HEMALATHA B
45	18BEC4052	INDUMATHI P
46	18BEC4053	IANANI S
47	18BEC4054	JEEVA D
48	18BEC4055	JEEVITHA M
49	18BEC4056	JITHENDRA KUMAR M
50	18BEC4057	JOHNSON S
51	18BEC4058	KANISHKA S
52	18BEC4059	KANNAN G
53	18BEC4060	KANNAN V
54	18BEC4061	KANIMOZHI N
55	18BEC4062	KARISHMA G
56	18BEC4063	KARNESHKUMAR M
57	18BEC4064	KARTHEESWARIV
58	18BEC4065	KARTHIKEYAN P
59	18BEC4066	KARTHIKEYAN S
60	18BEC4067	KARTHIKEYAN S
61	18BEC4069	KAVIN KUMAR
62	18BEC4070	KAVIN PRASATH S
63	18BEC4071	KAVIN RAJ S
64	18BEC4072	KAVITHA S
65	18BEC4074	KAVYA G
66	18BEC4075	KEERTHANA M
67	18BEC4077	KISHANTH S
68	18BEC4078	KISHOR A
69	18BEC4079	KOWSIKA S
70	18BEC4080	KRISHNA KUMAR E
71	18BEC4081	KRITHIKA
72	18BEC4082	KURALOVITYA N
73	18BEC4083	LAYANYA R
74	18BEC4084	LOGESWARAN E
75	18BEC4085	MADHAN KUMAR K
76	18BEC4086	MADHU SRI C S
77	18BEC4087	MADHU MITHA K
78	18BEC4088	MANISHARATHI T
79	18BEC4089	MANOJ KUMAR S P
80	18BEC4091	MOHAMED RIYAS M
81	18BEC4092	MOHAMMED ARSATH A
82	18BEC4093	MOHAMED NEHALUDEEN N
83	18BEC4094	MONIKA M
84	18BEC4095	MOTHILAL P
85	18BEC4096	MUGESH M
86	18BEC4097	MUKESH KARAN M

Sr. No.	Registration/Enrollment No. of the student in your institution	Name of the Student
87	18BEC4098	MURALI J
88	18BEC4099	MUTHUKUMAR B
89	18BEC4100	MUTHUREVATHY
90	18BEC4101	MUTHUSELVAN S
91	18BEC4104	NAGARAJ PRABHAVATHI
92	18BEC4105	NARMADHA V
93	18BEC4106	NAVEEN R
94	18BEC4107	NAVEEN V
95	18BEC4108	NAVEENA R
96	18BEC4109	NAVEENKUMAR M
97	18BEC4110	NAVIN M
98	18BEC4111	NIRMAL K J
99	18BEC4112	NISHA P
100	18BEC4113	NISHA S
101	18BEC4114	NISHMITHAA T
102	18BEC4115	NITHISHKUMAR T G
103	18BEC4116	NITHYA R
104	18BEC4117	NIVAS C
105	18BEC4118	NIVEDHITHA R.K
106	18BEC4119	NIVETHA S
107	18BEC4120	NIVITHAA S
108	18BEC4122	PONRAGAVI K
109	18BEC4124	PRAGHADEESH C
110	18BEC4126	PRAVEEN D
111	18BEC4128	PREETHIKA K.V.
112	18BEC4129	PRIYA DHARSHINI S
113	18BEC4130	PRIYADARSAN R
114	18BEC4131	PUNITHA C
115	18BEC4132	RAJESH RAM P
116	18BEC4133	RAKSHITH D
117	18BEC4134	RANI T
118	18BEC4135	RANJITHA B
119	18BEC4136	RAVIVARMA G
120	18BEC4137	RAVINDER A
121	18BEC4138	REVATHI P
122	18BEC4139	RAGHURAM J
123	18BEC4141	SAKTHI R
124	18BEC4142	SANDHIYA K
125	18BEC4143	SANJAI RAM M
126	18BEC4144	SANTHOSH S
127	18BEC4145	SARAN M
128	18BEC4146	SARANYA R
129	18BEC4147	SARATH KUMAR S
130	18BEC4149	SATHISH KUMAR S
131	18BEC4150	SATHISHKUMAR T



Placement 2022

Sr. No.	Registration/Enrollment No. of the student in your institution	Name of the Student
132	18BEC4152	SHANMATHI M
133	18BEC4153	SHANMUGAPRIYA S
134	18BEC4154	SHANMUGAPRIYA S
135	18BEC4155	SHATHISHKUMAR M
136	18BEC4156	SHREE SUBA B
137	18BEC4157	SHRIVARSHAN R V
138	18BEC4159	SIBISARAN D
139	18BEC4160	SOWMIYA T
140	18BEC4161	SREEMATHI S
141	18BEC4162	SREEMATHI S
142	18BEC4163	SRI BHAVISHA A
143	18BEC4164	SRIDHAR S
144	18BEC4165	SRIJITH P
145	18BEC4166	SRINATH S
146	18BEC4167	SUDARINI M.C
147	18BEC4169	SUNDARESH V P
148	18BEC4170	SUPRITHA D
149	18BEC4172	SURIYA M
150	18BEC4173	SURIYA T
151	18BEC4174	SURYA K
152	18BEC4176	SURYA KUMAR T
153	18BEC4178	TAMIZHARASAN K
154	18BEC4179	THARANI P
155	18BEC4180	THARUNISH ARYHA K.K
156	18BEC4181	THARZANYA E D
157	18BEC4182	VANMALAR M V
158	18BEC4183	VARSHINI K
159	18BEC4184	VASANTHAKUMAR S
160	18BEC4185	VIBUHARSHINI M
161	18BEC4186	VIGNESHWARAN V
162	18BEC4187	VIMALRAJ N
163	18BEC4188	VISALI J
164	18BEC4189	VISHAL S
165	18BEC4190	VISHNU V
166	18BEC4191	VIVEK G
167	18BEC4192	VIVEK S
168	18BEC4193	YAATHASH B
169	18BEC4194	YESHVANTH KRISHNAA K
170	18BEC4195	YUVARAJ M
171	18BEC4196	YUVASHRIE G
172	18BEC4303	SUDHAN S

MOU's with Companies



Sl. No.	Company Name	Department/Institute	Available
1	EDUSKILLS	EDUSKILLS	Available
2	TESSOLVE	TESSOLVE	Available
3	SIENNAECAD	SIENNAECAD	Available

Department of Electronics and Communication Engineering has collaborated with many companies where they provide internship programs to enhance students practical knowledge. Companies like “EDUSKILLS, TESSOLVE, SIENNAECAD” has signed MOU’s between our department and college. 250+ students got their Internship certificates with practical knowledge

Foreign Languages



Students from The Department of Electronics and Communication Engineering has undergrow a program in learning foreign languages certification courses. Languages like Japanese, English(BEC) was taught by professionals and which gives them awareness and opportunity in foreign countries

IPR Organized Events



Department of Electronics And Communication Engineering conducted an National level webinar on the topic of Intellectual Property Rights on 24.01.2022, Where Mr.V.palaniswamy was the resource person who is deputy controller of patents and designs. Several students participated the webinar from three different districts.

IIC Events



Department Of Electronics And Communication Engineering conducted an Event "Process Design and development of RF Energy Harvesting" on 27.05.2022, where we had Dr.R.Raja Sudharsan and Dr.P.Jaya Kumar Assistant Professor, ECE, MKCE. He shared all his experiences of hardware materials for RF energy harvesting. Also explained the process flow using different components and materials for building the RF Energy harvesting for agricultural applications and also explained how to Commercial the prototype model from idea to make the product reach the society. Finally, he explained about the Self motivation which was very essential to build up prototype from different technical ideas

IIC Events

Department of Electronics And Communication Engineering conducted an Event "Prototype Validation Converting innovation into a Start-up" on 29.07.2022, where we had Dr.R.Raja Sudharsan Assistant Professor, ECE, MKCE as Resource Person. He shared all his experiences of hardware materials for RF energy harvesting. Also explained the process flow using different components and materials for building the RF Energy harvesting for agricultural applications and also explained how to Commercial the prototype model from idea to make the product reach the society. Finally, he explained about the Self-motivation which was very essential to build up prototype from different technical ideas.



EMINENCE & IEEE COMSOC EVENTS

Sl. No	Date of the Event	Name of the Event
1	18.09.2021	A Webinar on awareness and preparedness for freshers in IT industry
2	14.08.2021	National Webinar on how to stand-out in a very competitive job market
3	13.05.2021	Recent Trends in Digital Signal Processing
4	12.05.2021	Recent Trends in Advanced Digital Communication
5	16.04.2021	Opportunities for Freshers in the Data science Industry
6	05.03.2021	Industry Readiness – Inter personal skills for Engineers
7	10.11.2020	Webinar on Awareness Program for Internship Training
8	30.09.2020	Webinar on Awareness on GATE Examination
9	26.09.2020	Webinar on Web development in Python

18.09.2021 - A Webinar on awareness and preparedness for fresher in IT industry



An Alumni Interaction Webinar was conducted on Awareness and Preparedness for Fresher in IT Industry by the Department of Electronics and Communication Engineering in which our passed out Alumni Mr.M.Mohankunar participated who is an IT Analyst at TCS, Toronto, Canada. This event was conducted on 18.09.2021

14.08.2021 - National Webinar on how to stand-out in a very competitive job market



An Alumni Interaction Program was conducted on How to Stand Out in a Very Competitive Job Market by the Department of Electronics and Communication Engineering in which our passed out Alumni Mr.VGowrishankar participated who is a Sub Inspector of Police (Technical) at Chennai. This event was conducted on 14.08.2021

13.05.2021 - Recent Trends in Digital Signal Processing



Department Of Electronics And Communication Engineering conducted an event "Recent Trends in Digital Signal Processing Using SCILAB" on 13.05.2021, where we had Dr.R.Senthil Kumar as the resource person from IRTT, Erode. In which several students have participated at this webinar from various districts.

12.05.2021 - Recent Trends in Advanced Digital Communication



Department Of Electronics And Communication Engineering conducted an event “Recent Trends in Advanced Digital Communication” on 12.05.2021, where we had Dr.R.Senthil Kumar as the resource person from IRTT. In which several students have participated at this webinar from various districts.

16.04.2021 - Opportunities for Freshers in the Data science Industry



Department Of Electronics And Communication Engineering conducted an event “Opportunities for Freshers in the Data science Industry” on 16.04.2021, where we had Mr.Ahamed Khalid as the resource person who is Vice President, Imarticus.

FACULTY JOURNAL PUBLICATION



Faculties from the Department Of Electronics And Communication Engineering have published their papers as journals on various topics in popular platforms like "IEEE, Springer, MDPI, Hindawi".

IETE PROFESSIONAL SOCIETY

Sl. No	Academic Year	Students Membership Count
1	2015-2016	121
2	2016-2017	292
3.	2017-2018	428
4.	2018-2019	385
5.	2019-2020	409
6	2020-2021	451
7	2021-2022	490

Department Of Electronics And Communication Engineering students are being member of the "Institute of Electronics and Telecommunication Engineering". As of academic year 2021-2022 - 490 students are active members in this committee

IETE EVENTS



EVENTS

Sl. No	Date of the Event	Name of the Event
1	25.09.2021	SMARTINIS 1.0
2	09.10.2021	SMARTINIS 2.0
3	20.11.2021	SMARTINIS 3.0
4	24.01.2022	INTELLECTUAL PROPERTY RIGHTS
5	12.03.2022	APPLICATIONS OF SIGNAL PROCESSING IN COMMUNICATION
6	04.04.22 & 08.04.22	ANSYS ACADAMIC TEACHING HFSS

Department of Electronics And Communication Engineering and Institute of Electronics and Telecommunication Engineering has organizes list of events and activities on the academic year of 2021-2022.

SMARTINIS SERIES



Department Of Electronics And Communication Engineering and Institute of Electronics and Telecommunication Engineering has organizes "SMARTINIS - an quiz series" 1.0, 2.0, 3.0. Many students have participated in this contest and many won cash prize of Rs. 500, 250, 100 and other all participants received participation certificates.



STUDENTS ART WORKS

சிற்புது படைப்பி ?

[illegible]

T.Sobiya
ECE (2021-2025)



G.PAVITHRA
ECE (2021-2025)



V.PRIYADHARSHINI
ECE (2021-2025)



S.SHALINI
ECE (2021-2025)



P.SUBASH
ECE (2021-2025)



M.YAKSHINI
ECE (2021-2025)



S.VARSHAYINI
ECE (2020-2024)



P.PRIYANKADEVI
ECE (2019-2023)



SNEHA A
ECE (2019-2023)



சிறுபிள்ளை போல் விளையாட்டில் மெல்ல மெல்ல
மறையும் சூரியனே உனது ஒவ்வொரு நொடியின் மறைவுக்கு
பின்னால் காத்திருக்கிறது மறுநாளுக்கான அற்புத விடியல்.....

S.SHRUTI
ECE (2020-2024)

தாயே அருமை தாயே.....

கருமை நிற வீட்டுக்குள்ளே தினம் பாட்டு கேட்டது
தாளம் போடும் காலை எண்ணி காலம் ஓடி கிடக்குது.

இருளியில் பேசும் நிலவின் ஒளிக்கு கண்கள் இமைக்கும்.
மய்யம் கொண்ட மனதறிவின் மூச்சு காற்று வீசுது
மின்னி வரும் மின்லை போல் அவள் கண்கள் மின்னுது.
அவள் குரலே என் காதில் அங்கும் இங்கும் ஒலிக்குது.
கடக்க இருக்கும் காலங்களோ கனவுகளை கொடுக்குது.
நீ கடந்து வந்த காலங்களோ நினைவுகளை சுமக்குது.
முதுமையினால் பலமிழந்து முயறிச்சிக்க முடியாமல்
மூன்று கால்கள்கொண்டிருந்தும் முன் நடக்க முடியவில்லை.
உன் தாகம் தீர்த்துக் தண்ணீர்தர யவருமில்லை.
பாசம்முள்ள எமனைத்தவிர வரவேற்க யாருமில்லை.
என்னிடத்தில் நீ மறைத்த சோகம் வந்து போகுது.
உறங்காத இதயமோ துடித்துக் கொண்டே மறைந்தது.

S.GANISKA
ECE (2021-2025)

தேர்தல் மற்றும் முயற்சிகள்

- 1.ஒற்றுமை வேண்டுமெனில் ஒற்று-மை வை!
- 2.கருமை நம் கடமை மற்றும் உரிமை
- 3.மக்களாட்சி வெறும் காட்சி அல்ல மக்களுக்கான ஆட்சி
- 4.ஆட்சிக்காக மக்களை சாட்சி ஆக்காதே!
- 5.வாக்களித்ததற்கு ஏதேனும் செய் வாழ்க்கை அழிக்க எவையும் செய்யாதே
- 6.ஜாதி எனும் வாக்கு விவாத வாக்கு
- 7.ஜனநாயகத்தின் வலி நீங்க பணநாயகத்தை ஒழிப்பதே ஒரே வழி!
8. தேசத்தின் கதவு உன் ஓட்டுப்பதிவு
- 9.உன் குரலை உயர்த்த உன் விரலை தாழ்த்த வேண்டும்..
- 10.உனது ஓட்டுப்பதிவு !எதிர்கால விற்பனையாக மாற கூடாது

SUGUMAR S
ECE (2019-2023)



B SUBHIKSHA
ECE (2019-2023)

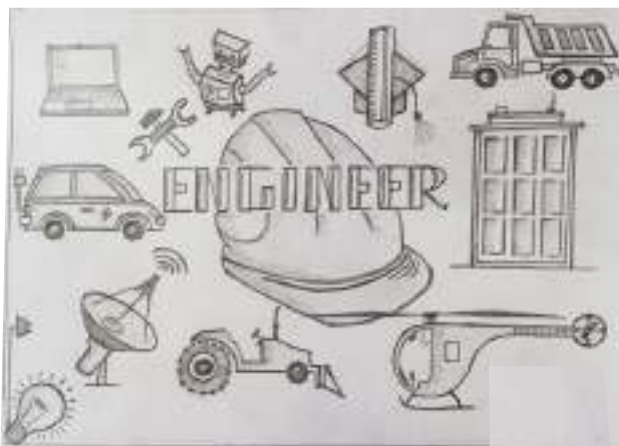
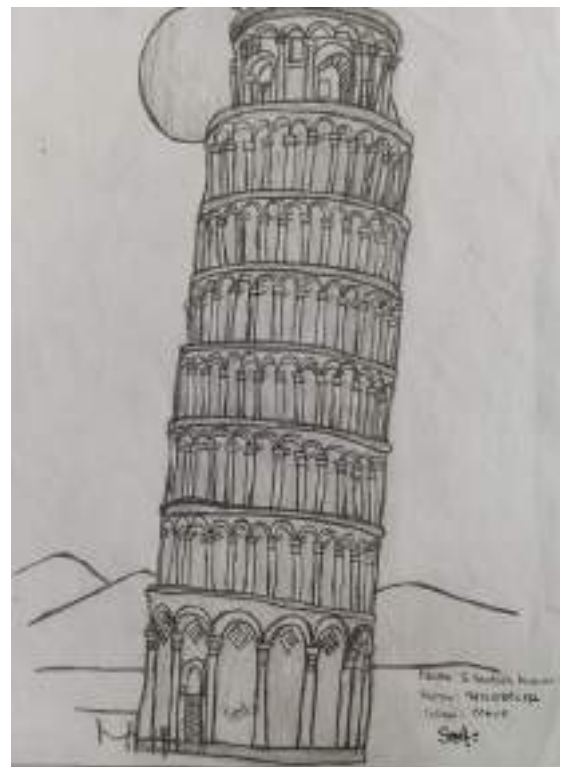


S KEERTHANA
ECE (2021-2025)



P KIRUBASHINI
ECE (2021-2025)

S.SANTHOSH KUMAR
ECE (2021-2025)



V KAVYAPRIYA
ECE (2020-2024)

ARTICLE

IMAGE STEGANOGRAPHY USING PYTHON

- Arulmozhi B
ECE(2020-2024)

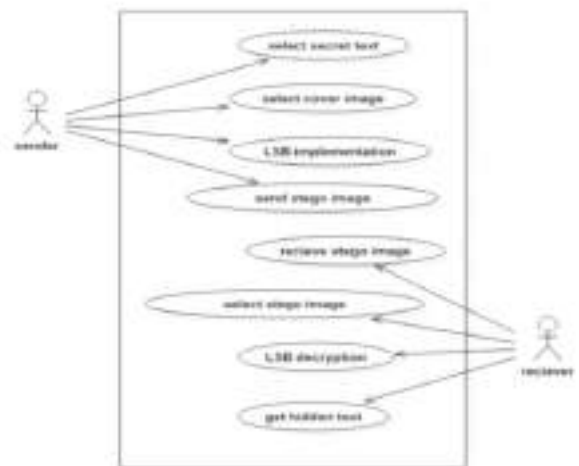
DESCRIPTION:

Image Steganography is the process of hiding text / audio / video in a image file in such a way that someone cannot know about the presence of audio or other hiding contents in the image. This will increase the security against different malicious attacks. The purpose of steganography is to maintain secret communication between two parties. It works with PNG Stego image due to its losses compression. In this image steganography software , we can hide the data using LSB embed techniques. This approach of info-hiding technique has recently become important in a number of application areas. The scope of this project is to limit the access and provide better security during message transmission. In this project the proposed approach finds suitable algorithm for embedding the data in an image.

FUNCTIONAL REQUIREMENTS:

Functional requirements are the requirements that that define specific behavior or function of the system .

- **Login:** Login function will authenticate the sender if username and password are correct Otherwise it will exit the system.
- **Secret Text Message File:** In this file you will have to write secret message to hide or you can select any text file of secret message.
- **Cover Image:** Cover Image is the image is to be selected in which secret text message can be hidden.
- **Stego Encryption** LSB implementation is performed on cover image to hide secret text message by replacing bits of cover image by the bits of message.
- **Sender** In this Sender send this stego image file to intended recipient to which he does want to communicate .
- **Receiver** In this receiver receives stegoimage and opens in decryption option for getting hidden text message inside that image.





M.KUMARASAMY
COLLEGE OF ENGINEERING

NAAC Accredited Autonomous Institution

Approved by AICTE & Affiliated to Anna University,
ISO 9001:2015 & ISO 14001:2015 Certified Institution
Thalavapalayam, Karur-639 113, Tamilnadu.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ENGINEERS COMMUNICATION ELECTRONICS AND OPPORTUNITIES FOR

ECE SCOPE

ECE students can have careers in industries like:

- Automotive
- Power Electronics
- Internet technologies
- Telecommunication & IT industries
- Health care equipment manufacturing
- Mobile communication (2G, 3G, and 4G)
- Consumer electronics manufacturing organization
- Other industries like steel, petroleum & chemical industry etc

ECE opportunities in Government & Private companies:

- Design
- Manufacture
- Installation Operation
- Maintenance Of Electronics Equipment & Systems
- New opportunities and avenues are also opening up for ECE's due to integration of electronics into various new industrial vertical.

Major Technologies in which an ECE Engineer can Work:

- Networking
- Remote Sensing
- Nano Technology
- Control systems & Robotics
- Energy Storage Technology
- Computer & Digital Systems
- Sustainable Energy & Power systems
- Computer vision & Image processing
- Communication & Signal Processing
- Analog and Radio Frequency Circuits



The latest technologies include:

- Self-driving Cars
- Autonomous Drone Logistics
- Robotics
- Automation in Industries
- Smart Energy Systems etc

Admission Contact

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