NEW PRINCE SHRI BHAVANI
COLLEGE OF ENGINEERING AND
TECHNOLOGY

Department of

ELECTRICAL AND ELECTRONICS ENGINEERING

proudly presents

National Level Technical Symposium

FAISCA 2K23

PREFACE

"Introducing the Faisca 2K23 Magazine, a special commemorative edition that encapsulates the spirit and achievements of our recent symposium. This publication serves as both a retrospective and a celebration, highlighting the dynamic exchanges, innovative insights, and meaningful connections that defined our event."

Published By,

Department of Electrical And Electronics Engineering
New Prince Shri Bhavani College of Engineering and Technology
Vengaivasal Main Road, Santhosapuram
Chennai-600073

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NOTE FROM EDITORIAL DESK

From the editor's desk:
It is with great pleasure that we offer to you FAISCA'23. *A brighter route lies ahead thanks to the vision that was nourished and developed in previous years. The material on the edition board for this year is more extensive. Each of you had a life-changing experience, and the magazine did a great job of capturing its spirit. It is a superb collection of amusing and entertaining content as well as articles about various activities. There is something here for everyone, we've made sure of that. To ensure that you leave with lifelong memories, our main goal was to capture every special occasion you experienced over the past year.*

We hope FAISCA'23 *truly captures your heart.*

Editorial Board
FAISCA' 23

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Thiru. K. LOGANATHAN, M.COM., M.ED.
CHAIRMAN

As the chairman of NPSBCET, it gives me great pleasure to share my opinions. The seminar, symposium, conference, sports day, etc. are organised by our college. It is a truth that education is a dynamic process in which cutting-edge ideas are continuously added to build the education in a progressive manner.

Realistically speaking, the country is only as powerful as its educational system. While developing and underdeveloped nations have relatively weak and superficial educational systems, industrialised nations have robust, deeply established educational systems. The nation is great, strong, and developed because of education and its system.

Mr.L. NAVEEN KUMAR, B.E., M.B.A.
VICE CHAIRMAN

The news of the FAISCA'23 magazine issue makes me very happy. Without a doubt, this creative activity will inspire a wide range of artistic and scientific expressions with the unique personal stamp of our students and staff. The team's accomplishment in compiling the numerous ideas and aspirations of our students and professors into the poignant and delightful visual festival FAISCA'23 is something I do admire and applaud.

PROF. A. SWAMINATHAN, M.E., F.I.E.
DIRECTOR

A magazine is the ideal combination of two crucial components of a successful education. encouraging innovation and nurturing creativity. The most brilliant way to distil the essence of the academic community's inspired imagination, FAISCA'23 magazine is prepared for release. It harnesses their creative energies.

I would want to take this opportunity to congratulate the students and faculty on producing the magazine FAISCA'23, which is an accomplishment in and of itself given the time. May everyone of our students use the wings of education to soar high in uncharted skies and glorify the world and their profession.

Dr. T.SARAVANAN, M.E., PH.D.
PRINCIPAL

We at NPSBCET are motivated by the conviction that every student deserves access to a high-quality education, thus one of the most essential commitments are to provide them with a variety of opportunities in engineering education. For the students to reflect on their efforts and examine their accomplishments in research and development, FAISCA'23 offers a unique junction of tremendous difficulty and great potential. Because of how quickly technology is developing, our classrooms might not be able to keep up. The pages of FAISCA'23 chronicle the story of all who have contributed to what is right about the education they received in NPSBCET, despite the fact that there may be many issues with the way education is being delivered.

I extend my sincere congratulations to the group of students and staff from the department of Electrical and Electronics Engineering for their tireless work, which have resulted in this publication. I wish everyone well and hope that the next generation of students will continue the legacy that the current students have started.

Dr.R.VENKATSUBRAMANIAN, M.E., Ph.D.
HEAD OF DEPARTMENT

It gives me immense pleasure that the Department of Electrical and Electronics Engineering is conducting a National Level Technical Symposium FAISCA'23 and is bringing out this magazine. The Department has been steadily growing into an impressive dimension, which strives to encourage excellence in academic, co-curricular activities.As our need for technology grows, so does our need for Electrical Engineers.With the job market tightening and the green pastures of us not are appearing as lucrative as earlier, the low hanging fruit within your reach which can empower you in Education.

You, my young students are probably stepping into the global world that is more challenging. Higher education has the responsibility of offering not just knowledge but value based knowledge so that our integrity will help us to hold our head high while we accomplish our task I believe that this symposium will provide great learning and wonderful experience for all of you. My best wishes to all my lovable students and faculties for their dedicated team work.

VISION OF THE INSTITUTE

To be a globally recognized academic institution and there by contribute to technological and socio-economic
development of the society

MISSION OF THE INSTITUTE

1.To develop the needed resources and infrastructure, and to establish a conducive ambience for the teaching
learning process.

2.To engage committed members of faculty who will infuse subject knowledge with latest teaching pedagogies

3.To ignite the desire for higher learning, research and entrepreneurship and equip them to face the global challenges

4.To engage the alumni professionals as productive partners with the current students to help to enrich and enhance their student life

VISION OF THE DEPARTMENT

To produce globally competent Electrical and Electronics Engineers who can cater to the contemporary needs of the Industry and Society.

MISSION OF THE DEPARTMENT

M1: To provide a good infrastructure and serene environment to cater the curriculum requirements of Electrical and Electronics Engineering

M2: To motivate the students and faculty towards research activities in association with industries

M3: To provide a conducive environment for students to enhance their co curricular, soft skills and ethical values for their career development.

M4: To stimulate continuing education for creating quality engineers towads sustainable improvement in the society.

PROGRAM EDUCATIONAL OBJECTIVES

PEO I : Procure optimum solution for Electrical Engineering problems in order to cater a successful professional career.

PEO II: Demonstrate creativity in the engineering practices including entrepreneurial and collaborative ventures with strategic thinking, planning and execution for lifelong learning.

PEO III: Exhibit to communicate effectively, recognize and incorporate societal needs and constraints in their professional endeavors and practice the profession with high regard to legal and ethical responsibilities.

PROGRAM SPECIFIC OUTCOME

PSO I: Shall have Potential to analyze, design, synthesize and provide technical solutions in the field of Power generation, distribution, renewable energy systems and Embedded Systems.

PSO II: Shall exhibit leadership skills, pursue entrepreneurship and contribute in the field of Electrical and Electronics Engineering.

CONTENTS

EVENTS ORGANIZED

CAREER GUIDANCE PROGRAM

A Seminar on “Trends in Electrical Field & IT field” was organized by the department of Electrical and Electronics Engineering on 12.04.23. Ms.V.Aathithya, Centre Manager, CADD Center, Chennai exposed the career opportunities and skills to be developed to fetch a better opportunity in electrical and IT domain

The career guidance program was organized by the department both following points were addressed during the meeting by the topic of embedded systems and programming

GUEST LECTURE

Expert/Speaker: Mr.R.Vijayakumar, Founder&CEO of The Company Fheenix Tech Solutions on lecture of simulation of electronics circuits helded on new prince shri bhavani collage of engineering and technology department electricals and electronics on 31.03.2022

A Guest Lecture on “Intelligent Management of Electrical System in Industries” was conducted by Department of Electrical and Electronics Engineering on 11.04.23. Ms.R.K.Sandhya, Technical Advisor, Roku Technical Support, Concentrix, Chennai.

PROJECT EXPO

Institutions Innovation Council & Department of Electrical and Electronics Engineering, New Prince Shri Bhavani College of Engineering & Technology Jointly Organizes “Intra College Innovation Contest ”on 20.12.2022. Around 25 Innovation ideas were received from the students of Computer Science Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering and Information Technology of our Institution.

TECHNICAL SEMINAR AND WORKSHOP

A Seminar on “Power Flow Analysis” was organized on 7th February, 2023. Mr. P. Aswin Surendar, Properitor, OMEGA ABRASIVES. Chennai , our dignified Alumni of Electrical And Electronics Engineering presented the latest trends in power flow analysis.

A Workshop on the topic “Robotics and Automation” was conducted by the Department of Electrical and Electronics Engineering on 28.10.2022. Students have been expertise on simulation using UI Automation path during the workshop.

Research Progress

Dr.R.Venkatasubramanian Professor & HOD, Published a paper titled “Monitoring of Photovoltaic Fed Induction Motor Control using IoT” in IEEE , 2nd International Conference Procedings, 2023.

Dr.R.Venkatasubramanian Professor & HOD, Published a paper titled “AC to DC Converter Execution using EMI Filtration System in IEEE International Conference on Integrated Circuits and Communication Systems (ICICACS), February 2023.

Dr.S.Parthasarathy, Associate Professor, Presented a paper on “Green Information Technology for Environmentally Sustainable Computing” on International Virtual Conference On Advances In Data Sciences And Theory of Computing conducted by Bharath Institute of Higher Education and Research, Chennai during 30.3.2022, & 04.2022

M.Devi, Assistant Professor, Presented a paper on “Reliable Data Delivery for Highly Dynamic MANET” on International Virtual Conference On Advances In Data Sciences And Theory of Computing conducted by Bharath Institute of Higher Education and Research, Chennai during 30.3.2022, & 04.2022

Ms.S.Ananthi, Assistant Professor, Presented a paper on “Green Information Technology for Environmentally Sustainable Computing” on International Virtual Conference On Advances In Data Sciences And Theory of Computing conducted by Bharath Institute of Higher Education and Research, Chennai during 30.3.2022, & 04.2022

K.Sarathy, Assistant Professor, Presented a paper on “Cloud Computing: A New Perspective of Efficient Approaches, Techniques and Challenges for Data Centers ” on International Virtual Conference On Advances In Data Sciences And Theory of Computing conducted by Bharath Institute of Higher Education and Research, Chennai during 30.3.2022, & 04.2022

Ravin Kumar.R, Santhosh, Tamil Selvan.M, Final year students submitted a paper titled “Single I/p Multiple O/p Inter Leaved DC-DC Sepic Cuk Converter” for the International Conference On Recent Advance In Science, Engineering And Technology (ICRASET) Organized By Bharath Institution Of Higher Education And Research

K.Asokan and D.Milson Bharath of IV EEE submitted a paper titled “Improved power quality Dual Converter fed Series resonant Inverter with two induction stoves.” on the International Conference On Recent Advance In Science, Engineering And Technology (ICRASET) Organized By Bharath Institution Of Higher Education And Research

EVENTS ATTENDED

Sahil Dhanaji Zimal III, EEE was participte and winning of third prize in the event of codeathon 2022--23 organized by Mohammed Sathak A.J Collage Of Engineering

Sathish.S ,S.Jayakumar, A.vijakumar III EEE Are Attended the symposium of ASTHRA 2023 In Meenakshi Sundhararajan Engineering Collage Participated Event of technical quiz and K.Sivaramakrishnan III EEE was participated the symposium of ELYTRICO 2K22 in AMET University

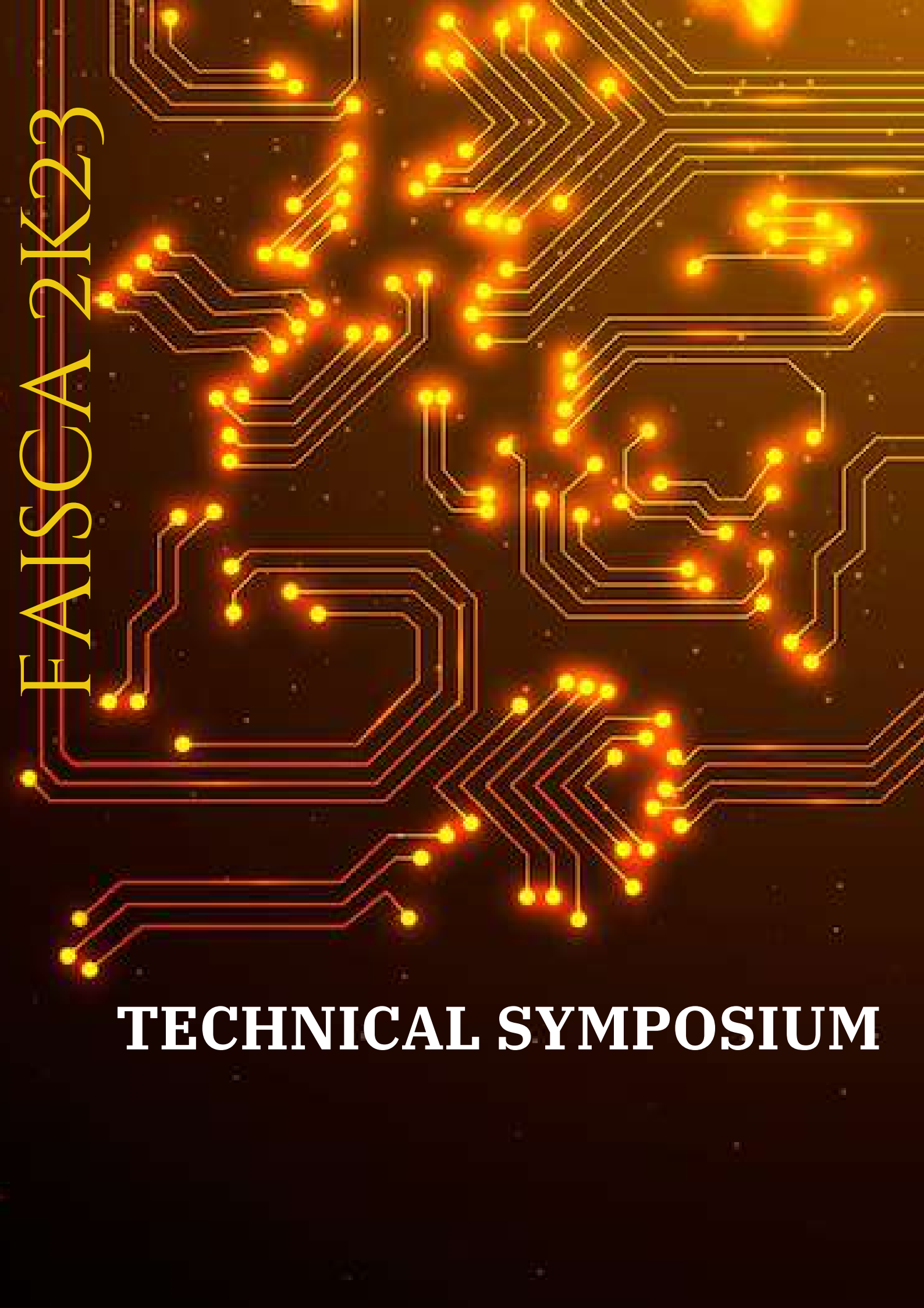
WORKSHOP'S ATTENDED

Ashok Kumar.J, Sathish.S, Dinesh.V , Jayakumar.S & Gokulakrishnan.R of III year EEE students attended one day workshop on "Embedded Systems for Industrial Application at Madras Institute of Technology, Anna University , Chennai on 20.03.2023.

Sivaramakrishnan.K Sahil Dhanji Zimal, Robinson.R, Vignesh.S, Vijayakumar.A, Ambedkar.P & Vikraman.K attended one day workshop on "Design of PV" on 04.04.23 at PERI Institute of Technology , Chennai

INDUSTRIAL VISIT

In order to gain the practical knowledge about the Industrial Interaction to Identity real life problems need solutions, industrial visit to “Shree Technologies” was organized by New Prince Shri Bhavani college of Engineering and Technology for the students of Electrical & Electronics Engineering on 19.10.2022.


FAISCA 2K23
TECHNICAL SYMPOSIUM

NATIONAL LEVEL TECHNICAL SYMPOSIUM – FAISCA'2K23

ORGANIZING COMMITTEE

CONVENER - DR. R. VENKATASUBRAMANIAN, PROFESSOR&HEAD/EEE

CO-CONVENER - DR.S.PARTHASARATHY, ASSOCIATE PROFESSOR/EEE

CO-ORDINATOR: DR.R.SASIKALA, ASSOCIATE PROFESSOR/EEE

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	:K.VIKRAMAN, III EEE
JOINT TREASURERS	:D.MILSONBHARATH, IV EEE,
	:V.PRIYANKA, II EEE

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STAFF INCHARGE

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STUDENT INCHARGES

- D.MILSONBHARATH, IV EEE
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PAPER PRESENTATION

STAFF INCHARGE

- MRS.R.REVATHI, ASSOCIATE PROFESSOR/EEE

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- V.DINESH III EEE
- SAHIL DHANAJI ZIMAL III EEE
- R.ROBINSON III EEE
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- D.SURESH II EEE

PROJECT EXPO

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- J.ASHOK KUMAR III EEE
- V.PRIYANKA II EEE
- R.THANGA LAKSHMI II EEE

NON-TECHNICAL EVENTS

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- A.VIJAYAKUMAR III EEE
- S.SATHISH III EEE
- A.BALAJI II EEE

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- M.LAKSHMI NARAYANAN II EEE
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- S.ARUN II EEE
- V.PRIYANKA II EEE
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STAFF INCHARGE

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- A.RAVINKUMAR IV EEE
- R.GOKULAKRISHNAN III EEE
- R.ROBINSON III EEE
- S.GAJALAKSHMI II EEE
- K.SRINATH II EEE
- R.THANGALAKSHMI II EEE

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STUDENT INCHARGES

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- A.VIJAYAKUMAR III EEE
- K.SIVARAMAKRISHNAN III EEE
- V.PRIYANKA II EEE
- S.RAMYA II EEE

BANNER DESIGN

- SAHIL DHANAJI ZIMAL III EEE
- A.VIJAYAKUMAR III EEE
- K.VIKRAMAN III EEE
- R.MANISHKUMAR II EEE

DECORATION

- ALL FEMALE FACULTIES
- ALL STUDENTS EXCEPT FINAL YEARS

DISCIPLINE

STAFF INCHARGE

- MRS.R.REVATHI, AP/EEE

STUDENT INCHARGES

- M.TAMILSELVAN IV EEE
- K.SIVARAMAKRISHNAN III EEE
- K.VIKRAMAN III EEE
- D.MANISHKUMAR II EEE
- R.THANGA LAKSHMI II EEE

PAPER PRESENTATION

ADVANCED DRIVER ASSISTANCE FOR DISTANCE CONTROL AND COLLISION AVOIDANCE SYSTEM

AUTHOR :- UMAMAHESWARI.R,NISHANTHI.K

COLLEGE :- AGNI COLLEGE OF TECHNOLOGY

ABSTRACT:-

fGenerally while travelling they should be a gap between each vehicle. The basic distance between each vehicle should be 10M but nowadays they are not following this basic rules this is the major cause for the accidents in the road. The vehicle may crash Each Other only and lead to severe accidents. These accidents are increasing day by day and this accident may lead to severe injury and may also lead to death to human being and also damage the vehicle. The third party vehicles also get damaged. We are driving the vehicle 8 to 12 km per hour during traffic. So we are fixing the maximum speed as 20 km per hour .so if the speed goes below 20 km per hour during traffic it will not sense the object in front of vehicle.If the vehicle speed increase about 20 km per hour then it senses the object front of the vehicle continuously at a distance of 2M. With this we reduce the speed of the vehicle.

High Efficiency Two port Charging Station.

AUTHOR :- ,LAVANYA.S,GOPALAKRISHANAN R ,GOVIND KUMAR VERMA , KARTHIKJI G

COLLEGE :- Sri Sai Ram Engineering college

ABSTRACT:-

Nowadays, the energy will be produced using both conventional and non-conventional energy sources. It is mainly because of the depleting conventional energy resources. Among all renewable energy sources solar energy proves to be the better due its advantages as there are no trenching cost, low maintenance, easy installation, more secure and eco-friendly. Moreover, solar energy is the only abundant source available when compared with other renewable sources. The energy produced from the renewable energy source should be either stored or transferred to the electrical grid for the better usage of the power. Since power produced from the renewable energy resource is DC power it is obvious that it is necessary to use DC-DC converter for high voltage gain.

Smart cradle monitoring system using IoT

AUTHOR :- JAGADEESWARAN

COLLEGE :- AGNI COLLEGE OF TECHNOLOGY

ABSTRACT:-
Smart Cradle Monitoring System with lot is a cutting-edge technology that enables parents to monitor their baby's sleep, feeding, and diaper changes from anywhere. It utilizes loT sensors to track the baby's activity and sends alerts to parents' devices in real-time. With this system, parents can rest assured that their baby is safe and healthy. In this presentation, we'll explore the features, benefits, and advantages of this innovative system.

WIRELESS POWER TRANSFER SYSTEM

AUTHOR :- INDHUMATHI,SUJITHA

COLLEGE :- AGNI COLLEGE OF TECHNOLOGY

ABSTRACT:
The transmission of electrical energy from source to load for a distance without any conducting wire or cables is called Wireless Power Transmission. The concept of wireless power transfer was realized by Nikola Tesla. Wireless power transfer can make a remarkable change in the field of the electrical engineering which eliminates the use conventional copper cables and current carrying wires.Day by day new technologies are making our life simpler. Wireless charging through resonance could beone of the next technologies that bring the future nearer. In this project it has been shown that it is possibleto charge low power devices wirelessly via inductive coupling. It minimizes the complexity that arises for the use of conventional wire system. In addition, the project also opens up new possibilities of wirelesssystems in our other daily life uses.

FLOW SENSOR

AUTHOR :- RAMESH BABU

COLLEGE :- S.A. ENGINEERING COLLEGE

ABSTRACT:-
Smart Cradle Monitoring System with lot is a cutting-edge technology that enables parents to monitor their baby's sleep, feeding, and diaper changes from anywhere. It utilizes loT sensors to track the baby's activity and sends alerts to parents' devices in real-time. With this system, parents can rest assured that their baby is safe and healthy. In this presentation, we'll explore the features, benefits, and advantages of this innovative system.

E boat using solar with dual axial solar tracker

NAME : S. BALAJI, K. PONNARASI
COLLEGE NAME: PERI INSTITUTE OF TECHNOLOGY

ABSTRACT:
In this project, we are going to build Electrical boat using solar panel and we are going to change the solar panel angle based upon Sunlight direction with the help of solar tracker, we are going to combine both solar tracker and solar panel and we are also going to change the position of the solar panel using single axis solar tracker. It has been shown that these sun tracking systems can be broadly classified as single axis and dual axis, depending on their mode of rotation. Further it can be classified as active and passive tracker depending on the actuator.The sub division and their basic principles of each method have been reviewed. Overall, the results presented in this review confirm that the azimuth and altitude dual axis tracking system is more efficient compared to other tracking systems . However in cost and flexibility point of view single axis tracking system is more feasible than dual axis.

Design and Implementation of Smart Grids for Efficient Energy Management.

AUTHOR :- MAGESH.D, GOKUL.F

COLLEGE :- JEEPIYAAR COLLEGE OF ENGINEERING AND TECHNOLOGY

ABSTRACT:-
Smart grids are electrical grids that use advanced technologies, such as sensors, communications, and automation, to improve the efficiency, reliability, and sustainability of energy systems. The design and implementation of smart grids involves the integration of renewable energy sources, energy storage systems, and advanced control strategies to optimize

Artificial Intelligence (AI) and Machine Learning (ML) for Energy Forecasting and Load Management..

AUTHOR :- KEVIN.S,VIKASH.S

COLLEGE :- AGNI COLLEGE OF TECHNOLOGY

ABSTRACT:-

Artificial intelligence (AI) and machine learning (ML) are computational techniques that enable computers to learn from data and make predictions or decisions based on that data. In the context of energy forecasting and load management, AI and ML can be used to analyze historical energy usage data and make predictions about future energy demand. This information can be used to optimize the scheduling of energy production and distribution, to reduce energy waste and costs, and to improve the reliability and efficiency of energy systems. AI and ML techniques are also being explored for applications in energy storage, renewable energy integration, and smart grid management.

Signal Processing Techniques for EEG-Based Brain-Computer Interfaces

AUTHOR :- DHIVYA.R GAYATRI.K

COLLEGE :- CRESCENT INSTITUTE OF SCIENCE & TECHNOLOGY

ABSTRACT:-
EEG-based brain-computer interfaces (BCIs) are systems that allow individuals to control electronic devices using their brain waves. These interfaces rely on sophisticated signal processing techniques to extract useful information from the EEG signals, such as the detection of specific mental states or the prediction of intended movements. Signal processing algorithms can be designed to improve the accuracy and reliability of EEG-based BCIs.

Renewable Energy Integration: Challenges and Solutions for Electrical Grids

AUTHOR :- ARJUN.S,AKASH.H

COLLEGE :- ANAND INSTITUTE OF HIGHER TECHNOLOGY

ABSTRACT:-
Renewable energy sources, such as solar and wind power, are becoming increasingly important in the global transition to sustainable energy systems. However, integrating these sources into electrical grids presents a number of challenges, such as intermittent energy production and voltage fluctuations. Solutions to these challenges include the use of energy storage systems and advanced control strategies to balance energy supply and demand.

Power Electronics: Design and Optimization of High-Efficiency DC-DC Converters

AUTHOR :- RAKA.A, BALA.D
COLLEGE :- SRM UNIVERSITY

ABSTRACT:-
Power electronics is the study of electronic circuits designed to control the flow of electrical power. DC-DC converters are a type of power electronic circuit that convert DC voltage from one level to another. The efficiency of DC-DC converters is an important consideration in many applications, such as renewable energy systems and electric vehicles. Design and optimization of these circuits involves balancing trade-offs between efficiency, cost, and size.

Solar Water Pumping System – Design and Simulation (Electrical Project)

AUTHOR :- RAKESH.S,ASHWIN.H

COLLEGE :- ANANTH COLLEGE OF ENGINEERING

ABSTRACT:-
This project deals with the design and simulation of a simple but efficient photovoltaic water pumping system. It provides theoretical studies of photovoltaics and modeling techniques using equivalent electric circuits. The system employs the maximum power point tracker (MPPT). The investigation includes discussion of various MPPT algorithms and control methods. PSpice simulations verify the DC-DC converter design. MATLAB simulations perform comparative tests of two popular MPPT algorithms using actual irradiance data. The thesis decides on the output sensing direct control method because it requires fewer sensors. This allows a lower cost system. Each subsystem is modeled in order to simulate the whole system in MATLAB. It employs SIMULINK to model a DC pump motor, and the model is transferred into MATLAB. Then, MATLAB simulations verify the system and functionality of MPPT.

FAISCA 2K23

STUDENT'S CORNER

ALUMINI CORNER

I am thrilled to be a part of "NEW PRINCE SHRI BHAVANI COLLEGE OF ENGINEERING AND TECHNOLOGY", where I've experienced a supportive and stimulating environment. The faculty in our department are exceptional, offering guidance and hands-on training that deepens our understanding. The opportunity to pursue extra courses alongside our main studies has been invaluable, broadening our perspectives and career prospects in both IT and core fields. The college's outstanding infrastructure and facilities provide an ideal setting for learning and growth. Moreover, the vibrant sports and cultural activities on campus foster a sense of community and teamwork, enriching our overall experience. I'm grateful for the chance to be part of this dynamic community, where I can explore my passions, develop my skills, and build lasting connections. New Prince Shri Bhavani College of Engineering and Technology truly offers a well-rounded education that prepares us for success in all aspects of life.

Name: SOWMIYA T
Destination: JUNIOR IMPLEMENTATION SPECIALIST
Office Name : WINSAR INFOSOFT PVT LTD

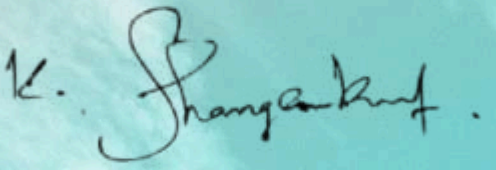
Company Name : inswit software private limited
Address : IIT Madras Research Park, 3rd Floor,
Phase II, Block D, MGR Film City Road, Tharamani,
Chennai, Tamil Nadu 600113, India

As I look back on my college journey, I'm filled with gratitude and nostalgia for the incredible experiences we shared. College life is a treasure trove of unforgettable moments, and I still smile when I think about cramming into the hostel until 3 AM for that brutal final exam. We turned our panic into laughter with endless cups of coffee and impromptu study breaks. The spontaneous talent show on our dorm floor revealed our quietest classmate as an incredible beatboxer, transforming a simple night into a bonding experience where strangers became friends. I'll always remember the annual campus festival, where our ridiculous costumes led us to an unexpected victory in the scavenger hunt. Late-night study sessions in the library brought profound conversations and deep connections, while harmless pranks and shenanigans—like setting early morning alarms or decorating a dorm room for a surprise—added a playful touch to our daily routines. These moments have left a lasting mark on my college journey, and I cherish every laugh, victory, and connection we shared.

For juniors, my advice is to embrace these moments—both the fun and the challenging. Get to know your professors, as they can be great mentors; take care of yourself because college can be overwhelming; and don't be afraid to step out of your comfort zone. Use all the resources available to you, whether it's academic help or mental health support, and always stay true to who you are. College flies by, so live fully and make the most of every opportunity!

Here's to the future we'll build, the dreams we'll chase, and the memories we'll cherish. Congratulations to us all!

Warmest wishes,
Thangamarikumar K



The Glorious Night

A love for the nocturnal beauty,
You can never get enough of,
A rush of emotions,
You can never run from.

Doesn't the night make us more vulnerable?
An unusual amount of everything.
What-ifs and maybes,
Midnight snacks and melancholic poetry.

I look outside,
Looking for myself, inside.
The moon and the stars,
My flaws and my feuds.

Retrospective reflections fuelled by the raspy wind,
Whispering secrets in an alien language.
"You shouldn't have said that."
"You should have said that."

Revelling in these hours of darkness,
Enwrapped in my questions and musings,
I give myself up to the chill of the night
In a delightful shiver and smile.

Asking for more of the night
Than she had to offer.
Wishing for more of this life
Than fate had to offer.

As deep as these thoughts go,
The night isn't as poignant always.
Flashes of myriad memories of a carefree night,
Good food, merry music and loud laughter.

by

D.Milason Bharath

4th Year

ELECTRIC AIRCRAFT AND URBAN AIR MOBILITY (UAM)

Electric Aircraft

Electric aircraft are airplanes that rely on electric power for propulsion instead of traditional internal combustion engines. The shift towards electric aviation is driven by the desire to reduce greenhouse gas emissions, increase energy efficiency, and minimize the environmental impact of air travel.

The Velis Electro became one of the first type certified crewed electric aircraft on 10 June 2020.

Key Features:

1. **Electric Propulsion:** Electric aircraft use electric motors powered by batteries or fuel cells for propulsion.
2. **Reduced Emissions:** By relying on electric power, these aircraft produce fewer emissions, contributing to the global effort to combat climate change.
3. **Energy Efficiency:** Electric propulsion systems are generally more energy-efficient compared to traditional aircraft engines,

4. **Innovative Designs:** Electric propulsion enables novel aircraft designs, such as distributed propulsion systems and electric vertical takeoff and landing (eVTOL) configurations.
5. **Noise Reduction:** Electric motors are inherently quieter than traditional engines, reducing noise pollution in both air and ground operations.

Urban Air Mobility (UAM):

Urban Air Mobility refers to the transportation of people and goods within urban areas using small, electric vertical takeoff and landing (eVTOL) aircraft. It envisions a future where on-demand air transportation becomes an integral part of urban mobility solutions.

In conclusion, electric aircraft and urban air mobility represent promising developments in the aviation industry, offering sustainable and efficient solutions to address the evolving needs of urban transportation. While there are challenges to overcome, ongoing research and technological advancements continue to push these concepts closer to becoming a reality.

by
S.THARUN KUMAR
2nd Year

VEHICLE-TO-EVERYTHING(V2X) TECHNOLOGY

Vehicle-to-Everything (V2X) technology is a transformative innovation in the automotive industry, enabling seamless communication between vehicles and their surrounding environment. This encompasses a broad spectrum of communication, including Vehicle-to-Vehicle (V2V), Vehicle-to-Infrastructure (V2I), Vehicle-to-Pedestrian (V2P), and Vehicle-to-Grid (V2G). V2X systems utilize wireless communication protocols, such as Dedicated Short-Range Communication (DSRC) and Cellular Vehicle-to-Everything (C-V2X), to facilitate real-time data exchange. By fostering connectivity, V2X aims to enhance road safety, reduce traffic congestion, and improve overall transportation efficiency.

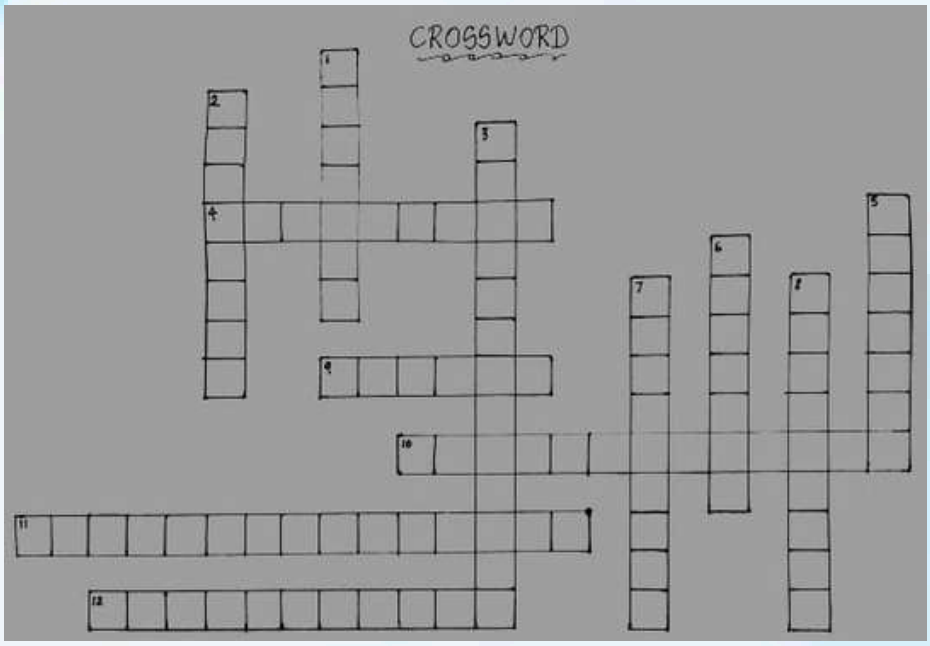
In the context of V2V communication, vehicles exchange critical information, such as speed, position, and direction, with nearby vehicles. This allows for advanced driver assistance systems and collision avoidance mechanisms, contributing to a safer driving environment. Additionally, V2I communication involves interaction between vehicles and infrastructure elements like traffic lights, road signs, and smart intersections. This integration optimizes traffic flow, reduces delays, and supports intelligent transportation systems.

V2P communication is a crucial aspect of V2X, focusing on the interaction between vehicles and pedestrians. Pedestrians equipped with compatible devices, such as smartphones or wearable technology, can receive warnings from approaching vehicles, enhancing pedestrian safety. Furthermore, V2G technology enables communication between electric vehicles and the power grid. This two-way interaction facilitates smart charging, grid balancing, and the integration of renewable energy sources, contributing to a more sustainable and resilient energy ecosystem.

The successful implementation of V2X technology relies on standardized communication protocols, regulatory frameworks, and widespread adoption by both automotive manufacturers and infrastructure providers. As the automotive industry moves towards increased autonomy and connectivity,

by
R.THANGALAKSHMI
2nd Year

CROSSWORD



ACROSS

4. A Material that does not really conduct electricity.

9. A Device for making and breaking the Connections in an electric circuit.

10. A circuit where the current follows one path.

11.A circuit where the current divides into two or more paths before recombining to complete the circuit.

12. An electric circuit that is not complete down.

DOWN

1.A closed path through which an electric current flows or may flow.

2. An electric component that regulate the flow of electrical current in an electronic circuit.

3. A complete electrical connection around which current flows.

5. The flow of electrical charge.

6.A container storing chemical energy to be converted into electrical energy.

7. An electric circuit element used to store charge temporarily

ANSWERS:

ACROSS

4. INSULATOR

9. SWITCH

10. SERIES CIRCUIT

11. PARALLEL CIRCUIT

12. OPEN CIRCUIT

DOWN

1. CIRCUIT

2. RESISTOR

3. CLOSED CIRCUIT

5. CURRENT

6. BATTERY

7. CAPACITOR

8. CONDUCTOR

by

A-BALAJI

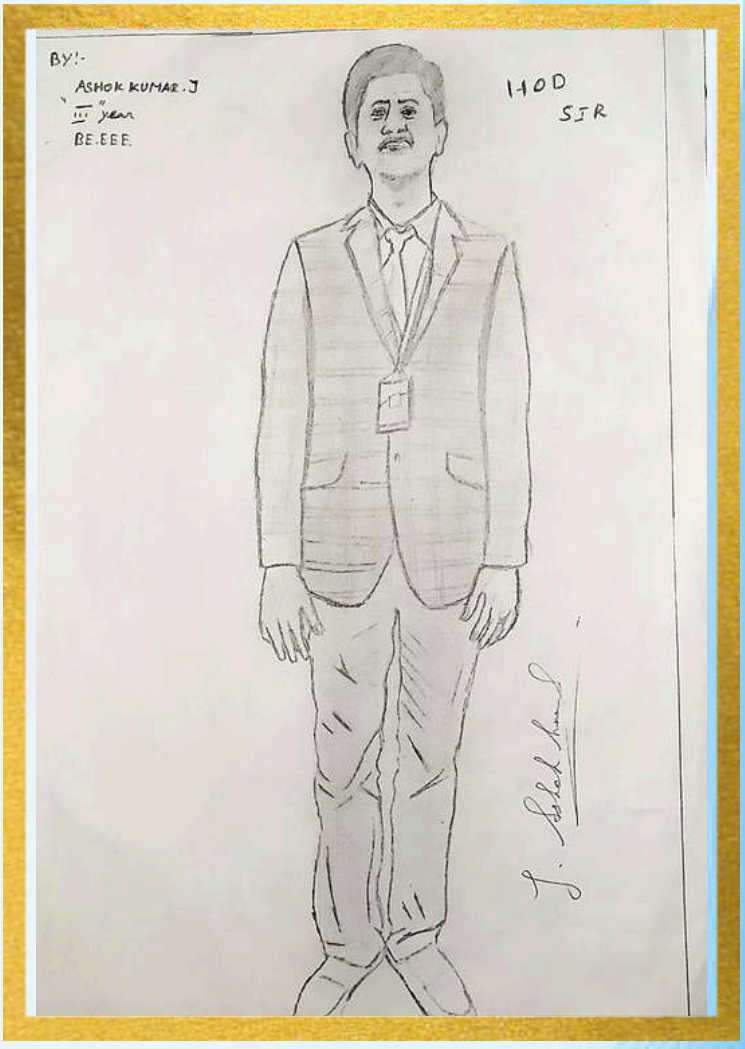
2nd YEAR

Electricity flows with a spark,
Through circuits it leaves its mark.
In wires and circuits it travels far,
Powered by electrons, like a shooting star.

Transformers and capacitors, they play a role,
Resistors and diodes, they help control.
From generators to motors, they bring power,
Electrical engineering, it's a marvel to devour.

by
V.DINESH
3rd Year

ART WORKS



ASHOK KUAMR .J

3rd year

FAISCA 2K23

TEACHER'S CORNER

VOICE of INSTITUTION`S INNOVATION COUNCIL

IIC- Institution's Innovation Council which comes under the Ministry of Education(MoE), Innovation Cell, Govt. of India.The deep focus of our IIC is to make the students to understand how to

CREATE EMPLOYMENT RATHER THAN SEEKING EMPLOYMENT

IIC organizes programmes to find the talents possessed by our children and enhance their talents in their own field as Entrepreneurs. IIC is taking sustained actions to promote the thought process of students by conducting various awareness programmes and capacity building programmes and Innovation Competitions at various levels.

The Best Innovations are recognized with Cash Prizes and Certificates. If the students are found to be deterministic and focussed , they are sent to various Institutions all over India to participate in competitions which builds their self confidence.

As per hindubusinessline.com on 29.02.2024, Tamil Nadu has crossed 8,000 Department for Promotion of Industry and Internal Trade (DPIIT) registered start-ups, a significant increase from 2,300 start-ups in 2021.

Next move of our IIC is to search for futurepreneurs who have focus & determination in building their career as an Enterpreneur and to guide them in the right path to become one among the future nos of DPIIT Registered Start-ups Founders.

Dr.R.Padmavathy,
IIC Convener,
NPSBCET

FOURTH YEAR (2019-2023 BATCH)

2nd Row: K.Santhosh,K.Ashokan,M.TAMIL ARASAN,A.RAVIN KUMAR,D.MILSON BHARATH
1st Row:Miss.R.Revathi,Dr..R.Sasikala,Miss.M.Devi,Miss.S.Anandhi,Dr..R.Padmavathy,Dr..R.Venkatasubramanian(HOD),Dr..S.ParthasarathyMr.K.Sarathy,Dr..R.Dhilip kumar

THIRD YEAR (2020-2024 BATCH)

2ndRow:Vignesh.S, Sathish.S, Vikraman.k, Vijaya Kumar A, Sivaramakrishnan K, Jayakumar S, Ambethkar P, Dinesh.v, Robinson R, Sahil Dhanaji Zimal, Gokulakrishnan R

1st Row:Miss.R.Revathi,Dr..R.Sasikala,Miss.M.Devi,Miss.S.Anandhi,Dr..R.Padmavathy,Dr..R.Venkatasubramanian(HOD),Dr..S.ParthasarathyMr.K.Sarathy,Dr..R.Dhilip kumar

SECOND YEAR (2021-2025 BATCH)

2ndRow:Suresh.D,Arun.S,Manish Kumar.R,Srinath.K,Gajalakshmi.S,Ramya.S,Priyanka.V,Thangalakshmi.R,Tharun kumar.S,Lakshmi Narayanan,Balagi.A,Sai balaji.D

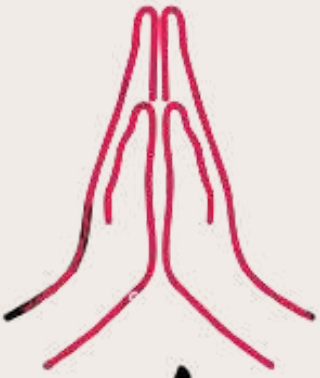
1st Row:Miss.R.Revathi,Dr..R.Sasikala,Miss.M.Devi,Miss.S.Anandhi,Dr..R.Padmavathy,Dr..R.Venkatasubramanian(HOD),Dr..S.ParthasarathyMr.K.Sarathy,Dr..R.Dhilip kumar

FIRST YEAR (2022-2026 BATCH)

3Row; A.Arun, A.Akash jebakumar, MK.Sowndar, BM.Elavarasan, V.Deepak, S.Kathiresan, R.Sarveen, K.Chellakutty, A.Anto christofar, Bharath, R.Sasintharlakshmi.R,Tharun kumar.S,Lakshmi Narayanan,Balagi.A,Sai balaji.D

2nd Row; S.Gunamathi, V.Lavanya, V.Deepika, P.Kayasri, SA.Suhakauser, S.Indira

1st Row; Dr.R.Sasikala, Miss.R.Revathi, Dr.R.Padmavathy, Dr.R.Dhilipkumar, Dr.R.Venkat subramaniam(HOD), Mr.K.Sarathy,Dr..R.Padmavathy, MIss.M.Devi, Miss.S.Anathi, Mr.Prasadrao



Thank you.

Success can come to you by courageous devotion to the task lying in front of you

-C.V. RAMAN

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