



# ECE NEWZ



# CATHODIC

VOLUME 3  
ISSUE 3

# DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

## Vision

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“TO GENERATE TECHNICALLY COMPETENT EMPLOYABLE ENGINEERS FOR THE ELECTRONICS AND COMMUNICATION INDUSTRY WHO WILL WORK TOWARDS THE BETTERMENT OF SOCIETY AND NATION.”

## Mission

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- IMPART KNOWLEDGE IN THE FIELD OF ELECTRONICS WITH AMPLE OPPORTUNITIES FOR PRACTICE, RESEARCH, INNOVATION AND ENTREPRENEURSHIP.
- ADAPT TO TECHNOLOGICAL ADVANCEMENTS BY REGULAR INTERACTIONS WITH EXPERTS FROM INDUSTRY AND ACADEMICIANS TO GENERATE QUALITY PROFESSIONALS.
- PROVIDE VALUE BASED EDUCATION TO DEVELOP SOCIALLY RESPONSIBLE ENGINEERS.



## Program Educational Objectives (PEOs)

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GRADUATES OF ELECTRONICS AND COMMUNICATION ENGINEERING SHALL

- PEO1: DEMONSTRATE TECHNICAL APTITUDE TO IDENTIFY, ANALYSE AND DESIGN INNOVATIVE, SUSTAINABLE AND COST EFFECTIVE SOLUTIONS FOR COMPLEX ENGINEERING PROBLEMS.
- PEO2: FUNCTION EFFECTIVELY AS AN INDIVIDUAL AND ATTUNE ONESELF TO DIVERSE TEAMS AND INTERDISCIPLINARY VENTURES.
- PEO3: APPLY ACQUIRED KNOWLEDGE AND ETHICAL PRINCIPLES FOR THE BETTERMENT OF THE SOCIETY.



# FROM HOD

"Technology is nothing. What's important is that you have a faith in people, that they're basically good and smart, and if you give them tools, they'll do wonderful things with them." - Steve Jobs

As we continue our journey through the academic year, I would like to extend my best wishes to the editorial team of our newsletter. Your hard work and dedication in keeping our department informed and connected is truly appreciated. Your efforts in creating this newsletter play an important role in building a strong and cohesive community within our department.

As we continue to push the boundaries of electronics and communication engineering, I am proud of the many achievements and advancements our department has made in this field. We have a talented and dedicated faculty and staff, and I am confident that we will continue to make great strides in this term.

I would like to take this opportunity to remind all students to make the best use of this time to enhance your knowledge and skills, and to actively participate in the various activities planned by the department. As an engineering student, you are part of a field that is constantly evolving and advancing. Technology is advancing at an unprecedented rate, and it is important for engineers to stay up-to-date with the latest developments in order to be successful in their careers.

One way to stay current is to actively seek out new information and resources. This can include reading industry publications, attending conferences, and networking with other professionals in your field. Additionally, consider taking continuing education courses to learn about new technologies and techniques.

Another way to stay current is to be curious and open-minded.



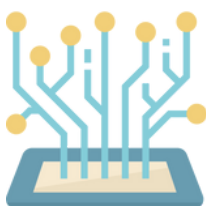
# FROM HOD

Be willing to explore new ideas and think outside the box. Engineers who are willing to take risks and try new things are often the ones who make the biggest breakthroughs.

But staying current with technology is not the only thing that makes an engineer. To be a true engineer, you must also have a strong ethical foundation. Engineers have the power to shape the world around us, and with that power comes a great responsibility. It is important to always consider the consequences of your actions and to design and build things that will benefit society as a whole.

Additionally, a true engineer possess the ability to work well in teams, have a strong work ethic, and effective communication skills. As an engineer you will be working with other professionals in different fields, and to be successful, you need to be able to effectively communicate your ideas and collaborate with others.

I encourage all of our students, faculty, and staff to take an active role in our department's activities and to continue to share your ideas, suggestions, and feedback. Together, we can make our department an even better place to learn, work, and grow.



Dr. Neenu Joseph



BATCH

11  
*Welcome*

ECE

# *Welcome*



**Prof. Gregorious Jose**



**Prof. Akshara Babu**



# SEMICONDUCTORS PATH TO SUSTAINABILITY

## Sustainability Challenge

We hear a lot about sustainability, but what exactly is it? The current Oxford English Dictionary definition of sustainability is “The quality of being environmentally sustainable; the extent to which a process or enterprise can be maintained or continued while avoiding long-term depletion of natural resources.” This is a complex concept and three aspects are worth talking about.

First, the impact. Simply put, sustainability is about our children and grandchildren and the world we leave to them.” We often talk about the environment as if it is a separate thing, but the reason it is important is because we all share it. In fact, it is hard to imagine a more important impact. And as engineers, isn't that the main reason we make technology? – to make the world a better place. This may sound naive, but only if we do not consider the following two aspects. Next, the range. The scope is of course global. We can improve our local environment, but to truly make the world a better place, we need to think and act globally. This means that we can develop our technology in a way that transcends national borders and politics, but still works within the value structures we have as a society. As engineers, we want our technology to be used globally, and that means understanding the business, not just the technology.

Which leads to the last aspect, balance. Sustainability means achieving a balance between the environment, social justice and the economy.<sup>1</sup> We live in a world where our technology creates value, but only if people have access to it. And from an economic perspective, the reality is that consumer buying patterns are changing, and in fact



# SEMICONDUCTORS PATH TO SUSTAINABILITY

any product deemed "green" can command a value premium over equivalent "non-green" products. Food is one example, and companies like Whole Foods are built to benefit from the green premium. But it doesn't end there. Sustainability can add to the value our technology can create, and cars, semiconductors and software are next.

Semiconductors and software are more important than ever before. The role of semiconductors in our life is becoming very well known. The covid-19 pandemic has shocked many industries around the world, and now that the world is emerging from the pandemic, we are seeing a surge in consumer demand from consumers to the automotive industry and beyond. Supplies are limited, costs are rising and markets are volatile. The semiconductor industry is on a strong 26% year-over-year increase, now reaching more than \$600 billion in annual revenue. That's almost \$100 a year for every person on Earth. Does this remarkable growth mean a downturn is coming? This is unclear. However, semiconductors have proven highly resilient during economic cycles in the past. In fact, semiconductor growth has averaged more than 8.5% CAGR over the past three decades. This resilience is due to the growing and deep support of semiconductors in key megatrends in electrification, experience, automation, communications and more.

As big as the industry is, the value created by chips is much larger, estimated at tens of trillions of dollars. The reason lies in the way the chips work. They are the semiconductor chips that measure the world around us, process signals, power the cloud, and enable software to run on computers, mobile phones, cars, factories, etc.





# SEMICONDUCTORS PATH TO SUSTAINABILITY

Simply put, without chips, we don't have much. technology we can rely on. And the software that runs on our chips, plus the added value from the green premium, greatly increases our technological impact.

## IMPACT OF ADI TECHNOLOGY

When trying to make a positive impact on sustainability, we first need to understand how to measure it. Impact is not just what we do with our own technology, but how customers use ADI technology to impact the environment. Greenhouse gas (GHG) emissions are one way of measuring impact, and in fact transport, buildings/manufacturing and electricity account for 74% of the world's total GHG emissions.

We have developed a model of how much emissions savings are achieved by customers using ADI technology, which is shown in the graph above. Customers using ADI technology are on track to save 250 million tons of greenhouse gases annually by 2025 and nearly 600 million tons by 2030. To put the 600 million tons into context, it is estimated that the world needs to save 51 billion tons. per year to achieve a "net zero" balance for GHG emissions Of course, there are other types of ADI technologies that also have an impact, and these may be added as we move forward. But first, let's dive a little deeper into electrification.

## GROWTH OF SEMICONDUCTORS AND ELECTRIFICATION

Electrification is a broad term encompassing not only electric vehicles (EVs) of all types, but actually anything with a plug. And it also covers the electrical grid to which all things with plugs are



# SEMICONDUCTORS PATH TO SUSTAINABILITY

connected. From an economic perspective, the automotive industry is quickly becoming one of the most significant drivers of impact on the electric grid. In fact, the automotive industry is at its most significant midpoint in history. To date, all major OEMs have announced investments from gasoline engines to EVs. That's good news for semiconductor and software companies.

Today's car contains semiconductor content for an average of \$450. However, an equivalent EV contains approximately 3x the content. There are currently 16 million EVs on the road and we expect this to grow to over 125 million EVs over the next 5 years. That means you can expect about half of all automotive semiconductors to be in EVs in the next 5 to 10 years. However, it is not only hardware content that is growing in cars. Software content is growing massively. It is estimated that by 2030, software will become the biggest driver of automotive sales, even bigger than car sales. This tectonic shift presents a huge opportunity for companies like ADI to build added value on semiconductors. In fact, we are capturing this value now. For example, the recent wireless BMS technology we introduced is built on a complete ADI platform built from the ground up, which includes not only the hardware, but also an entirely new wireless protocol stack. This system supports wireless updates and achieves the highest security rating in the industry.

From a technological point of view, the battery is the basic system for an EV. EV batteries need to connect to the grid in order to be charged, and can also serve as storage elements to feed energy back into the grid. The business models of how consumers, billing companies and OEMs reimburse or pay for this energy continue to



# SEMICONDUCTORS PATH TO SUSTAINABILITY

evolve and you will see the ecosystem continue to change. ADI delivers technology on both sides of the charging cable. On the vehicle side, ADI is a leading supplier of semiconductors and software that power the battery management system (BMS) electronics and deliver power between the battery, the vehicle's powertrain and the grid.

The rise of electric cars has a major impact on the requirements for the way the electric grid is managed. First consider the electrical load. The maximum load from 125 million EVs is about -10 (TWh). Although this is small compared to the expected growth in total world electricity production from 25,000 to 28,000 TWh," the load is uniquely dynamic both in time and space as EVs move within the infrastructure. Therefore, not only the total load must be able to be manipulated, it must also be controlled in real time, so that power is delivered smoothly and without interruption to all electrical devices on the network. On the network side of the charging cable, ADI supplies the technology for accurate measurement, control and real-time signal processing. In fact, ADI is designed to be the world's most sophisticated secondary substation, adding intelligence at the edge of the grid to ensure reliable power delivery and grid management, we expect this type of device to become the new standard as the grid continues to become more decentralized and noisy as new energy sources and new energy loads.

Finally, let's discuss clean energy. While fossil fuels will continue to provide some of the world's energy needs, much of the future growth will come from clean energy. The increase is happening at a global level and is not only driven by climate agreements, but also by the economy. Solar and wind power are cheaper than oil, and EV



# SEMICONDUCTORS PATH TO SUSTAINABILITY

consumers enjoy the convenience and savings of paying for miles at the outlet versus paying at the gas station. However, clean energy sources operate intermittently and energy storage systems must be managed to ensure a continuous supply to the grid. Although the market for energy storage is much smaller than for EVs, energy storage systems are growing even faster than EV production and rely on precise BMSs tailored to their specific use cases. This challenge presents significant opportunities for precision and processing technology developed by ADI.

## **ACCELERATING THE FUTURE**

Looking to the future, we see the carbon-saving impact of semiconductors putting pressure on supply chains to become greener over time. Getting to a truly zero carbon BOM is very difficult for semiconductors. However, there is a premium to be made for those who get there first. Today's consumers are paying more for green products, and semiconductors are expected to follow suit. So, let's ask for it. When will we see a carbonless package?

And there are other initiatives. For example, ADI is building on our industry leadership in BMS to create a major new initiative to enable sustainable batteries. Working with partners, we develop battery life cycle insights to detect anomalies, monitor battery health and assess value for off-vehicle second-life applications. This is exciting news for the industry, ADI and the journey to sustainability.

Our impact on the planet has never been more important than it is



# SEMICONDUCTORS PATH TO SUSTAINABILITY

today. And our influence here at ADI allows us to continue to innovate ahead of the industry. We are only at the beginning of making the world a more sustainable place, and electrification using semiconductors is a key technology enabler to accelerate towards a net zero future.



Annet Maria Cyriac  
S6 ECE





# THE POWER OF SUPERCAPACITOR REVEALED

Supercapacitors, also known as ultracapacitors or electrochemical capacitors, are energy storage devices that have the ability to store and release large amounts of electrical energy quickly and efficiently. They have been in existence for decades, but only recently have they begun to gain widespread attention due to their unique properties and potential applications.

One of the key advantages of supercapacitors is their ability to charge and discharge rapidly. Unlike batteries, which can take hours to charge and discharge, supercapacitors can charge and discharge in a matter of seconds. This makes them ideal for use in applications such as electric vehicles, where quick acceleration and regenerative braking are important. For example, a supercapacitor can be charged during regenerative braking and then used to power the electric motor during acceleration, reducing the load on the main battery and increasing the overall efficiency of the vehicle.

Another advantage of supercapacitors is their long lifespan. Unlike batteries, which can degrade over time and lose their ability to hold a charge, supercapacitors can last for millions of cycles. This makes them ideal for use in applications such as wind and solar power storage, where long-term reliability is essential. They also have a much wider temperature range of operation, which makes them less prone to failure in extreme conditions.

Supercapacitors also have high power densities, which means they can store and release large amounts of energy in a small space. This

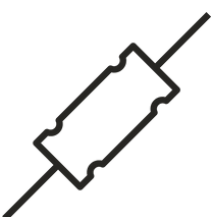


# SEMICONDUCTORS PATH TO SUSTAINABILITY

makes them ideal for use in portable electronics and other small devices, where space is at a premium. They can also be used in combination with batteries to increase the overall energy density of a system, allowing for smaller and more efficient devices.

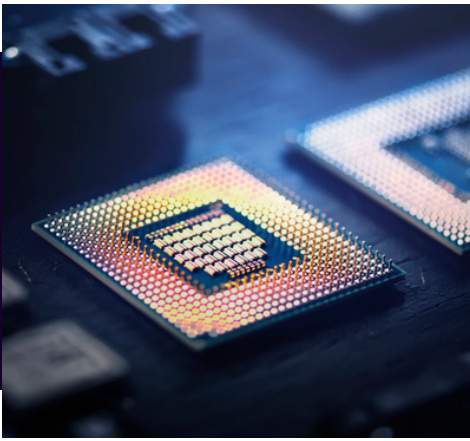
Supercapacitors also have the ability to handle high current loads, which makes them ideal for use in applications such as power tools, where high power and fast discharge times are required. They can also be used in grid energy storage to provide short-term balancing of supply and demand, which can help to reduce the need for expensive peaker power plants.

In summary, supercapacitors are an innovative energy storage technology that offers a number of advantages over traditional batteries, including faster charging and discharging times, longer lifetimes, and higher power densities. These characteristics make them well-suited for use in a wide range of applications, including electric vehicles, renewable energy storage, portable electronics, power tools, and grid energy storage. As technology continues to improve, the power of supercapacitors will continue to be revealed and they will play an increasingly important role in powering our world.



Rincy Varghese  
S6 ECE





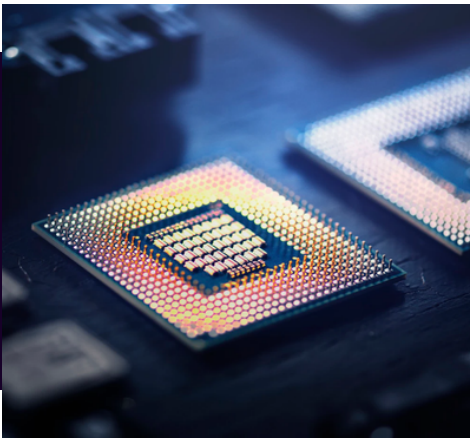
# INTEL'S TAKE ON THE NEXT WAVE OF MOORE'S LAW

Moore's Law, first proposed by Intel co-founder Gordon Moore in 1965, states that the number of transistors on a microchip will double approximately every two years, leading to a corresponding increase in computing power and a decrease in cost. For several decades, this law has held true, driving the rapid advancement of technology in fields such as computer processing, artificial intelligence, and the internet of things. However, as transistors have grown smaller and denser, the challenges of continuing to shrink them have become increasingly difficult to overcome.

In recent years, Intel has been at the forefront of efforts to continue the progress of Moore's Law, despite these challenges. One of the key strategies that the company has employed is the use of 3D transistor architecture, also known as FinFET technology. This approach involves stacking transistors on top of each other, rather than arranging them side by side, which allows for a higher density of transistors on a chip. Intel has also been investing in other advanced technologies such as silicon photonics, which uses light instead of electricity to transmit data within a chip, and quantum computing, which has the potential to revolutionize computing by harnessing the properties of subatomic particles.

Another strategy that Intel is pursuing to continue Moore's Law is to focus on specialized, application-specific chips, rather than general-purpose processors. This includes developing processors for specific tasks such as machine learning, autonomous vehicles, and 5G networking. These specialized chips can be optimized for specific tasks and can provide much higher performance than general-





# INTEL'S TAKE ON THE NEXT WAVE OF MOORE'S LAW

purpose processors, which can be less efficient at performing specialized tasks.

In addition to these technological advancements, Intel is also investing in research and development to explore new materials and manufacturing processes that could enable the continued scaling of transistors. For example, the company is exploring the use of extreme ultraviolet (EUV) lithography, which uses shorter wavelength light to create smaller and more precise transistors.

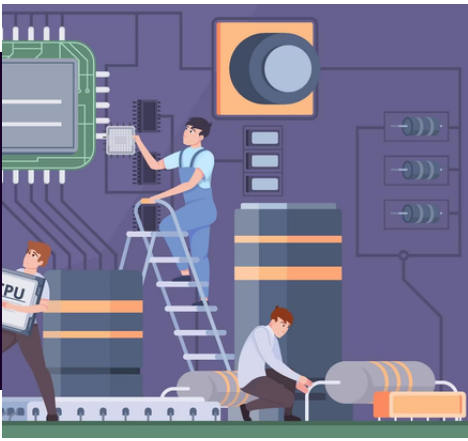
In conclusion, Intel is taking a multi-pronged approach to continue the progress of Moore's Law, despite the challenges posed by the physical limitations of transistors. By utilizing 3D transistor architecture, advanced technologies such as silicon photonics and quantum computing, and focusing on specialized, application-specific chips, as well as investing in new materials and manufacturing processes, Intel is positioning itself to continue to push the boundaries of computing power and efficiency in the years to come.



Liyamol Benson

S6 ECE



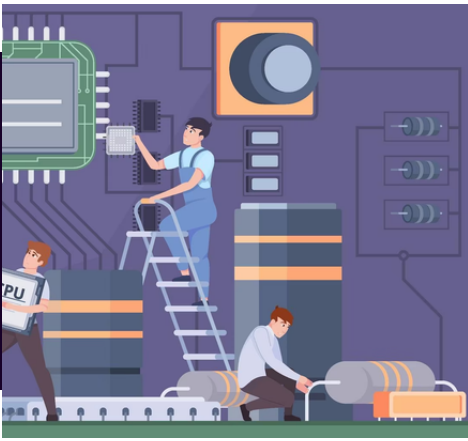


# FUTURE TRANSISTORS, PLASTIC PROCESSORS AND 3D CHIPS

The continued advancement of technology is driven by the relentless pursuit of smaller, faster, and more efficient transistors. The traditional silicon-based transistors that have been used for decades are approaching their physical limitations, and new materials and technologies are needed to continue the progress of Moore's Law. In the future, researchers are exploring a variety of new materials and approaches to create the next generation of transistors, including plastic processors and 3D chips.

One promising area of research is the use of plastic transistors. These transistors are made from organic materials such as polymers and small molecules, which have the potential to be cheaper and more flexible than traditional silicon-based transistors. Plastic transistors have already been shown to be capable of high performance, and they have the added advantage of being able to be printed using low-cost, large-scale manufacturing techniques. In addition, plastic transistors can be made transparent, which opens up new possibilities for applications such as flexible displays and smart windows.

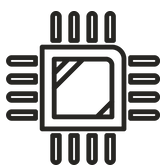
Another area of research is the development of 3D chips, which stack multiple layers of transistors on top of each other, rather than arranging them side by side. This approach allows for a higher density of transistors on a chip, and it also has the potential to improve thermal management and reduce power consumption. 3D chips have already been demonstrated in laboratory settings and have shown to be promising for applications such as high-performance computing and memory storage.



# FUTURE TRANSISTORS, PLASTIC PROCESSORS AND 3D CHIPS

In addition to these new materials and technologies, researchers are also exploring new manufacturing processes to create the next generation of transistors. One example is the use of extreme ultraviolet (EUV) lithography, which uses shorter wavelength light to create smaller and more precise transistors. EUV lithography is considered to be one of the most promising technologies for the continued scaling of transistors, and it is expected to be used in commercial manufacturing in the near future.

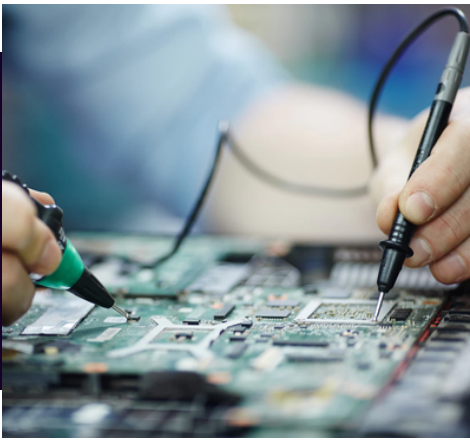
In conclusion, the future of transistors is promising, with the potential for new materials and technologies to continue the progress of Moore's Law. Plastic transistors and 3D chips are two examples of the cutting-edge research being conducted in the field, and new manufacturing processes such as EUV lithography are expected to enable the continued scaling of transistors. As technology continues to advance, we can expect to see even more powerful, efficient, and innovative devices in the future.



Sanfin Antony

S6 ECE





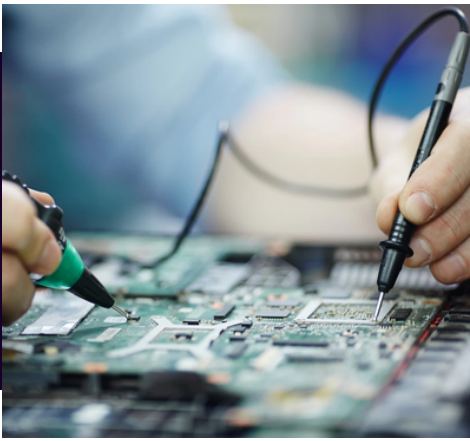
# INDUSTRIAL VISIT

## Industrial Visit Report – Batch 8 – 2022

An industrial visit to IPCS Automation , Calicut was organised by Aisat ECE S6 students on 10-6-22 . Faculty coordinators are Sonu Kunjamamma Varghese , Edwin Antony . We started our journey from Aisat on 10-6-22 at 5 am . We visited Wayanad and IPCS and returned Aisat on 12-6-22.

IPCS -Ingenious Power and Control Systems P LTD offers perfect automation solutions to a vast array of industries which include but are not confined to software, marine and construction engineering. They are Expertise in Process automation, Factory automation, Machine automation, CNC solutions, Energy Management, Calibration and testing, Lightning and surge protection. They provide industries with services ranging from proposing and installing to the absolute commissioning of automated system, completely adhering to the industry standards. IPCS provides its customers with a plethora of products- HMI systems, Programmable Logic Controllers (PLCs), DCS systems, Supervisory Control and Data Acquisition (SCADA), drives, sensors, DCS systems and much more.

Department of Electronics and Communication Engineering had arranged a half day industrial visit to IPCS Automation on 10th June 2022, 35 students of 3rd year and 2 faculties had taken part. As we reached the place a briefing was given about IPCS Automation. They are Expertise in Process automation, Factory automation, Machine automation , CNC solutions, Energy Management, Calibration and testing, Lightning and surge protection. Apart from all these, they conduct numerous training programs in corporate companies and



# INDUSTRIAL VISIT

also for professionals in the areas of PLC, SCADA, DCS, HMI, Drives, Embedded, Panel Designing, Process Control, Electric Controls and Industrial Networking.

We entered the place around 11.30 am. The visit to IPCS Automation was very informative, as we got a complete idea about the Electrical drives and controls, Field Instrumentation and Pneumatic, Programmable Logic Controllers (PLC), Supervisory Control And Data Acquisition (SCADA), Distributed Control System (DCS), Human Machine Interface, and Control Panel Designing. The head of IPCS, gave us idea about the career in automation. He addressed about the current projects in their organisation.



Aaysha.V.S  
S6 ECE





# ACADEMIC ACTIVITIES

## June 2022 :

- The 'Meet the Alumni' program was conducted on June 9, 2022. Mr. Ashik VA , Software developer, UST global( 2015-19 ECE batch) was alumni of the day.
- A webinar 'coding simulation' by Ms. Nisha Varghese was conducted on 23 June 2022 as part of course enrichment activity for the subject- Information theory and coding.
- A talk on "Basics of coding and C programming" was conducted by S2 ECE students as part of tinkershub on 9 June 2022.
- An automatic bell was designed for the college by IEEE SB AISAT and was inaugurated by Dr. Neenu Joseph on 29 June 2022.
- As a part of activity of IEEE SB AISAT, a talk on "Making IEEE your professional home" by Tom Coughlin, IEEE fellow was conducted on 20 June 2022.
- A Course enrichment program on "Signal Processing and its application on Signals and System was conducted on 30 June 2022. Mr. Paul Mathews, MBITS, Kothamangalam was resource person of the webinar.

## July 2022 :

- Abhinav Vichar 2022 Finale was conducted on 2nd July 2022. Dr. Neenu Joseph, Dr. Linss T Alex and Er. Berly Earnest were the members of judging panel.



# ACADEMIC ACTIVITIES

- A webinar on 'VLSI based implementation of Embedded Systems' was conducted on 21 July 2022. Mr. Anoop Thomas, Dept. of ECE, RSET was the resource person.
- The course enrichment activity –seminar on “Mystery of Processors” was conducted by Prof. Paul Ansel V on 27 July 2022
- NBA prequalifier of department of ECE got approved on 29 July 2022.
- Prof. Ambily Joseph attended soft skills training program for students conducted by NPTEL local chapter SPOCs.

Aug 2022:

- The dept. of ECE had applied to open a student chapter of Institution of Engineers-IEI. Dr. Saju A is the faculty advisor.



# STUDENTS & ACTIVITIES

- Annet Maria Cyriac, Boniface Noel, Athira Rajesh, Savanth P.S, Suhana K Ubaide of S6 ECE received the NPTEL certificate for attending the course "CMOS Digital VLSI Design" organized by IIT, Roorkey.
- The students of S4 ECE attended the Course enrichment program on "Signal Processing and its application on Signals and System conducted on 30 June 2022.
- The students of S8 ECE attended the course enrichment session on Network security handled by Dr. Jeswin Roy Dcouth.
- Students of S6 ECE had been on Industrial visit to IPCS automation, Calicut on 10 June 2022 accompanied by Prof. Sonu K Varghese.
- Akhil B Xavier of S4 ECE participated in Hackathon Starter kitworks-hop conducted by TinkerhubCET on the 21, 22 June 2022.
- Akhil Musthafa of S4 ECE received certificate for volunteering in communication internship of Life Mission Project organized by Life Mission, Kerala along with Good Deeds day and DC volunteers in the month May- June 2022.
- Athira Rajesh Volunteered for 'IGNUS', state level presentation competition organized by RFID Council IEEE Kerala Section on 6th June 2022
- Athira Rajesh, Annet Maria Cyriac, Savanth P S of S6 ECE, volunteered for " Making IEEE a professional home" conducted by IEEE SB AISAT on 20 th June 2022
- Annet Maria Cyriac, Athira Rajesh of S6 ECE, Savanth P S attended Student branch execom training conducted by IEEE SB AISAT in association with IEEE Link kerala section. 28th June 2022





# STUDENTS & ACTIVITIES

- Athira Rajesh of S6 ECE, Savanth P S, Annet Maria Cyriac of S6 ECE volunteered for Abhinav Vichar 2022 conducted by department of ECE, AISAT in collaboration with IEEE SB AISAT and IEDC AISAT on 2nd July 2022.
- Boniface Noel, Harikrishnan Anandan, Athira Rajesh, Annet Maria Cyriac, Athira Rajesh and Savanth P S of S6 ECE were part of “A New Symphony”, a college bell project done as a part of IEEE SB AISAT.
- Maria Densel of S4 ECE, Hisna M S, Rusfidha Jaffer, Riya Roy & Mary Santeena of S2 ECE received certificate from Narcotics Bureau- “Say Yes to life, No to Drugs’ on 28th July 2022
- Athira Rajesh and Annet Maria Cyriac , Savanth P S of S6 ECE, volunteered for WIE Gather 2022 conducted by IEEE Kerala Section in collaboration with IEEE SB AISAT 31st July 2022.
- Joel Varghese of S2 ECE participated in the event “kidglove koottu 2022” a kerala police initiative to protect children in cyberspace on 26 July 2022.
- Doniya Job of S4 ECE had undergone internship in Keltron from 12 July 2022 to 17 July 2022.
- Suhana K Ubaid, batch 8 student is selected for finishing school as a Trainee Application Engineer with Technologics Global Pvt. Ltd., Bangalore
- Athira Rajesh of S6 ECE volunteered for ‘Chase’, National level treasure hunt competition organized by RFID Council IEEE Kerala Section on 27th Aug 2022.
- Boniface Noel of S6 ECE has participated in the virtual hackathon conducted as part of Virtusa Neural Hack 2022 on 25 Aug 2022.



# DEPARTMENT & ACTIVITIES

Innovative processes adopted by the department in Teaching and Learning :

- A webinar ‘coding simulation’ by Ms. Nisha Varghese was conducted on 23 June 2022 as part of course enrichment activity for the subject- Information theory and coding.
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Details of conferences/symposia and other events organized and conducted by the department :

- Quiz hour was organized by department Association EACE on 23 June 2022.



# FACULTY & ACTIVITIES

Faculty participation in conferences, symposia, or as resource person :

- Prof. Paul Ansel V, Handled a session on Professional Communication on 12 June 2022 in the IEEE Kochi subsection meet held at RSET
- Dr. Saju A,Handled a session on “Data Science and AI” in the faculty lecture series organized by dept. of ECE, AISAT on 18 June, 2022.
- Prof. Ambily Joseph, Handled a session on “Creating Reflection spots using H5P” for short term course on Design and Development of online courses organized by UGC, HRD centre , University of Mumbai. On 9 June 2022.
- Prof. Ambily Joseph, Handled a session on “NPTEL awareness for S2 and S4 students of dept of EEE, AISAT on 9/6/22
- Prof. Vishnu Prasad, Handled webinar on “ How big is your carbon footprint” at St. Albert’s College, Ernakulam on 11 June 2022.
- Prof. Ambily Joseph, Received the certificate of appreciation for her instrumental role as SPOC for the Swayam-NPTEL local chapter.
- Dr. Neenu Joseph, Session Chair of Second International Conference on “Next Generation Intelligent systems” on 29 July 2022 conducted at RIT Kottayam



# FACULTY & ACTIVITIES

Faculty participation in faculty development programs :

- Dr. Neenu Joseph was the reviewer for the paper “Low cost System transmitting and receiving data by 433 MHz wirelessly for educational purpose” in the journal of Engineering, Research and Report
- Dr. Neenu Joseph and Prof. Pearl Antonette Mendez participated in the online FDP on “Advanced micro/Nano sensor technologies “conducted at GEC, Palakkad on 18-20 July 2022.
- The lab faculties-Mr. Vineesh K, Ms. Anila Sebastian, Ms. Dimple Attokaran and Ms. Neethu Kennedy attended workshop on “Designing and Modelling of IoT, AI & ML Systems “organized by AICTE, ATAL Academy, Arm Education and STMicroelectronics from Aug 1-5, 2022.

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