CRES ECE MINDS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

CRES
ECE
MINDS

B.S. Abdur Rahman

Crescent
Institute of Science & Technology
Deemed to be University u/s 3 of the UGC Act, 1956

Cres ECE Minds

CONTENTS

From Vice Chancellor's Desk

DR. A. PEER MOHAMED
VICE-CHANCELLOR
B.S. ABDUR RAHMAN CRESCENT
INSTITUTE OF SCIENCE & TECHNOLOGY
CHENNAI – 600048

"Life isn't about finding yourself. Life is about creating yourself", said George Bernard Shaw, the famous Irish dramatist. This quote very well resonates on the ingeniousness of the students from the Department of Electronics & Communication Engineering which has brought forth the First Edition of the magazine "Cres ECE Minds", for the academic year 2022-2023, which showcases the efficiency of students interest and innovations.

The articles in this magazine will definitely inspire and motivate people of all ages. The magazine is also a proof that even at our lowest point we are open to the greatest change and sometimes a ray of hope is all the sunshine we need.

From the Registrar's Desk

DR. N.RAJA HUSSAIN
REGISTRAR
B.S. ABDUR RAHMAN CRESCENT
INSTITUTE OF SCIENCE & TECHNOLOGY
CHENNAI – 600048

It is heartening to know that the Department of Electronics & Communication Engineering has brought out the First edition of the Student magazine "Cres ECE minds", for the academic year 2022-2023. The mission of "Cres ECE minds" is to disseminate and diffuse the knowledge in various technological developments in the field of Electronics & Communication Engineering and enlighten the student community. The magazine is a good platform for the students to show their talents. I am happy to hear that students had put their full potential to bring out the magazine in a very effective manner.

I wish to congratulate the students and faculty of Electronics & Communication Engineering department and success for their future endeavors.

From the Dean's Desk

DR. D. NAJUMNISSA JAMAL DEAN, SECS
B.S. ABDUR RAHMAN CRESCENT
INSTITUTE OF SCIENCE & TECHNOLOGY
CHENNAI – 600048

" A DREAM IS NOT THAT WHICH YOU SEE WHILE SLEEPING IT IS SOMETHING THAT DOES NOT LET YOU SLEEP "
- DR. A P J ABDUL KALAM

The above quote suits the Electronics and Communication Engineering department as it best describes our aim in taking the department forward. The ECE department, over the years, perfected the ability to aim high and embrace excellence by the Head of the department and the team of faculty members and students. Regularly the department builds intellectual prosperity to influence success in academics, quality placements, research, and development. It is worth mentioning that the department has well-established bondage with industries and developed affiliates. They strive to train and equip their students to get placed in top multinational corporations by polishing the talent hidden in them. I believe strongly that the challenges can be confronted and resolved by presenting their achievements and skills through this magazine. The onward march in the field of technical education and research continues every day, pushing us forward to reach greater heights. Tomorrow is too late, yesterday is over, and now is the perfect moment to start! I extend my warmest wishes to both the students and faculty members of the Electronics and Communication Engineering department and wish them success on their initiative.

From the HOD's Desk

DR C. THARINI
PROFESSOR AND HEAD, ECE DEPARTMENT
B.S. ABDUR RAHMAN CRESCENT INSTITUTE
OF SCIENCE & TECHNOLOGY
CHENNAI – 600048

It is with great pleasure and pride that I peruse the pages of the ECE department magazine, in the illustrious annals of this department. I laud the Editorial board for bringing out the magazine on schedule, which is no small achievement in itself considering the time and efforts that have gone into it. The field of Electronics and Communication is at the forefront of innovation today, charting new territories. Engineering education also has kept pace with the advancements. This magazine succinctly captures the essence of the technological advances and innovation happening in this area. It highlights the achievements of the students and faculty and poses interesting research questions for future generations of students.

The creativity, innovation, and tireless pursuit of the students and faculty are showcased beautifully for the benefit of students and the general public alike. I applaud the editorial team for the hard work and dedication they have invested in realizing this goal and wish my dear students success in all future endeavors. I also encourage the forthcoming batches of students to continue the great work that has been started today and to emulate the achievements of their seniors.

TECH COLUMN
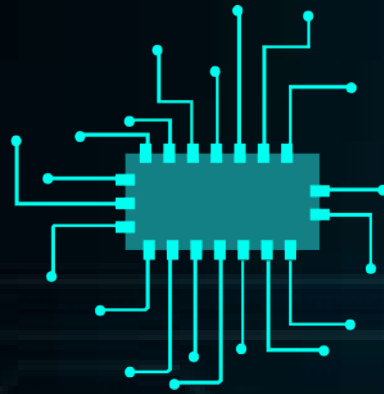
Defence Tech: Modern Warfare and Weapons

How wars are waged, borders are guarded, thieves are apprehended, and individual rights are defined are all being shaped by technology. Defence Tech keeps up with these developments by compiling the day's headlines, giving links to further resources, and offering insight into what lies ahead. It has never been more crucial to keep up with developments in the ever-changing field of electronic warfare.

The necessity for self-reliance in the defence industry has been once again highlighted by the situation in Ukraine, western tech restrictions on the Russian aerospace industry, and the ensuing issues with Russian defence production and supply chains. India, the third-largest military spender in the world, is responsible for about 11% of the global weapons trade.

The Indian defence research environment, which is still developing compared to other major military countries, is negatively impacted by these arms imports.

xperiment/Tank-Mech.001

The government is adopting a number of actions to increase the nation's R&D base by collaborating with startups and the private sector. These initiatives will be facilitated and contributed to by fostering stronger connections with other nations' defence R&D ecosystems and creative financing methods.

India's difficulties with its defence research

India's top defence R&D organisation, the Defence Research and Development Organization (DRDO), plays a key role in the indigenous development of innovative technology. It collaborates with academic institutions (through Centers of Excellence), defence public sector organisations (like Hindustan Aeronautics Limited), national science and technology establishments (like the Council of Scientific & Industrial Research), the private sector, and international partners.

It has more than 50 laboratories. These initiatives will be facilitated and contributed to by fostering stronger connections with other nations' defence R&D ecosystems and creative financing methods.

Despite its importance, the DRDO has had some difficulty developing sufficiently sophisticated technology for the Indian military.

While it is true that India's technological limitations contributed to the slow growth of the regional R&D ecosystem, it is also true that over time, the DRDO's performance was marked by cost overruns, poor project management, and inferior outcomes. The government has also tapped the start-up ecosystem through its Innovations for Defence Excellence (iDEX) programme, under the Defence Innovation Organization. In addition, the lack of a competitive peer entity and minimal participation from the academia and private sector strengthened DRDO's hold over defence R&D. (DIO). These devices frequently serve two purposes. For instance, one of the DISC winners, the underwater drone for observation and maintenance from IROV Technologies, also has a business use for the marine industry and oil and gas firms.

It is clear that the administration wants to encourage involvement in R&D from various stakeholders. The most certain path to achieving defence self-reliance is focusing on new technologies and creating a more competitive R&D environment.

The government has taken a number of policy initiatives to show that it is committed to growing India's defence R&D ecosystem. Building a national defence-industrial basis and lowering reliance on imported weapons would benefit greatly from the active involvement of the private sector and the start-up ecosystem, which are aware of the evolving nature of combat.


SRIYA SAMANVITA .M
II - B

QUANTUM CRYPTOGRAPHY

The uncertainty principle of quantum physics lays the groundwork for the initial quantum cryptographic foundations. With future quantum computers expected to solve discrete logarithmic problems and popular cryptography methods such as AES, RSA, and DES, quantum cryptography becomes the expected solution. In practice, it is used to create a shared, secret, and random bitstream that allows two systems to communicate.

Quantum encryption employs the principles of quantum physics to transmit sensitive data in a way that prevents covert listening. The most extensively researched and practical kind of quantum cryptography is known as quantum key distribution (QKD), which sends a secret key through a stream of photons. Users will be able to determine whether the key has been compromised by comparing measures obtained at either end of the transmission. Without the callers' knowledge, someone who wiretapped a phone may intercept a secret code.
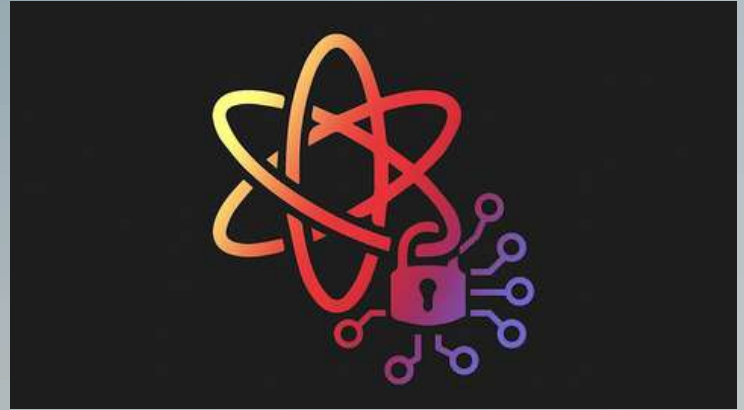
Post-quantum cryptography, also known as quantum-proof cryptography, aims to create encryption methods that cannot be broken by algorithms, or calculations, that run on future quantum computers. Today's encryption methods will not necessarily remain secure if and when quantum computers become a reality.

A quantum encrypted key, however, cannot be observed or heard without disrupting the photons and altering the results of the measurements made at each end. This is due to the uncertainty principle, a law in quantum mechanics that states that the act of measuring a property of a quantum system may change some of the other properties of the quantum object (in this case, a photon).

## Differences between Classical and Quantum Cryptography?

Classical Cryptography: Classical Cryptography depends on the computational difficulties of factoring huge numbers and is based on mathematics. The high level of complexity of the mathematical issue for the huge number factorization is the foundation for the security of classical cryptography.

Quantum Cryptography: Quantum Cryptography is a type of cryptography that is based on physics and the laws of quantum mechanics. It is an emerging technology that emphasizes quantum physics phenomena in which two parties can have secure communication based on the invariability of the laws of quantum mechanics.

Is Quantum Cryptography Used Today?

QKD has been demonstrated by scientists to work, but it is not widely used due to significant technological limitations. A single-photon laser beams a signal through a fibre optic cable, one photon at a time, to send a quantum key. This method is slower than current communication technologies and necessitates the use of a dedicated fibre optic cable between the two parties.

Distance is another consideration. Repeaters are used to send data over longer distances when fibre optic cables are used to transmit data, such as in your home internet and cable systems. However, those repeaters disrupt the delicate quantum state required for QKD.
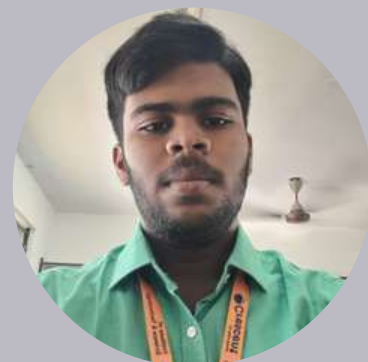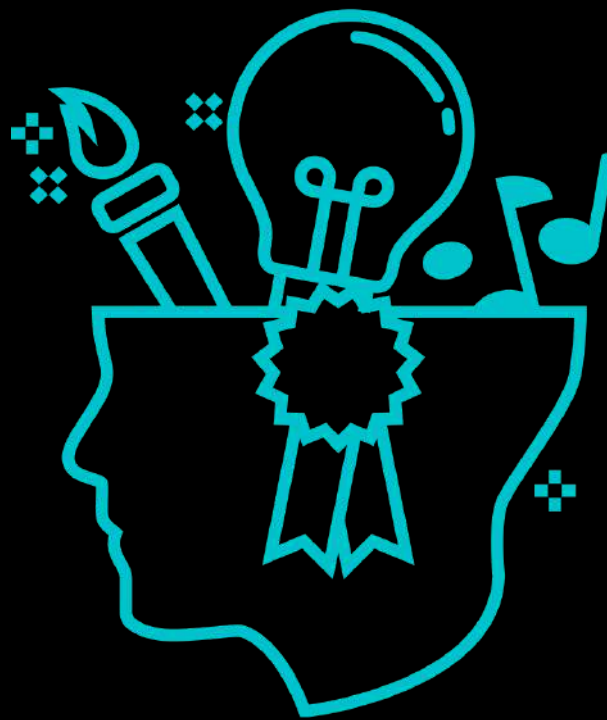
Shadir Sharafat
I - B

PROJECTS

SMART DUSTBIN

*(by Sheghu Rahmathullah A, Mohamed Hassif .Y,
Mohamed Fairoz Alam. Z, Mohamed Thajmeel. S)*

Objective:

In this Corona pandemic, everything must be contactless, so we tried to make a Contactless Dustbin called Smart Dustbin.

Introduction :

This Smart Dustbin senses the person or object using Ultrasonic Sensor which send the message to Servo Motor using Arduino Uno.

When the person Comes closer to Smart Dustbin then the Dustbin Cap will automatically open for your waste and after some time it will automatically Close. It also indicates the moisture level of the wastage/trash.

For example, if wet wastages get accumulated in the garbage bacteria will be formed so to avoid that we use moisture sensor to indicate the level of wet wastages.

Working :

It is important to dispose of trash properly. It is a responsibility with which everyone should comply. In the era of Covid-19, people are trying to innovate on an everyday basis and make things as contactless as possible. The smart dustbin is one of those innovative ideas.

The smart dustbin uses an Ultrasonic sensor HC-SR04 to detect objects in front.

It then sends the signals to Arduino Uno. The Arduino understands the signal and sends a signal to the Servomotor which opens the flap on top of the dustbin.

And moisture level indicator in the circuit is to show the level of wet waste that is induced in the dustbin.

Green light for Normal, Yellow light for Warning.

Role of Signal Processing :

HC-SR04 is an ultrasonic distance sensor used for measuring the distance at which an object is located. The principle used by this sensor is called SONAR. It is perfect for small robotics projects such as obstacle avoiding robots, distance measuring devices etc. It has two parts; one emits the ultrasound sonar to measure the distance to an object. The other part is the receiver which listens for the echo. As soon as the ultrasound hits the object it bounces back and is detected by the receiver. The time taken for the wave to come back decides the distance of the object being measured.

Ultrasonic transducers operate at frequencies in the range of 30–500 kHz.

Advantages :

A reduction in the number of waste collections needed by up to 80%resulting in less manpower, emissions, fuel use and traffic congestion. A reduction in the number of waste bins is needed. Maintain environment hygiene (i.e. no overflowing of waste and less unpleasant odour). It will help in bringing evolution through technology in terms of cleanliness.

Conclusion:

A simple but useful project called Smart Dustbin using Arduino is designed and developed here. Using this project, the lid of the dustbin stays closed, so that waste is not exposed (to avoid flies and mosquitos) and when you want to dispose any waste, it will automatically open the lid. And it shows the moisture level of the dustbin.

RF JOBS

- RF ENGINEER
- RF TEST ENGINEER
- RF PLANNING AND OPTIMIZATION ENGINEER
- RF ANALOG IC DESIGN ENGINEER
- RF SYSTEM ENGINEER
- EMI/EMC TEST ENGINEER

- APPLICATION ENGINEER IN - ANTENNA DESIGN, AEROSPACE, RADAR, ANALOG/MIXED SIGNAL IC DESIGN

JOB OPPORTUNITIES IN RF DOMAIN

RF ENGINEER

The RF Engineers are the professional experts known within the electrical engineering arena of IT and Telecom sector. They are also called Radio Frequency Engineer. Usually, engineers work with gadgets that send or receive radio waves, with wireless devices, radios, and mobile phones. All kinds of communication run through radio waves, whether it is wireless or mobile devices, guided by RF engineer.
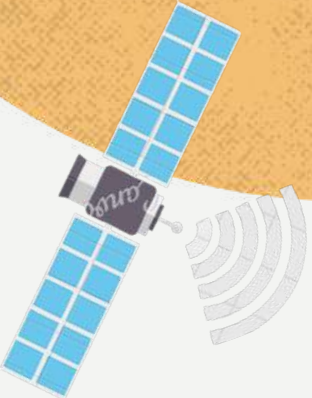
Ensure Regulatory Standards are met

To Design new Wireless Networks RF Plans

Analyze Device and Classify Areas for Enhancement

Interconnect Data Using Digital Software

Enhance the Performance of Present Wireless Networks

CRES ECE MINDS

JOB OPPORTUNITIES IN VLSI

Career opportunities in the VLSI:

- AMS (Analog Mixed Signal) designer
- AMS verification engineer
- Layout design engineer
- ASIC front-end designer
- ASIC verification engineer
- Physical design engineer
- DFT engineer
- Application engineer technical support
- Board validation engineer
- Corporate Application Engineer (CAE)
- EDA/CAD engineer
- EDA tool validation engineer
- Fab/Foundry Engineer
- Field Application Engineer (FAE)
- FPGA Back-end verification engineer
- Front-end verification engineer
- IP design engineer Verification Engineers
- IP verification engineer
- Library developer
- The physical design verification engineer
- Product Application Engineer (PAE)
- Reliability Engineer

VLSI:
Very large-scale integration (VLSI) is the process of integrating or embedding hundreds of thousands of transistors on a single silicon semiconductor microchip. VLSI technology was conceived in the late 1970s when advanced level computer processor microchips were under development.
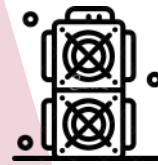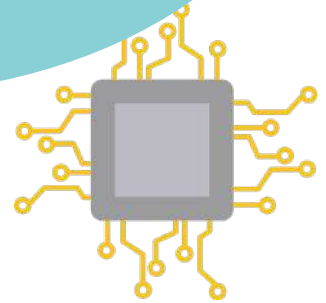
ASIC VERIFICATION ENGINEER: as a ASIC verification engineer, your responsibility to validate IPs and sub blocks of RTL code used in designing ASIC or SoC.
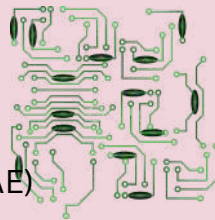
LAYOUT ENGINEER : Designing the layout of digital and analog circuits of a chip. E.g., the design of oscillators, references, ADCs, DACs, PLLs, power management modules.
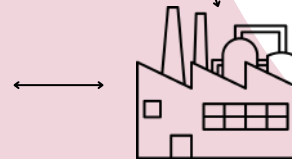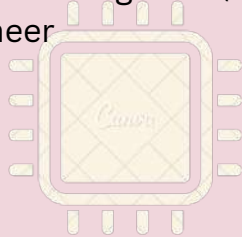
**Industry Opportunities**

PHYSICAL DESIGN ENGINEER: as a physical design engineer, you are responsible for physical design of complex digital circuits such as ASICs and SoCs or sub-blocks.
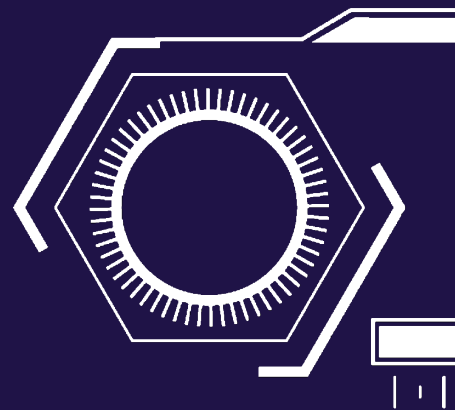
TEST ENGINEER: You will be working on designs to test for noise, speed, and general performance. Your duty is to ensure that every design meets the required specification and standard.

CRES ECE MINDS
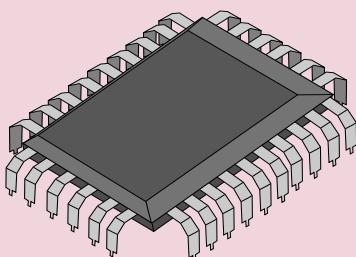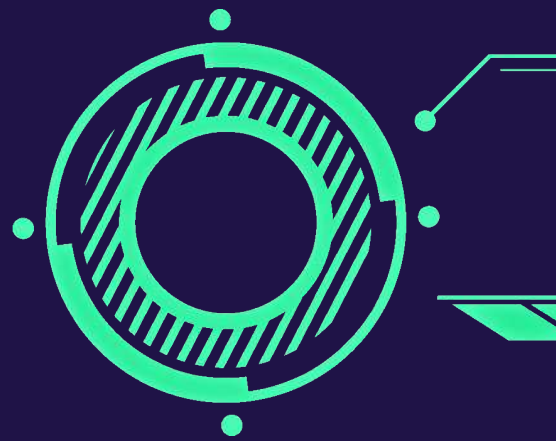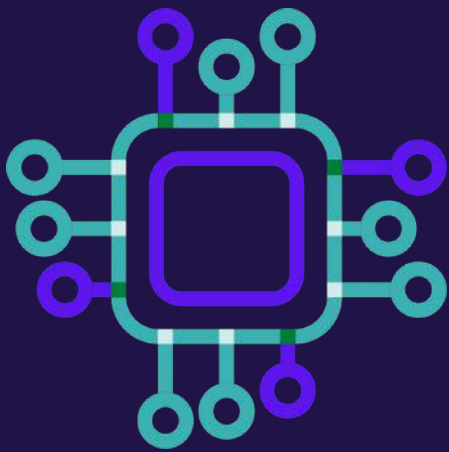
GEEK UPDATES
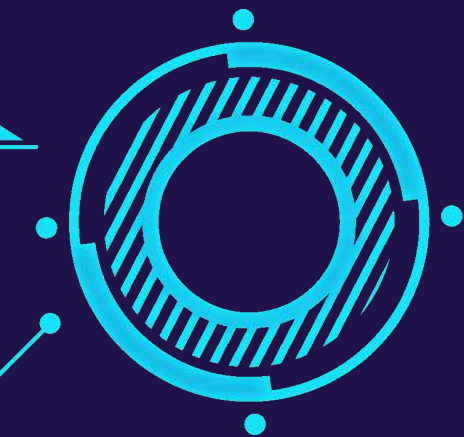
Electronic Control Unit - Tag 320 *- Mohammed Aamir Khan Lodi - (II - B)*

One of the most crucial components that racing car manufacturers employ to activate their vehicles and give direct ignition control is the Electronic Control Unit Tag-320B. The company " MCLAREN Electronics" manufactures the TAG-320B, which is intended for client applications using a 32-bit microprocessor. A number of well know programs, including MATLAB/Simulink, were used to implement the control modules for this device. It is still in use today and has been since 2005. The term "ECU" stands for this device's common name.

Augumented Reality *- Keerthana S (II-A)*

I firmly believe in the theory of a particular technology that enables the presentation of pictures and digital data in actual space. In order for users to encounter generated information in an actual context, digital information must be integrated into the user environment in real-time. It succeeds in combining digital and three-dimensional (3D) elements with a unique sense of reality. The first yellow marker, which started to appear in television football in 1998, was one of the first commercial uses of AR technology.

Multi Cloud *- Shameel Ahamed M (III Year)*

Multi-cloud If you abbreviate them, you will get multi, which stands for a variety of things, and cloud, which stands for cloud computing.

In order to increase efficiency and gather as much data as possible, cloud computing is the supply of computer services such as servers, storage, networking, and intelligence through the internet.

In order to increase the capabilities and cost of cloud infrastructure, multi-cloud refers to the usage of numerous cloud computing and storage services from various providers.

ADAS
Advanced Driver Assistance Systems- Fadhl Ur Rahman(IV year)

Over the years, Automotive Electronic played a major role in development of automotive vehicles. ADAS is one of the many automotive technologies that has significantly improved the control and interaction with vehicle.

ADAS Tech feature offers Adaptive Cruise Control, Reverse Brake Assist, Blind-Spot Alert, Cross-Traffic Alerts, lane departure warning, Night Vision, Forward Collision Warning/Avoidance and Cross-Traffic Alerts.
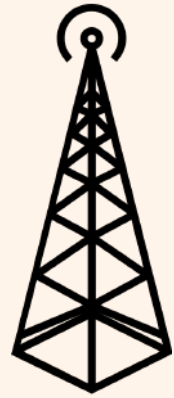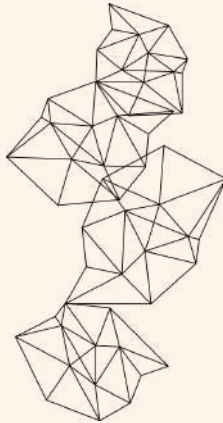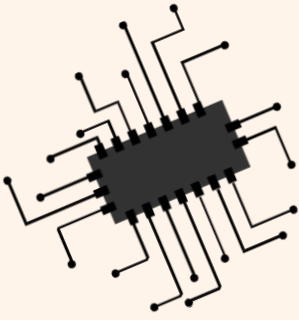
What's Buzzing!!!
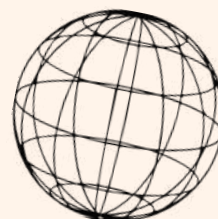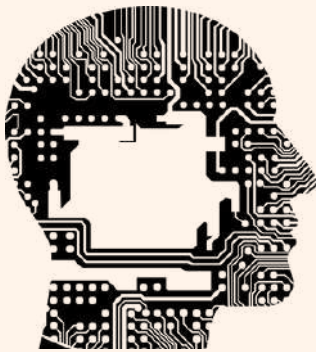
5G IN INDIA: PRESENT AND FUTURE

After a long wait, India is ready to witness the dawn of 5G services which might help with different possibilities while improving the country's position in the information technology field. According to Ashwini Vaishnav, the Union Communications, Electronics, and Information Technology minister, telecom providers have been preparing for a seamless 5G service rollout across states by October. Reliance Jio 5G network is available in Mumbai, Delhi, Kolkata, and Varanasi. The telecom provider plans to spread the network throughout the country by December 2023.

As per the estimates, 5G has the potential to create an economic impact of $1 trillion in India by 2035. Implementation of 5G and related technologies will help drive digital transformation to achieve the goal of connectivity. As per estimates, 5G connections in India are expected to reach nearly 369 million subscribers by 2026 The numbers may vary across market reports but strong demand for 5G in India remains the bottom line. India's government-owned service provider, Bharat Sanchar Nigam Limited (BSNL) plans to launch 5G services by August 2023. The service provider is yet to launch 4G services, so there will be hardly any gap between the introduction of BSNL's 4G and 5G services.

. Reliance Jio says the fact that its Jio True 5G is powered by Jio Platform's 5G technology - built indigenously by Indian engineers at Jio. They are investing around $19.5 billion in building 5G networks by 2025, according to a recent GSMA report. Over the next few months, the service providers will be expanding the services in newer areas and introducing new use cases. All in all, exciting times are ahead for the Indian telecom industry!

5GPRICING

While both Airtel and Jio have not revealed the 5G prices, the indications are that they will not be charging a premium for 5G services. Airtel's services are available at 4G rates and don't require a SIM change. Jio's Akash Ambani, Chairman, of Reliance Jio, said that 5G should be available to "every citizen, every home, and every business across India," it is clear that Jio's 5G pricing strategy will be similar to its 4G strategy and will focus on keeping the services affordable for common people. Jio could possibly set the tone and ensure that Airtel and Vodafone Idea also keep the 5G tariffs economical to prevent churn of their subscriber base

VENKATESH III

SEMICONDUCTOR SHORTAGE

What purpose do semiconductor chips serve?

- The foundation of modern technology is comprised of semiconductors. For instance, semiconductor chips are used extensively in a variety of products, including (a) computers and laptops; (b) phones, mobile devices, and other electronic gadgets; The devices are more powerful, less expensive, and more compact thanks to semiconductors.
- The greatest scientific advances in the world will still be made possible by semiconductors. Industries as diverse as consumer electronics and aerospace to energy and medical have already been changed by them.
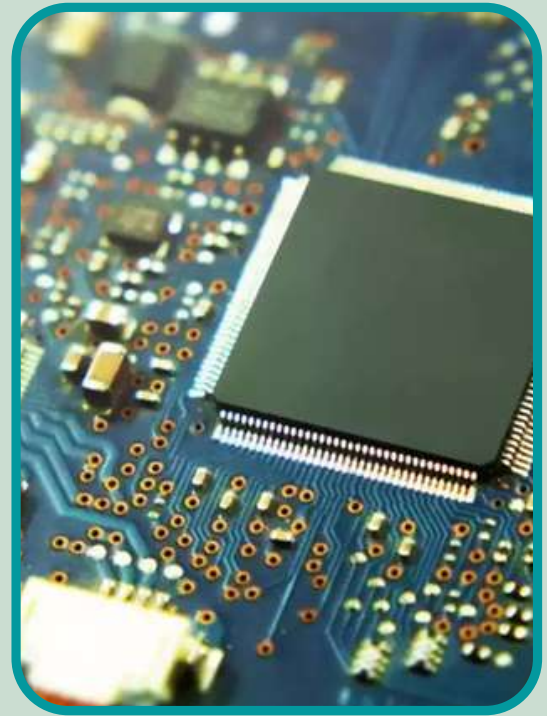
How is the global semiconductor manufacturing industry now organized?

- Manufacturing of semiconductors involves both front-end fab production and back-end assembly, which includes packaging and testing. This entire value chain is interdependent with a small number of nations, including the USA, Taiwan, Japan, China, and several European countries.
- Taiwan Semiconductor Manufacturing Company (TSMC) in Taiwan and Samsung Electronics in South Korea currently control the semiconductor manufacturing industry.
- Large corporations like Apple and Qualcomm design their own ARM-based chips, but they contract out their production to businesses like TSMC, the biggest semiconductor contract manufacturer in the world. Chip manufacture is also heavily influenced by American companies like Intel.

How severe is the current shortage of semiconductors?

- Numerous businesses have indeed been impacted by the worldwide semiconductor shortage for more than a year. Both the cost of chips and the wait times have increased due to the shortage.
- All industries have been influenced by this in terms of their outputs. Mobile phones, desktop computers, video game consoles, cars, and medical equipment have all been impacted by scarcity.
- Toyota, a Japanese carmaker, recently reduced its April through June global production target by 100,000 to 7,50,000 vehicles in May 2022. Similarly to this, Apple reported losing US$ 6 billion due to a semiconductor shortage in the previous quarter in October 2021.

What causes the current shortage of semiconductors worldwide?

- Adoption of 5G technology : Companies that make semiconductors have been preparing to scale up their capability for manufacturing the sophisticated chips needed for 5G technology. Older chip systems' manufacturing was already being reduced. The epidemic and the broken supply chain made this shortage worse.
- Complex manufacturing systems: every segment of electronics manufacturing involves around 25 nations in the direct supply chain and 23 countries in supplementary activities. As a result, when the pandemic struck the entire world, the industry was unable to make enough chips.
- The conflict between Russia and Ukraine: Due to Russia's invasion of Ukraine, exports of crucial materials used to create chip sets have been hampered.
- Manufacturing Procedures: Many chip-using manufacturing companies, particularly those in the automotive industry, maintain a minimal stock of semiconductor chips.

What is India's record in the semiconductor industry?

- Majority of the world's semiconductor companies have an R&D presence in India
- design and verification of semiconductor chips are done .
- However, imports all of its processors, memory, and displays. India imported electronic goods worth $15 billion in 2020, 37% of which came from China.
- India has two fabrication facilities: Chandigarh's semiconductor lab and Bengaluru's SITAR,
- These produce silicon chips for military and space applications, not for commercial usage.

What's coming up?

- The CHIPS for America Act (US$ 52 billion) and the European Chips Act (€ 45 billion) would provide incentives for fab manufacturers to locate their facilities in these areas and balance.
- The Indian government ought to encourage companies to purchase semiconductor production facilities elsewhere.
- Sufficient financing from the government is needed to improve technical institutes' capacity for research and development.
- To conclude, in order to increase the production of semiconductors, nations must work together and cooperate. They are among the most essential tools of the twenty-first century, and it is difficult to envisage modern life without them.

Asmaa Areef
II-A
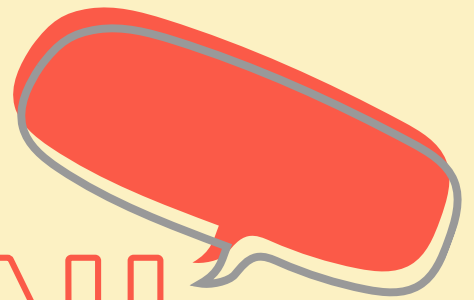
ALUMNI INTERVIEW

MR.IMADDUDEEN V.N

(Senior system engineer at zf commercial vehicle control systems, Batch 2013-2017)

"Please introduce yourself and then tell us about your current role in the company, in which you're working".

"I would like to thank Almighty for this wonderful opportunity. it's great pleasure to attend this interview, and thanks to the organizers for organizing this. I am Imaddudeen, I'm working as a senior system engineer at ZF which was earlier known as WABCO. In my current role, I am acting as an innovation project leader for a project based on the connectivity solutions provided to the threats and the defect, especially if you look at the predictive diagnostic solutions for the threats and the defects, so that was my current project field. Before this, I was working on IoT hardware called a telematics device for threats and defects, it's responsible for sending device-related information from the vehicle to the cloud platforms".

How do you describe your journey in Crescent?

"To put it in a single line, It was a blessing for me. I had a family kind of bonding in crescent during my bachelor's and higher studies too. The reason why I say so is that you won't find academic freedom in many universities as you do in crescent. If you have an idea and propose it to them, they will never discourage you even if it sounds crazy. They will support you till the very end, till the point you make your idea into a project or product. This is very important for any student. The confidence and logical thinking skills that one develops are much needed, companies expect such skills. I acted as my class representative and also I was the joint secretary for Hobby Electronics Club".

What is your best memory in crescent with your friends and faculties?

"If I start with the memories this interview will be extended for one full day. Some cherished memories would be those group studies we had during CAT exams. I was a Day scholar and used to travel on the college bus, six of my classmates were also on the same bus. I used to study on the day of the CAT exam, and would have a lot of fun-filled group studies on the bus! And during the intervals in the morning, we would get bread omelets from the banyan tree canteen, it would be such a hassle to get those bread omelets amongst the crowds. Apart from these, we had this Open house exhibition, which was like a "Tech-Carnival", with a lot of projects being put out for exhibit. We had a lot of interaction with the other department students during this open house exhibition, even though we are from ECE. In that open house exhibition, we would present the project as a team and when you present as a team the work won't just compromise building circuits or soldering PCBs, it would also involve work from other departments. For example, to build a prototype we would require a for our project, and for that, we would need help from the mechanical department, you get the picture, it gave me end-to-end product development experience, starting from mechanical, civil and electrical. It was a very fun-filled learning experience ".

Was ECE an accident?

"To be honest, Yes. I first went for MBBS counselling, and I was short of two marks there in the counselling. then I came for an engineering admission at Crescent, initially for mechanical engineering, because I was not sure at that time, what to choose or which department is better than the other. You could imagine the mind of a class 12 student, I was totally confused. At the last moment, one of my relatives told me to opt for ECE so that I can go for the core jobs as well as the IT jobs. So I took ECE. Alhamdulillah, no regrets about the decision".

Did you imagine doing PhD in Crescent while you were doing your undergraduate studies?

"Nope, I did not even think of going for a master's during my UG, so PhD was a very distant thought. I completed my bachelor's in 2017 and my master's in 2019. during my master's in my second year, I got an internship opportunity at WABCO which is now known as ZF. I was placed in a team which used to be focusing on research and development. we used to do a lot of new innovative research there, and especially now, the industry is moving towards data analysis. IoT has become a de facto parameter in every system unlike three to five years back, whatever system. people want it to be connected, They want to see their data, and they want to control their devices, from anywhere in the world, Using this IoT, we are getting the data from all the devices and sensors to the cloud.

What I have said applies to every industry not only the automotive industry, Every industry is now looking for a predictive diagnostic solution, to predict the possibility of happening of a particular event. Now that data has become a very key part, parallelly the importance of data protection is getting increased as the threat to the data is also increasing.

The domain I am currently working in is also dealing with data analysis and cyber security for truck and vehicle data. So I thought that I need to do a PhD either in data analysis or in cyber security. And I opted for cyber security because like this will be applied in any field. After my master's, I felt the need to get some experience in the industry before going for a PhD. I took two years gap between my master's and PhD. so that I could get to know how the industry works and which field or domain I need to focus on. I currently working and doing my PhD in parallel ".

Advice for our young budding ECE Engineers?

"I would like to give a few suggestions from an industrial standpoint. Nowadays industries are looking for an all-rounder and a logical thinker. For example, two decades ago, there were only very few programming languages. But now that trend is totally different. If you see today, there are like hundreds of programming languages and even day by day, new programming languages are coming, right? So it is not possible for a human to know all this syntax and all the attributes of all the programming languages. And the industry is also not looking for something like that. Rather, what the industry is looking for in the person needs to have logical thinking. For example, if we give a problem and ask him to find a solution, he should be able to think logically and solve that problem. Once you have logical thinking to solve whatever problem you are given and you are able to join the dots properly, then you are good to be in an industry. And Apart from that, I would also like to say to budding engineers, don't be afraid to learn new things. Whether it's a new hardware or software tool.

You cannot become a complete engineer until you burn a few ICs or corrupt a few lines of code. You have access to a lot of tutorials and other source materials available on the internet. And Finally like whatever you do You must have the fear of the almighty, gratitude and respect for your parents and teachers. There is a famous saying, **A tree when it has no fruit to offer remains erect. But when the trees are laden with fruit, it bends down.** So if you even have a bit of pride or ego, then nobody will be able to get anything worthwhile from you. When you have genuine humility and gratitude, it is a sign that you have something to offer to society".

MR.Zeeshan Kangasani

(Program Delivery Lead at Westpac, Batch 2003-2007)

Could you introduce yourself and your current role in the company?

I graduated from BSA Crescent in 2007. (At that time, the university was called Crescent Engineering College and affiliated with Anna University). I now work as a Program Delivery lead at Westpac (Australia's first bank) supporting integrated technology solutions like big data & data warehousing for strategic business purposes and advanced analytics.

Why did you choose ECE?

I always had a curious mind. When I was young around 7-8 years old (or as early as I can remember), I would use my Dad's toolbox and dismantle things at home like my video games, pocket calculators, VCR etc. So I was always interested in electronics. And when Nokia revolutionised mobile phones, learning about communication technology and satellites was the most sought-after thing. So this is why I chose to study ECE.

Some of your best memories in crescent?

It was during our time at Crescent, that the main auditorium was built. We had the best time planning cultural events, ECE events & other numerous events. I remember being the joint secretary within the core planning committee that managed the ECE cultural events from planning , funding (raising sponsors), and execution. I also helped the committee organise numerous industrial visits. We also threw a grand farewell to our 2006 batch ECE seniors with great fun and frolic.

Your journey after completing your graduation at crescent and early working life?

During our 8th semester, one of the UK's largest banks, Standard Chartered Bank hired me as a graduate engineer to work within their IT team operations from Chennai. I rate my experience there as some of the best years of my career. Learnt many things about IT operations from my seniors who were very supportive throughout my journey from being a young graduate fresh out of university to be a senior IT consultant. After which I joined an international consultancy firm which took me to places like UAE, USA & Australia. After arriving in Australia many years ago, I now call Australia home.

Any advice for budding engineers?

Stay original! Don't easily get influenced by others. Find out what interests you the most and pursue it. Lastly, explore the world, stay healthy, maintain physical well being & invest early.

COFFEE WITH FACULTY
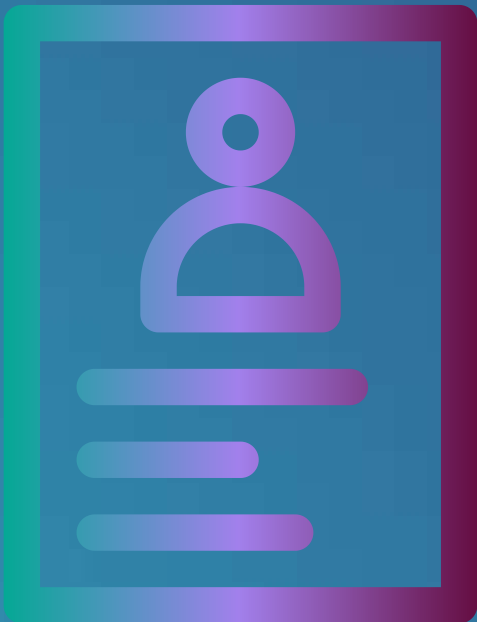
MS. G.ANURADHA

(Assistant Professor(Sr. Gr.),ECE)

Could you please tell About yourself?

I completed my Engineering in ECE at Periar Maniammai Institute of Science and Technology at Thanjavur in 1995. I completed my M. Tech in Embedded systems and technology at Anna University in 2008 and Currently pursuing my PhD in signal processing. I love to learn new things and I'm doing that every day. I chose masters in Embedded systems as I already Have been knowing other technologies better than that, so I want to learn a new technology. I took a break after UG and Again Pursued My PG and later Joined to teach, then out of eagerness to learn I chose to do PhD.

Did you always wish to be a Professor, if so, why?

Yes, from the very beginning of my career I wanted to be a professor, By being a professor, I believed I could learn a lot and spread knowledge to my students. Being a teacher is a passion to me since my childhood. Through teaching, I had the opportunity to learn something back from my students every day.

How would you describe your working experience in crescent ?

Rather than the working experience, I would like to say it is a "learning experience". I would be completing my 12 years as a professor this December. Its been Always that I have learned from students, Higher officials, bus drivers, non-teaching staff and with everyone who has been part of my Crescent life, I also say that the students to do the same as it can help us later.

Learning or Teaching engineering, which one you felt is best?

I would say learning engineering is best. As Technology is growing every day, new updates come and we have the opportunity to be part of it. Engineering is for you if you are interested in developing technology to improve the quality of life and provide solutions.

What are the challenges faced by Engineering professors?

I don't see them as a challenge or difficulty, rather I see them as "Opportunities ". An opportunity to learn something new, an opportunity to grow and move out of one's comfort zone. So always learn from whatever is available.

Which is Best project you did with students?

All the projects, which are students have done are good. I cannot pick a single project as the best, Since every project has its own relevance. Every project provides a solution for a different problem. Sometimes even if the problem statement is the same, students have come up with different solutions to solve the same problem.

What is the reason for your calmness?

The reason that I am a calm person is that I try to learn from others and correct myself, then teach others. When a person tries to understand oneself and others around them and also understand what God has blessed, it will make him humble. this humility, in turn, would make you a calm person and you would love everyone around you

How should one develop an interest in learning and why ?

We should understand everything and start learning. We must learn for Serving ourselves and serving others. We can develop interest by knowing what is our need and understand those things and learning to implement them.

Which is your favorite quote ?

"எல்லாம் அருள் பேர் ஆற்றல்"-Everything is God and his way to our life

What is your favorite book?

VAZHKAI MAZHARGAL-வாழ்க்கை மலர்கள்-By Maharishi is my favorite book as each chapter teaches us important lessons of life.

Any advice to the students ?

First, Try to learn as much as possible from this world. When it comes to learning, let go of your ego, and learn from different people, the person could be someone in a higher position to you, like a Professor or an Authority, or else could be someone lower in position, like your juniors. But still, those people may teach you something which you may not know. And Second, reduce the amount of time you spend on social media, use your time wisely to contribute something to the world we live in.

MOVIE BREAKDOWN

POPCORN

TICKET

12345

12345
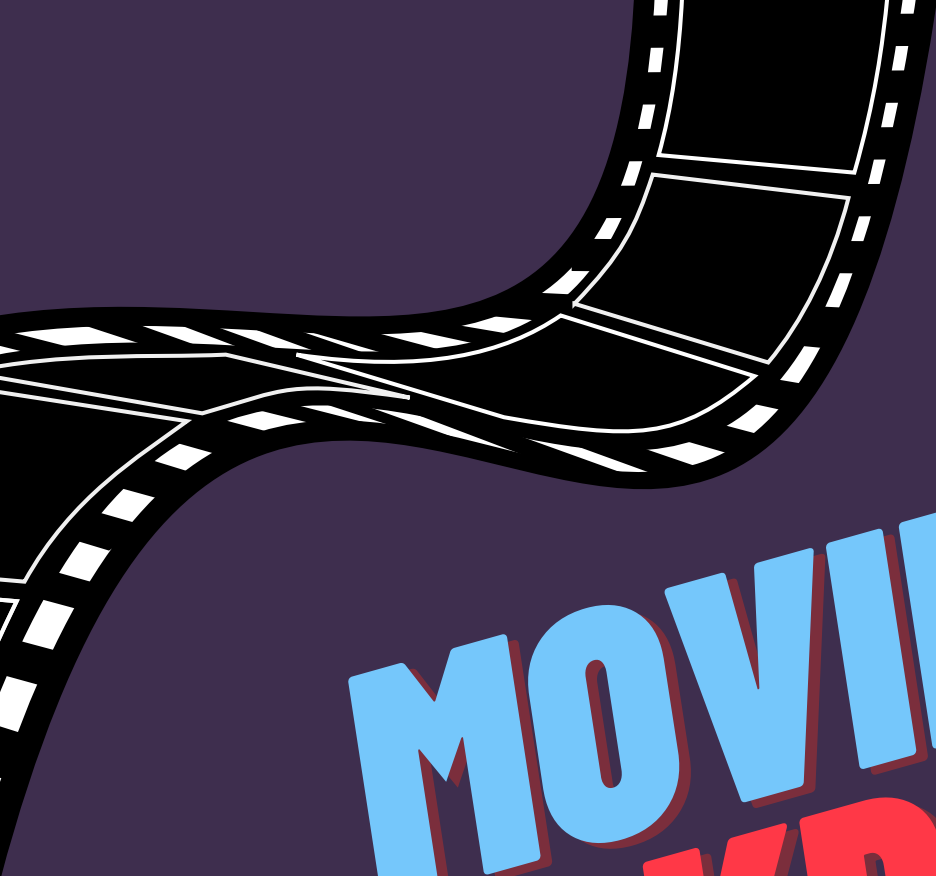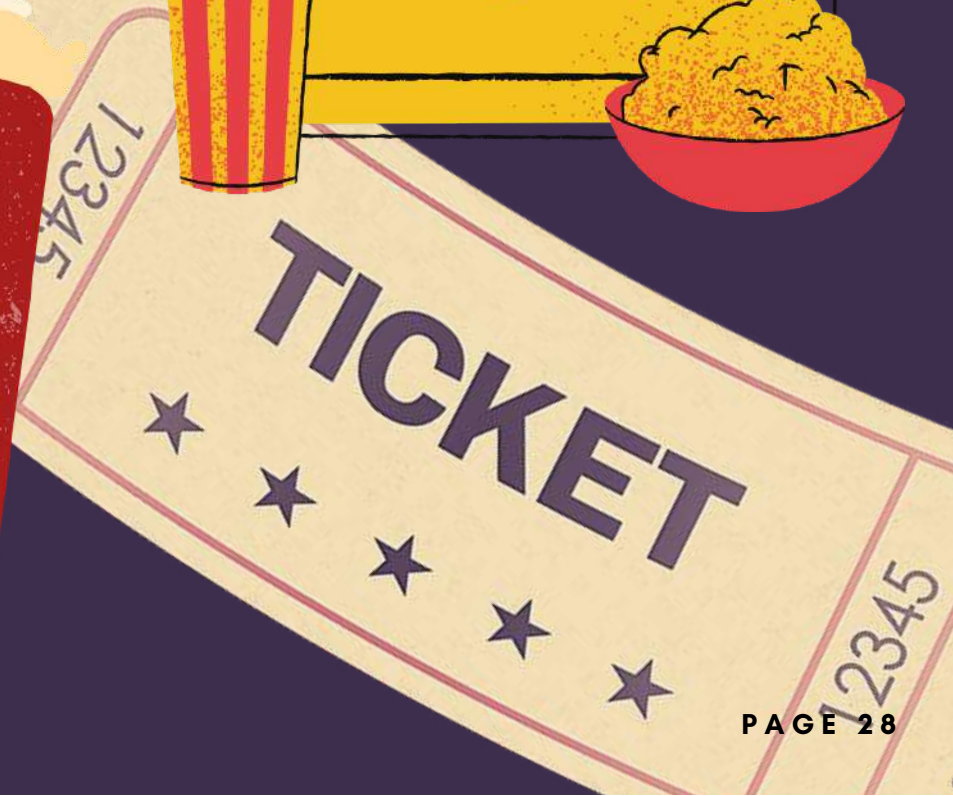
DUNE

Dune is the first instalment in a two-part adaptation of Frank Herbert's 1965 novel directed by Denis Villeneuve. The film follows Paul Atreides as his family is dragged into a struggle for Arrakis. Timothée Chalamet, Rebecca Ferguson, Oscar Isaac, Josh Brolin, Stellan Skarsgård, Dave Bautista,Zendaya, are among the ensemble cast members.

Dune was shot digitally (on the ARRI ALEXA LF and Mini LF cameras), and then transferred to 35 mm film before being converted back into digital. As a result, the movie you're seeing in the theatre has been emulated. It evolved from a revolutionary technique used for the first time in a commercial feature. "It was a lengthy process that had never been done before in commercial films." However, it gave us the impression that we had been visualising a specific texture that is painterly but feels ageless. The film has softened the digital's edges. It provided something that film acquisition could not.

One of the most important features of the filmmaking was the installation of special 'sandscreens' in the Budapest filming location in place of what would typically be bluescreens or greenscreens.

The sandscreens helped the actors and filmmakers keep the desert setting feel, avoided bluescreen spill, and had the added benefit of actually possessing bluescreen-like keying capabilities once inverted as a negative image. When streaming has increased the hunger for content and production has become extremely technical, the Oscar-nominated blockbuster Dune is an amazing example of the abilities that can provide a route into the film industry for a larger spectrum of people.

S. SHADIR SHARAFAT
I - B

DEVS

Devs is a Sci-Fi limited series written and directed by Alex Garland starring Sonoya Mizuno, Allison Pill, Nick Offerman, Cailee Spaeney, and Karl Glusman.

The plot revolves around Lily Chan, a computer engineer, who suspects Amaya, a computing firm, of being involved in her boyfriend's disappearance. Resultantly, she sets out to investigate its CEO and find out the truth.

The series starts like your average mystery thriller in the first episode. But when the mystery surrounding the tech that the Amaya Corporation is working on, is revealed the plot takes a wild turn toward the Sci-Fi Genre. The entire series is beautifully shot and the hypnotic background score also makes the experience unnerving. This show needs the attention of the viewer for the entirety of its run time as the concepts introduced in the latter episodes can literally melt your brain!

The main concepts covered in this show are Quantum Computing and Existentialism. The tech developed by Amaya can be used to predict the future by applying Quantum Mechanics.

Quantum Mechanics is a science which is used to deal with the universe at a sub-atomic level. It's not completely explored yet. The Quantum Universe freaky place where the laws of science don't work properly as it does in our world.

If we can control the quantum world and its properties, then we can create Quantum Computers that are capable of carrying out millions of calculations in a second. This could mean that there is a possibility that we can even predict the future using Quantum Computers. Currently, Google and IBM are working hard to make it possible. Watch this show to uncover all the mysteries of the Quantum Universe along with Lily!

S,R, PARVEZ RISWAN MOHAMED
IV - B

EVERYTHING EVERYWHERE ALL AT ONCE

Everything Everywhere All at Once is a 2022 American absurdist comedy-drama film with a runtime of 140 minutes written and directed by Daniel Kwan and Daniel Scheinert (Collectively known as "Daniels"), who produced it with the Russo Brothers.

The plot centers on a Chinese American immigrant Evelyn Quan Wang, being audited by IRS for the fraud she learns how to jump her consciousness through the multiverse to defeat A greater evil trying to kill her in all the other universes.

The plot divides into three parts showing the character development of the main character Evelyn during the timeline of the plot. At first Waymond Wang from the alpha universe which is the primary universe, travels to the main character Evelyn wang's universe to warn Evelyn about a greater threat which is killing Evelyn from other universes the god-like being 'JOBU TUPAKI'.

After watching this film, we can understand how to face the world without turning back to see the past which we regret accepting. With the simple but impressive way of life "Whatever happens to us by anyone's mistake we should always be kind and treat them with kindness"

The VFX crew of the movie used CG extensively along with real-life rendering models, particularly when they introduce 'Bagel of Doom', they used real-life lighting and a render of the bagel with the lighting the way they wanted it to be, and everything else was done in 2D and After Effects. So, it was just all composite.

Bhuvanesh .S
I - A

CONFESSIONS

We asked our students questions on life, and here are some of their honest responses!
Have fun reading it

Stop caring about what others speaks about you!

Go to gym, dont hurt anyone either by words or actions, stop being shy

You really were too naive.

please studyy!

What would you say to your younger self ?

You did your best. I'm proud of you

Play more outdoor games and make new friends.

Be productive and don't Procrastinate things

Travel a lot and stop forcing connections

Grab the opportunity don't wait till it comes near you

Getting rejected

Losing people I love and trust

Not getting a job

My life not being meaningfu l

losing one of my friends

Your biggest fear ?

Uncertainty about my future

Oh damn you don't wanna go there

GETTING MORE KNOWLEDGE ON ELECTRONICS

TO HAVE MY OWN STARTUP!

CONTRIBUTE SOMETHING TO THE SOCIETY.

What do you expect from yourself at the end of your 4th year?

TO BECOME A ENGINEER! NOT JUST A GRADUATE.

To become a confident person!

Get a job!

GET PLACED AT A GOOD COMPANY

To become a skilled Engineer

To be Self - independent!

GAME TURBO

PLAY

```
S E T S B M E I D P K I Q A U N K D Y P A R V R
O T I G S J E N E L A A K Z B G L X Y A E O P L
A Y R E K A E R B T I U C R I C B X W J R C T O X
D L C G F C Q E T J Y V R B L W N T Z A L C M E U
S O L M V K A B X M T S W E C L P O B L N U E G
Z R I G R E S I S T A N C E S W R X C L E D R Q
C T H E I N H E L E C T R O N I J S Q E V N V M
R C O N P Z Z T L O V E X K A T S A V L Y O K N
S E K E J A S Y H U G D Y G P D B T C N M C E U
T L D R S C R Z U E R E P M A V J S O C R L Z S
I E A A D E E F C T Y O X O U Z M R O R M F J W
U Z O T M N I U Z C C G T L X U M O W U P C S P
C A L O X A R R K Q Y Q W S B D E T T R C H G E
R H B R H R M V E I H L M T C F S A L K O Q X S
I M D V E J P M Z S D Z H K U R E L G R N S D U
C M N N H X I E E J K T O X C U V U T L F E J F
P T T C P N R V J T G S Z W G L D S U Y E B P D
W V P O R C U M V R E Z O R X C H N D V S V L O
O A A O E G A T L O V R O D E K U I K G B J U G
H J L B D I R E C T C U R R E N T R U B Z F G K
B Q W S A Z R F T C N T C D J V X T H U M A X B
I R U L M I U O A D L E I L C R G Q E A R R F H
S X O P A H A L T E R N A T I N G C U R R E N T
E I E D Z H O B Z L B D X K V J V H G J M L D P
```

Alternating Current	Ammeter	Ampere	Circuit
Circuit Breaker	Conductor	Current	Direct Current
Electrolyte	Electron	Fuse	Generator
Ground	Insulator	Load	Ohm
Ohm's Law	Open	Parallel	Power
Resistance	Resistor	Series	Short
Volt	Voltage		

SEARCH IT, SO THAT YOU WILL GET IT!

CROSS *Word*

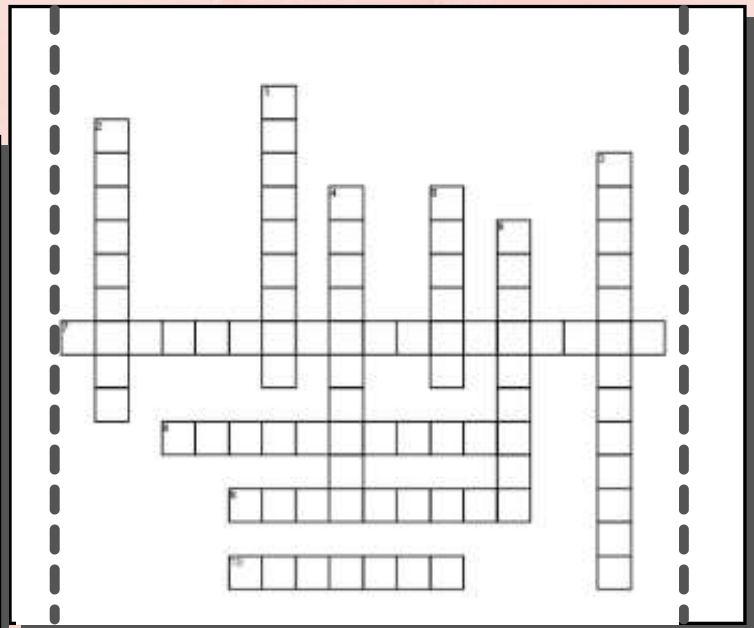## Clue

Across

7. Semiconductor with excess of electrons.
8. Type of impurity in n-type semiconductor.
9. N-P-N transistor acts as an
....
10. Process of applying suitable D.C. voltage to the P-N junction diode.

Down

1. P-N junction diode used in.....................
2. The material which has no gap.
3. The material which has energy gap around 1 eV.
4. Energy level corresponding to the average energy of electrons and holes.
5. The process of adding impurity.
6. The material which has large energy gap.

1)Rectifier 2)conductor 3)semiconductor 4)Fermi level 5)doping 6)insulator 7)ntypesemiconductor 8)pentavalent 9)amplifier 10)biasing

QUIZ TIME !

&

1. In a parallel resonant circuit, the circuit current at resonance is maximum.
   A. True
   B. False

2. For attenuation of high frequencies we should use_____

   A. Shunt capacitance   B. Series capacitance   C. Inductance   D. Resistance

3. Match the following:

Microwave Measuring Instruments	Measurements Effected
A. BoIometer	1 . Reflection coefficients
B.VSWR meter	2.HaIf power beam widths
C. Cavity wave meter	3.Microwave power
D. Pattern recorder	4. Microwave frequency

   Options:

   A. A-2, B-l , C-4, D 3
   B. A-3, B-1, C-4, D 2
   C. A-2, B-4, C-1, D 3
   D. A-3, B-4, C-1, D 2

4. Assertion (A): Free space does not interfere with normal radiation and propagation of radio waves
   Reason (R): Free space has no magnetic or gravitational fields.

   A. Both A and R are correct and R is the correct explanation of A
   B. Both A and R are correct but R is not the correct explanation of A
   C. A is correct but R is wrong
   D. A is wrong but R is correct

5. Match the following:

A.Horn antenna	1 . High directivity
B.ParaboIic antenna	2. Very high directivity
C.Lens antenna	3. Moderate directivity

   Options:
   A. A-I, B-2, C-3   B. A-3, B-2, C-1   C. A-3, 8-1, C-2   D. A-I, B-3, C-2

6. Assertion (A): A PN junction has high resistance in the reverse direction.
   Reason (R): When a reverse bias is applied to the PN junction, the width of the depletion layer increases.

   A.Both A and R are true and R is correct explanation of A
   B.Both A and R are true but R is not a correct explanation of A
   C.A is true but R is false
   D.A is false but R is true

7.Radiation resistance of an antenna is 54 Q and loss resistance is 6 Q. If antenna has power gain of 1 0, then directivity is:
                    A. 9   B. 11.11   C. data not sufficient   D. 10

8. Who launched the Crew-5 mission of NASA?

   A.ISRO   B.DRDO   C. TesIa   D. SpaceX

9. Which company has unveiled a breakthrough in semiconductor design and process with the development of the world's first chip announced with 2-nanometer nanosheet technology?

   A. TCS   B.Wipro   C.IBM   D.HCL

10. Which company has partnered with the Indian government to roll out a vaccine finder tool on its mobile app in India to get vaccinated?

    A. Google   B. Microsoft   C. Amazon   D. Facebook

11. Which Indian telecom company has rolled out the world's first satellite-based narrowband-IoT network?
    A. Jio Networks   B.BSNL   C.Airtel   D.Vi

12. Which organization has developed solar-based water sprayers to be used in agricultural fields?

    A. ICAR   B.DRDO   C.CSIR   D.HAL

13. A stepper motor is _____

    A. a two-phase induction motor
    B. is a kind of rotating amplifier
    C.is an electromagnetic transducer used to convert an angular position of the shaft into electrical signal
    D.is an electromechanical device that actuates a train of step angular movements in response to a train of input pulses on one to one basis

14. Refractive index of glass is 1 .5. Find the wavelength of a beam of light with a frequency of 1014 Hz in the glass. Assume the velocity of light is 3 x 1 08 m/sec in a vacuum.

    A.4 pm   B.3 pm   C.2 pm   D. 1 pm

15. Match the following:

    A.MuItiplexer   1 . SequentiaI memory
    B.De-muItipIexer   2.Converts decimal numbers to binary
    C.Shift register   3.Data selector
    D.Encoder   4. Routes single input to many outputs

    A. A-3,B-4,C-1,D-2   B.A-4, B-3, C-1, D 2   C.A-3, B-4, C-2, D 1   D.A-I, 8-2, C-3, D 4

ANSWERS :
1.FALSE 2. OPTION A 3. OPTION B 4. OPTION A 5. OPTION A 6. OPTION C 7. OPTION C 8. OPTION A
9. OPTION C 10. OPTION A 11. OPTION D 12. OPTION B 13.OPTION D 14.OPTION C 15. OPTION B

BOOK

RECOMMENDATION

ILLUMINAE

Illuminae is a young adult sci-fi novel written by Amy Kaufman and Jay Kristoff. It is the first book of the Illuminae files series. This novel was released in the year 2015 and got great reviews for its inventive way of storytelling. Set in the year 2575, the story revolves around the two main characters Kady and Ezra along with a few people who are the survivors of a brutal genocide on their planet Kerenza IV.
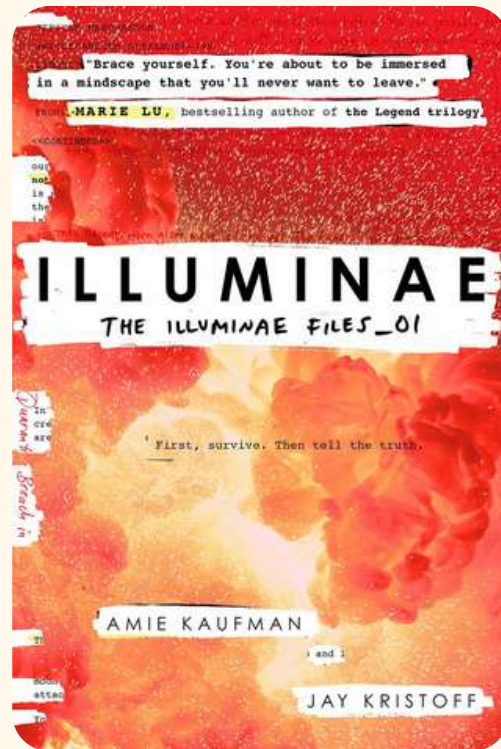
They are a part of a fleet of three ships that escaped the attack. Revealing the plot more than this would ruin the experience, so I'll just leave it. The entire story is told through the help of documents such as emails, recorded logs, medical reports, maps, and other files. There is not even a single instant in the novel where the characters talk face-to-face. This might feel like a cheap marketing gimmick but trust me this will be one of the unique book-reading experiences in your life.

The authors have done an impeccable job by making the 600 pages story riveting without slowing down even for a moment and also being packed with crazy twists. Don't let the number of pages scare you. Once you start reading the book, you will never put it down. The characters in the story are very well written, each having a unique personality and motives.

I loved the character arc of Kady very much. This book also has a unique antagonist whose character is very fascinating. He often blurs the line between good and evil. The book is also hilarious at times. Overall, Illuminae will be a wholly unique and a mind-bending experience for anyone ready to get sucked into Kady and Ezra's world.

S.R. PARVEZ RISWAN MOHAMED
IV - B

LOOKING FOR ALASKA

Looking for Alaska is a Young adult novel written by John Green. If you are not familiar with the name John Green, you are either not a book reader or have been living under a rock your whole life.

He is the author of the famous novel The Fault in our Stars which was made into a film in Hollywood as well as in Bollywood (Dil Bechara). Looking for Alaska follows the story of Miles Halter who is searching for his great perhaps as he moves to Culver Creek boarding school in Alabama.
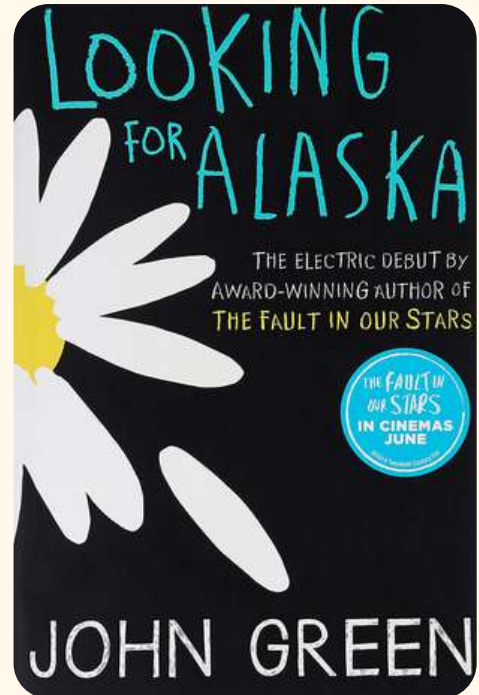
Miles Halter is interested in the last words of famous people. His new roommate, Chip, introduces him to Alaska Young. Alaska Young is a beautiful, witty, and carefree character with a little mystery around her background. This story deals with various topics such as Friendship, Heartbreak, Self Discovery, Love, and Death.

The characters in this book are written very realistically. All these characters behave just as you would expect an average high schooler to behave, which is very hard to find in stories and movies nowadays.

We get connected to the characters very easily so, whenever they go through pain, we feel for them. The journey of Miles and Alaska is a rollercoaster of emotions. you feel the excitement, shock, sadness, and sometimes even anger. This book also teaches us a lot of valuable life lessons like all of John Green's other works. Looking for Alaska may not be suitable for all readers as it is aimed at a more mature audience.

 Don't read this expecting a fun coming-of-age story set in a high school. Sometimes you'll be laughing out loud and sometimes you'll be moved to tears. This is one of the most heart-wrenching stories I've ever read in my life, and it's not a bad thing. It made me think about a lot of things that you wouldn't expect a storybook to do. Overall, Looking for Alaska is one of the best stories I've ever read in my life and I would suggest that everyone must read this book at least once in their lifetime.
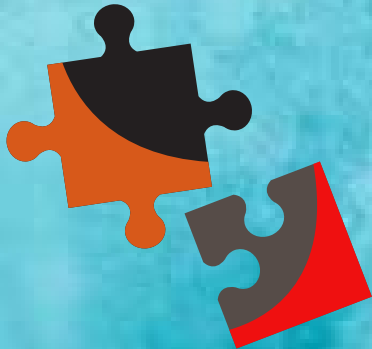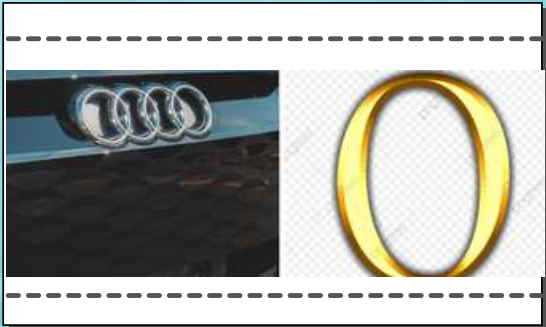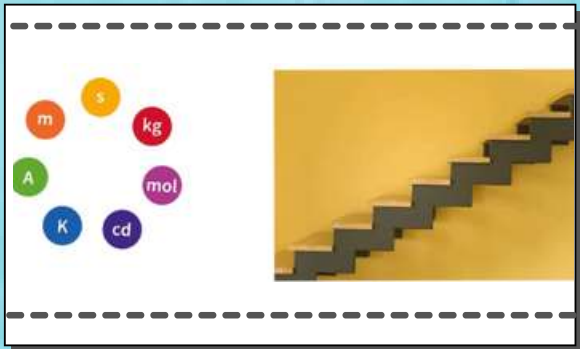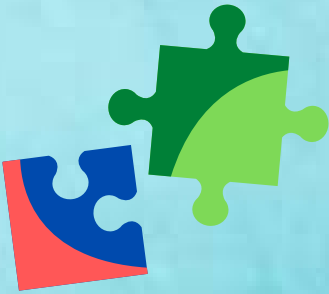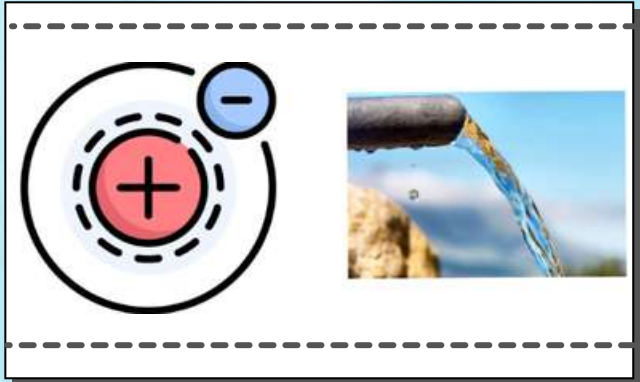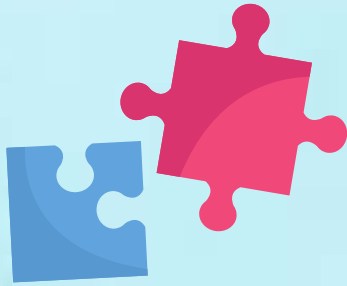
S.R. PARVEZ RISWAN MOHAMED
IV - B

Answers: Electron flow, Photodiode , Unit step , audio

CREATIVE WRITING

MY CHOICE

Making choices can affect any and everything in our life, whether it's dealing with our families or just daily situations. At any given point in time, we are faced with choices that either have a positive outcome on us or it makes a turn for the worst. We humans can't always make the right choice because if we all do is the right choice then how will we ever learn? We can think for a moment about the consequences which might happen before we make a choice. All through my life, all I have done is take decisions in a rush, without thinking about the results and their impact.

Taking rash decisions has affected not only myself but also the people surrounding me. over-speeding my bike and ending up in an accident didn't just fracture my limbs but it also caused a brain concussion to my friend riding with me in the pillion seat. The guilt was too much to carry around as I had no one to confide in. I was lucky enough that I didn't cost a life with my rage to drive fast. The choice we make in a rush have devastating effects and by the time we understand it's too late. When we were young we took a few important choices on what subject to study and how to get good grades but as we grew older we are not sufficiently wise to realize that a little pain now gives a great gain in future.

All we want is the pleasure that comes from eating the forbidden fruit. As teenagers we see adults smoking and consuming alcohol and saying that they take it to overcome the stress of the day or seek great pleasure from it , we try to inculcate those habits in us and only when we turn into adults do we understand that we weren't wise enough to understand that the same pleasure which adults said gave them pleasure it also causes future ill health problems. The choice of consuming alcohol or smoking only ends up in lung disease.

Our life is a road, a road full of corners, detours and crossroads. And every time we encounter a crossroad we need to take up a direction, a path which is less travelled or perhaps a road with limited knowledge whatever may be the road we can't halt for long. We have got miles to go before we sleep. Making the right choice here is impossible. We never know where these roads will lead us when taking them. There are no guarantees that it will be a bed of roses. Making the right decision every time doesn't mean there will be happiness. Gaining fame will not lead to happiness or Loving someone doesn't mean that you'll be loved back the same. There are too many possible outcomes which we cannot control. The only thing which we have control over is the choice we make and how we act and react to those choices.

Finally, we need to remember that whatever we do, it's not the end of the world, there's always a solution for everything. Make our own decisions, it's okay to know someone's opinion, but the decision is ours to make. We should always consider the good things and the bad things about our decision, and the results of it. It's natural to take the wrong decision sometimes. We learn from our mistakes, what's more, important is we don't brood over the past. Let the dead past bury itself we need to focus on what's coming our way.

MOHAMED AMAN
IV - A

STORYTIME

CODE RED!!

Agni, a man, walking down the street, the world he sees seems red.

Suddenly, a truck hits him as he was about to cross the street. A frightening and evil-looking red man who was laughing at Agni appears in his eyes, even when he blinks rapidly.

Red man - Are you prepared to see the hell, my kid?
"What the hell", Agni speaks, "I don't grasp."
Red man - You're right... The hell, you're gonna witness hell.
Agni was clenching his teeth. Agni's soul is throbbing in the red man's hand as he lifts him upward, Only the soul of Agni arises.
Red man - You have a second chance to commute your death sentence. Already, Agni's memories are slowly fading away.
Redman - for your soul to enter paradise, you must atone for your worst sin before the memories completely fade away.

As a result, Agni's soul again enters his body, causing him to wake up with traumatized eyes. Everything that was red returns to its original state as soon as he regains his sight.

While eating lasagne, Agni notices that his pocket holds a journal. Then, a flashback of the red man appears.
—- THE FLASHBACK —-

Red man: You can use this to alter your past
Then the red man vanishes.
"Back to Agni eating lasagne"

He looks into the journal, but it's empty. Agni was unsure of what to do with the book so he started writing the journal about the red guy stated earlier about Agni losing his memories and having to set things right before he loses all his memories.
Agni then reads what he had written. Agni signs lethargically and tears out a page from his journal then abruptly enters a tunnel of his memories. He feels nostalgic and touches one of the memories as he strolls down memory lane. His cheek crinkles as a tear drips, after which everything goes dark.
Riya Riya Riya begins to chant as the screen turns black.

Antagonists surround Agni and Riya while they are imprisoned in a basement.

Agni himself was passing down the memory tunnel. He observes everything objectively... As he observes the memories, Riya is struck by an assassin, who then casts Agni free.

The Antagonist said, "If you can defeat us, spare Riya, otherwise you can flee."

So, Agni runs away

Riya sobs and everyone else around them laughs and goes near Riya while Agni runs away.

Agni sees this from outside and is unable to watch, so he tears up the page and screams, "Change!"

Then, as the screen begins to glitch, he returns to the original scenario where he is chained with Riya and the same events took place as they did before. When everyone sees Agni, chuckle while holding the journal, the room falls silent.

Agni is then badly injured in a brawl, and as Riya was about to be stabbed by a knife, Agni writes a note in the journal, which causes the dagger to abruptly change into a rose. Agni shouts "I love you, Riya!" before being hit and thrown to the ground.

Agni finds one more blank page in the journal as he collapses to the ground and tries to write something in it the antagonist notice and grabs the journal of his hand. One of the men yells, "Tear off the journal," while pointing a gun at Agni's head.

He pulls the trigger, the sound of the gunshot fills the room, and the screen goes black. When the screen reopens, the rival appears to be dead and lying on the ground.

Rewind

He rips the page from which it is written, "let the bullet be mirrored," as the bullet exits the rifle. Then everyone runs away in terror as Riya embraces Agni in her arms disappearing into the wind and the screen goes black.

When the screen reopens, a grandmother and grandfather were having a heartfelt conversation when the grim reaper comes turning the eyesight of the old men red, chuckling at the grandfather, and saying, "Code red."

The old man's soul departs as he says "Code Red," and the grandmother gasps in shock at finding her husband dead. An image of Riya and Agni appears in a picture frame as the camera drifts off.

THE END.

ASJATH SHAJEHAN III

POETRY
LET HER DREAM

Women are unsuited,
some Buzzkill says They actually don't know our proficiency, do they?
From sports to space women reign,
we are competent too how do we explain? Every woman desire to embellish herself
by becoming a warrior or queen
Why do you set boundaries and limits to your dreams?
Let our girls grow up in a family where their dreams are not incarcerated.
Let this amelioration commence from us.
Let's make our world a better place.
Let's pulverize each and every gate.
Let our girls dream even in the darkest hours just like the sun in the fiercest of
storms.
And one day when the misogynist reads the pages of history bookmarked for all
eternity, they will find our names engraved and spaces left for many.

Blessy Charis. J
I-A

CATASTROPHE OF UNIVERSE

WE ARE NEGLIGIBLE !

We are negligible !!

"Sitting inside a nutshell, we claim to Be the masters of this infinite space "

Today having this vast insight of knowledge and how the universe actually works , we all forget a huge something commonly known as the "eye witness testimony" .

The human mind is a warehouse of errors , we have this ascertain inability to cope up with probability and statistical data ..on an average every 2.3 times we actually take a reading , we are wrong ! ! !

This is certainly something that has not really been bothering us so much !

Run through your naked eyes into this vast naked universe right in front of you ..;

You will notice an endless vacuum of space ...something so huge your eyes are simply incapable of capturing , you'll toss your head around , just to escape what you're seeing is so vast and is yet infinitesimally small !

Brain freeze alert !!

We don't know the origin of 80% of the matter we feel

We don't know the Source of 70% gravity

We don't know the reason for 60% of the energy that surrounds us

We don't know who we are

What we know is just 0.000000001% of what things actually are !!

Remember the photographs taken by Cassini !?

We are a tiny dot as seen from the rings of Saturn! A person who has the knowledge of the logarithmic scale of the universe knows that how small is the distance between the Saturn and the earth and then imagine the thought that we're just a speck of dirt in this vast endless enigma of vacuum that is above your head !

Let's do a thought experiment !

You make 1000 people stand and tell them to toss a coin ..

and tell the people arriving at tails to leave !

The number ,statistically the probability being 50% ,keeps decreasing !

You're left with 500 , then 100, then 50, and gradually at the end you're left with one !! That one person was who tossed the coin and ended up with heads 10 times in a row ! We as humans are ironically treating that one person who ended up with heads 10 times in a row as the master of this space that we see ... I meant the 0.00000001% of the universe that we see ..you are one speck of dirt in this universe !with you I mean the entire human population. In fact to be accurate WE!

We are one amongst gazillion to the power gazillion to the power gazillion to the power gazillion duh

specks of dirt floating around in this endless space !

So stop behaving as if your problems are huge !

THE UNIVERSE DOESN'T CARE!

SRIYA SAMANVITA M
II - B

THE UNTOLD REALITY

Cities don't sleep anymore,
dreams wander under streetlights,
but the day exposes what nights put a veil on,
the world is blinded,
under the praises of bright days,
about appalling darkness that roams helplessly
cities don't sleep anymore,
the night lends tenderness
to the world,
which is crushed under civility
that sleepwalks in black shoes
how merciless of this world,
to empty out screams of generations,
and when all that they carry is stifled silence,
their children are asked to answer
in languages they were never taught
cities don't sleep anymore,
because the night echoes those screams,
screams that were once unheard prayers,
unintelligible in sanctums of apathy,
because tongues have been cut off,
in the name of gods
cities don't sleep anymore,
as they fear that a sleep
would uncover unholy nightmares,
unaware that their gods and children
were born out of it,
cities don't sleep anymore,
because they have never been awake

SRIYA SAMANVITA M
II - B

UNEXPECTATION

A man wakes up from a hard sleep. His head is aching, and soon after he opens his eyes, sees things he has never seen before, cars were flying midair, people were seen using MR boxes, sees news that they have found anti-gravity to end suicides. When he looked at the digital billboard, it had a date of 10-02-2122. He is totally confused. He can remember his only name," ALOK". He has no clue what just happened the night before. He was just wearing some weird lab coat and a ring. When he just passed by a TV showroom, he noticed the news flashing "Officials have found that someone has used the time machine from the past. As per the law of 2100, time travelling is banned to prohibit the action of changing the past or future". ALOK guesses that it must be him whom time travelled to the future. But he didn't have any idea why he did time travelling. He somehow comes to know that the cops have found him and he is been targeted. This time the cops chased him. As he was exceptionally smart somehow, he could able to escape from the cops thrice. When the cops chased him 4th time he enters a lab which had the technologies that ALOK had never seen before. The man inside the lab welcomed him saying "Hello!! Alok. How are you?". He had no clue who he is, so he asked him in a confused manner, "Who are you? How do you know my name?" the young man said that he was his great-grandson "KEN". Alok had no idea what was happening there, so he asked KEN to explain what is happening.

*KEN starts explaining what happened.

There is a red-coloured stone which is known by the name "NICA". It was found in the early 2000s that "NICA was the rarest element which can unlock special supernatural abilities in humans. And you are the one who discovered it. But the government was unable to understand it, so they abducted it from you". Ken wanted to get his hand on it, but he was unable to find one. Ken saw Alok in his family photo which KEN's father was collecting. Then he saw Alok with a red-coloured ring. When he researched about it, he found that it was NICA, so he wanted to get it from Alok but he was his great-grandfather who is not alive in that time period. He is too smart as his great-grandfather, so he built a time machine on his own and set a time bomb for Alok to bring him to the future because he was not sure about the consequences he may face while travelling. Alok started to remember things.

When Ken come to reach for the ring, Alok stepped back and pulled out a watch and placed it on his wrist. The watch covered his entire body with a suit. Ken was shocked as it was the suit used while travelling through time. Then Alok explains that he is the one who travelled time for the first time. But he couldn't able to travel to the future at that time. So, he set up a time capsule with the made-up story of NICA, expecting someone would come from the future for Nica. But to his surprise, he found himself in the future. Now, he grabs his great-grandson's hands and burst him into ashes using his time travelling suit which can forward or reverses the age of someone or something. And realizes this would've been the reason government banned time travel as this is how dangerous it is. He laughed menacingly and marched towards the city military base which holds the dangerous technologies built throughout the century.

SYED WAZAFEER SN
I-B

ANSWER::Spectrum, Fourier, Antenna, Resistor,
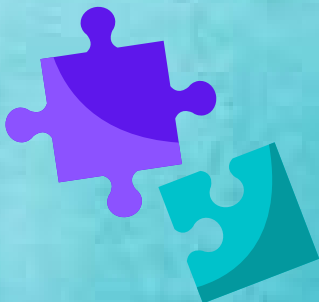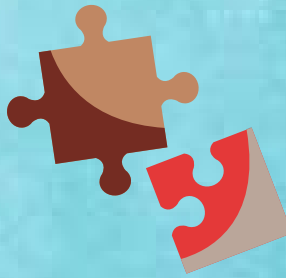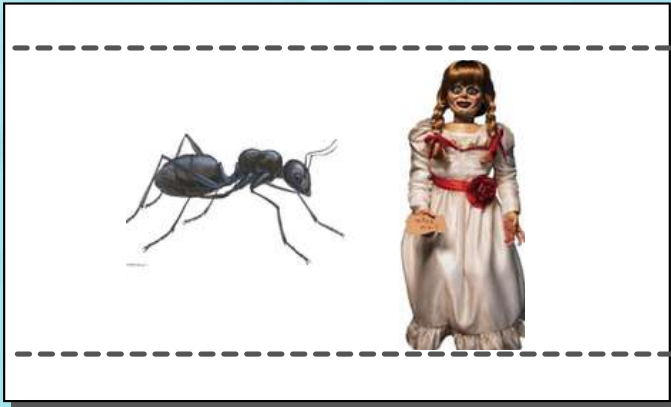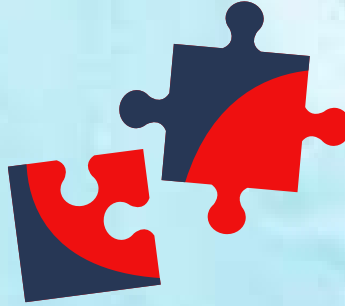
OUTDOOR
PHOTOGRAPHY

NATURE | CLOUDS | TREES | PLANTS

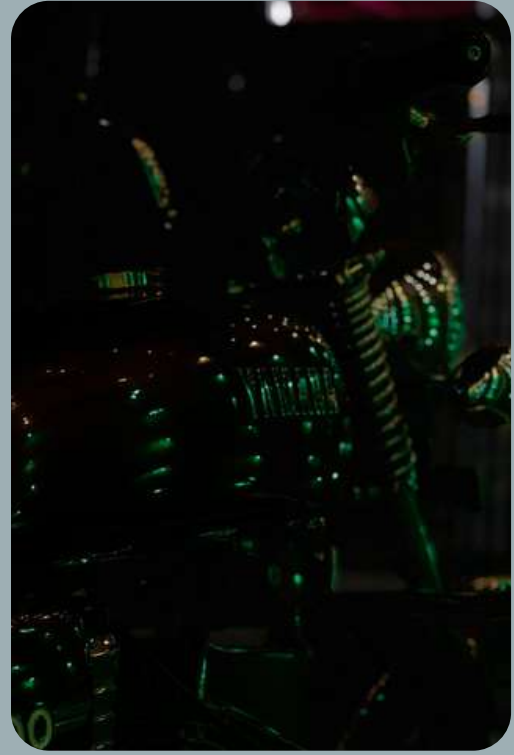*Werifesteria -"to wander longingly through the forest in search of mystery "*
S.Faadhil
I-A

"look like a beauty ride like a beast"
Ahamed A
II - A

Psithurism-" the sound of wind in the tress"...
S. Mohamed luqmaan
I - A

Komorebi-"sunlight that filters through the leaves "
Srivatson
III

"There are moments that the words don't reach "
Roshan Akthar
III

"The world is quite here"...
Akilan.U
III

"view from mechanical block @BSA"
Ameer Shajeer
II - A

"Everthing has beauty,but not everyone can see"...
Mohamed Hassif Y
III

*"what's meant to be, will always
find its way....."*

Joshua John
III

"The buildings we shape,stores the memories we make"
Muzamil Ahmed
III

"Zephyr- a gentle breeze"
Aamir lodi
II - B

"sometimes in the waves of change we find our true direction .."
Salman.S
IV - B

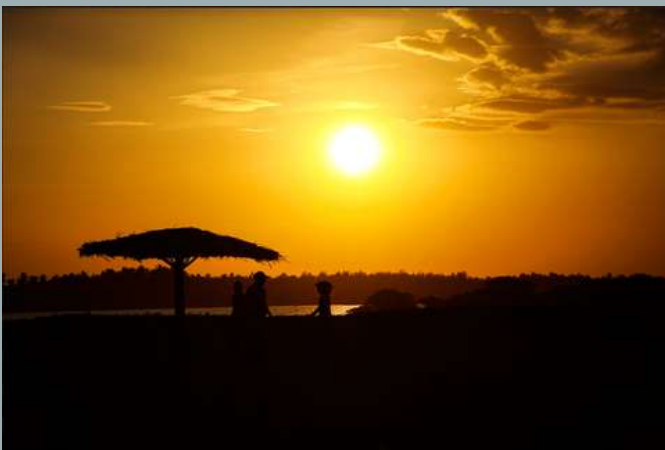*"Serendipity- finding something good without looking for it"*
Sairam Siva
II - B

"Hygge- a feeling of warmth and cosiness as you enjoy life's simple pleasures"

"Meraki- To do something with soul and love"

"Orphic-mysterious and entrancing; beyond ordinary understanding "

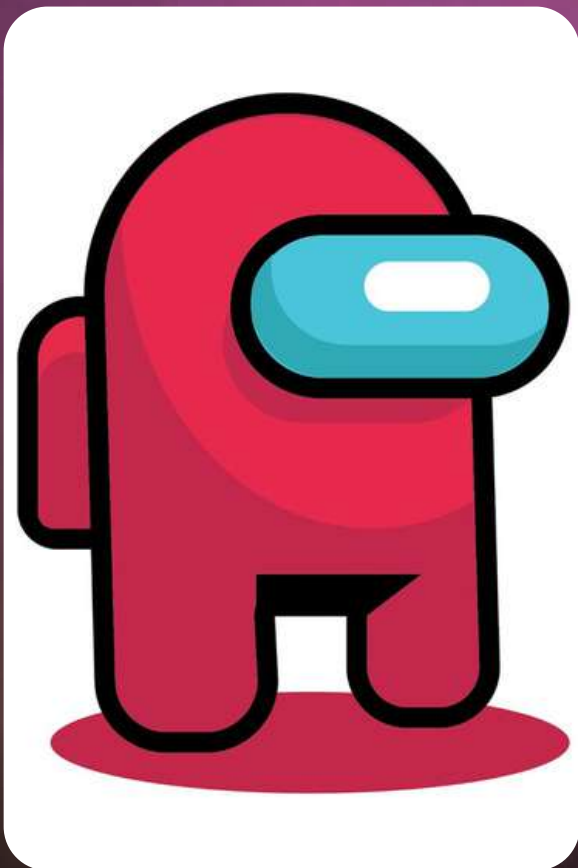*Kopfkino-The act of playing out an entire scenario in your mind .*

NITHIN ADVAITH

IV - A

CANVA CORNER

Artwork done by our students ranging from simple pencil sketches to Graphic illustrations.

Gopinath S
I - A

DAY N' NIGHT

Shadir Sharafat
I- A

Halabi Ahamed
I- A

Mohammed Afsar
II - B

Christina Rabert
I Year

Patan Apshar Khan
I-A

A.S. Arshiya
Mehaajabbin
ECE - 3rnd Year

A.S Arshiya Mehaajabbin

III Year

Shree Harini K.P

IV - B
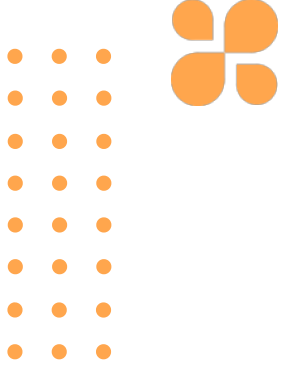
STRENGTH OF ECE

UNITY IS OUR STRENGTH

DR.D.NAJUMNISSA JAMAL
DEAN/SECS

DR.C.THARINI
PROFESSOR & HEAD/ECE

DR.S.KAJA MOHIDEEN
SENIOR PROFESSOR & DIRECTOR(PG ADMISSIONS)

DR.P.K.JAWAHAR
PROFESSOR

DR.M.MOHAMED ISMAIL
PROFESSOR & DEPUTY DEAN
(ACADEMIC AFFAIRS)

DR.B.VIJAYALAKSHMI
PROFESSOR

TEACHING STAFF

DR.G.KANNAN - ASST.PROF.

MR.H.HASAN BABU - ASST.PROF.(SR.GR.)

MR.R.INIYAVAN - ASST.PROF.(SR.GR)

MS.M.PADMA USHA - ASST.PROF.(SR.GR)

DR.PARNASREE CHAKRABORTY - ASST.PROF(SR.GR.)

DR.M.VANMATHI - ASST.PROF(SR.GR.)

DR.A.AMBIKA - ASST.PROF(SR.GR.)

DR.K.INDRA GANDHI - ASST.PROF(SR.GR.)

DR.S.KALAIVANI - ASST.PROF(SR.GR.)

MS.G.ANURADHA - ASST.PROF(SR.GR.)

MR.S.SADHISH PRABHU - ASST.PROF(SR.GR.)

MS.R.MAHALAKSHMI @ ISAKKI- ASST.PROF(SR.GR.)

DR.A.PRIYA - ASST.PROF(SR.GR.)

MS.R.ANITHA - ASST.PROF(SR.GR.)

DR.S.SYED RAFIAMMAL - ASST.PROF(SR.GR.)

MR.A.RAMESH KUMAR - ASST.PROF.

MS.S.ANUSOOYA - ASST.PROF.

DR.V.JEAN SHILPA - ASST.PROF.

MS.B.SIVASHANMUGAVALLI - ASST.PROF.

MR.M.SELVAKUMAR - ASST.PROF.

NON TEACHING STAFF

MS. M.SOWHATH JAHAN - SR.STENOGRAPHER

MR. I.SHAHUL HAMEED - ATTENDER GR - I

MR. M.ABDUL WAHAB - SR.INSTRUCTOR

MS. S.HEMALATHA - INSTRUCTOR GR - I

MS. E.GOMATHI - INSTRUCTOR GR - I

MR. M.MOHAMED RAFI - INSTRUCTOR

MR. N.SASI KUMAR - TECHNICIAN

MR. PRAVEEN - SYSTEM ANALYST GR-II

MR. T.JAGADEESAN - HELPER

GRADUANDS LIST

2018-2022

ECE - A SECTION

AAKIF AHMED T

ABDUL ALEEM

ABDUR RAHMAAN

MD FAROOK AMEEN

ADNAN MUMTAZ

ANANDA PERUMAL B

ANIRUDH S

ANJANA BADRINATH

ANKEETA BEHERA B

ANNE PREM

ARAVIND

ASILA FATHIMA S

ASWAR AHAMED

BADHRINATH S

BASIREDDY MA REDDY

BATHREENARAYANAN S B

EMMANUEL BENJAMIN

FEODOR MARIAN S

FURQANA SARA

GAMINI SAI KIRAN

HAJA MOHIDEEN

HIDHAYATHULLA KHAN

IDRIS MOHAMED

INAKOTA POOJITHA

JANANI.M

JEEVITHA M   JUHIE SIMEN A   KEERTHANA   KEERTHANA V   MAHABOOB RAHMAN

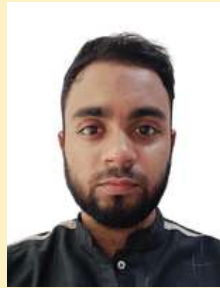MOHAMED ASLAM L   MD DHANISH   MOHAMED NADHEEM   MOHAMED YASER   MD AJMAL AASHIF

MOHAMMED IJAZ   MD MEHRAN SAQUIB   NAVOJ PRABU R   R S NAWINEESH   TSR PALIE

PATHAN ZUBAIR KHAN   BALA MURUGAN   RIYAZ PATTN   ANDESHWAR ROYAL   APARNA S

IYSHWARYA S   SHANMUKH SAI

ECE - B SECTION

POOJA ARUNA DEVI D   PRAMOD B   PREMKUMAR R   PRIYADHARSHAN   PRIYANKA

QAMAR   RAJA MAHENDRAN   KESINENI RAMYA   NIKHITA REDDIM   RISHUB

ROHITH VH   ASHRAF KHAN   SARAN VISWA TM   AFROZ   SEYED HAARIDH

SHAIK AFSAR   SHAIK JAKIR   SHAIK RAMIZ BAHAMANI   SHAIK RIYAZ   SHOUKATULLAH

SHOYAB   SHIRIN RAFIA   SHYAM S   SUDHERSAN N   SUHAIL

SUMAIYA FATHIMA   SUMAIYA TABASSUM   SUNDHEEP   SAKTHI KUMAR   SURIYA D

SUZAINE S   SWETHA.G.S   SYED INAYATHULLA   SYED MISHAL   THANUJA N
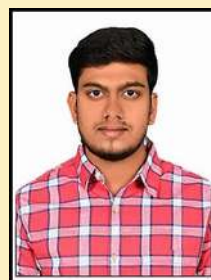
THARUNKUMAR   THIRIPUVANA SUNDARI   VARSHINI   VEDASISTLA SOHITH   YASHWANTH

YETIGADDA BHANU   SHAIK ELIYAS BASHA   SHANAWAZ   SWETHA

THE TEAM

CONVENOR

DR. C. THARINI

STAFF CO ORDINATORS

DR. K.INDRA GANDHI

DR. PARNASREE CHAKRABORTY

STUDENT CO ORDINATORS

FADHL UR RAHMAN
FINAL YEAR

UMA MAHESHWARI .P
FINAL YEAR

PARVEZ RISWAN
FINAL YEAR

SRI KUMARAN
FINAL YEAR

FADHL UR RAHMAN
FINAL YEAR

AJITHA KAMALI
III-A

ASMAA AREEF
II-A

SRIYA SAMANVITA
II-B

SHAFEEQ AHAMED
FINAL YEAR

Team alumni talk

THASLIMA PARVEEN
FINAL YEAR

SHAFEEQ AHAMED
FINAL YEAR

TEAM COFFEE WITH FACULTY

UMA MAHESHWARI .P
FINAL YEAR

ASMAA AREEF
II-A

MOHAMED HASSIF .Y
III-A

TEAM OUTDOOR PHOTOGRAPHY

NITHIN ADVAITH .P
FINAL YEAR

THARIQ
FINAL YEAR

TEAM CANVA CORNER

HARINI
FINAL YEAR

SHANMUGANTHAN.J
III YEAR

SAIRAM
II -B

SANDHIYA.S
II-B

TEAM GAME TURBO

MOHAMED MAHIR
FINAL YEAR

SRIVATSON .S
III YEAR

TEAM GEEK UPDATES

KRUBA SHANKAR
FINAL YEAR

SHAMEEL AHAMED
III YEAR

TEAM QUIZ TURBO

SYED MOHAMMED
OMEIR HUSSAIN
FINAL YEAR

SRIYA SAMANVITA
II-B

KEERTHANA
II-A

SANDHIYA.S
II-B

TEAM PROJECTS

SAIFUDEEN
II-B

K.S SIRAJUDDIN
FINAL YEAR

JOB OPPURTUNITIES IN VLSI & RF

THASLIMA PARVEEN
FINAL YEAR

MUHAMMED AAMIR KHAN LODI
II-B

CRES ECE MINDS

CRES
ECE
MINDS

B.S. Abdur Rahman
Crescent
Institute of Science & Technology
Deemed to be University u/s 3 of the UGC Act, 1956

DEPARTMENT OF
ELECTRONICS AND COMMUNICATION AND ENGINEERING

DESIGNED BY FINAL YEARS AND
THIRD YEAR STUDENTS