COLOSSAL

DEPARTMENT OF COMPUTATIONAL INTELLIGENCE
SCHOOL OF COMPUTING

COLOSSAL

AI, ML & SOFTWARE ENGINEERING: EXPLAINING IT LIKE YOU'RE 5

BY RIYA

Ever wondered how Siri will eventually bring our doomsday? This is the guide to answer your 'how?'. From Elon Musk urging the population to slow down for fear that AI would take over the world to Hanson Robotics going on to develop "Sophia", the first robot to become a full citizen, we've come a long way in a short time. Granted, Musk is yet to cease his AI warnings, the world of Artificial Intelligence and Machine Learning continues to accelerate at an unfathomable pace. While artificial intelligence refers to the concept of creating intelligent machines that can mimic human cognitive abilities and behaviors, machine learning refers to a specific application of AI where machines can learn from data without being explicitly programmed. Remember, your good ol' friend, Siri? That smarty is one of the most popular forms of Artificial Intelligence injected directly into your life.

So, you took up software engineering? But you have no idea what it is? Strange, that sounds like me. Though extensive research has taught me one thing, software engineers love to play God, killing and rebirth is their forte. Simply put, software engineering is what it takes to analyze user requirements and then design, build, and test software applications that will satisfy those requirements. It's a much more complex world than what your average Joe programs. The use of C++, Java, Python, and other languages isn't just limited to 'results', it is what makes the development of the software more effective and efficient. With billions of items and petabytes of data at their disposal, companies like Google and Microsoft have got to be systematic and organized, to be sane. This sanity is in your hands, my friend. It's unbelievable how close we are to the future, unbelievable how we can be the future ourselves through SRM University. With opportunities at each step, top-notch labs, and unlimited resources to broaden one's horizon, SRM provides each one with what it takes to be at the top of their game.

MESSAGE FROM THE DESK OF THE CHAIRPERSON

DR. REVATHI VENKATARAMAN

Engineering is not just a degree, but a way of thinking. A way for your creativity, originality, and innovation to come together and create something extraordinary. The sphere of engineering is rapidly advancing in the modern world. From online shopping to personalized health care to automated cars, engineering is seeping its roots deep into the society. Despite the proliferation of engineers over the last few years in India, the demand for good engineers remains constant. As quoted by James A. Michener "Scientists dream about doing great things, engineers do them." Almost everyone can describe the bottom of the mountain, but only a few reach the summit. The School of Computing provides a springboard of umpteen opportunities for young dynamic minds by blending theoretical and practical aspects of computing technologies. Our primary focus is to equip the students to meet the challenges of the current and future digital world. From its inception, the School of Computing has been introducing alot of new programs, courses to meet the demands of the industry, creates a platform for enormous job opportunities. Department of Cintel provides top notch courses like AI, ML and SWE which has been hottest fields of the century with a vision to prepare the young graduates to cater the various career options to run at par with the digital revolution.

MESSAGE FROM THE HEAD OF THE DEPARTMENT

DR. ANNIE UTHRA

We have a dream, a dream to be one with our vision; the vision to excel in this battlefield of technology. The Department of Computational Intelligence has taken the initiative to empower each and every one of its students to be confident, diligent, focused and exceptional. Artificial Intelligence, Machine Learning and Software Development are the unseen fuels that power the world. From product recommendations at Walmart to fraud detection at various top-notch financial institutions to the content used by LinkedIn, Facebook, Instagram, and Twitter on users' feeds, their importance in today's reality can hardly be overstated. If religion ruled the masses for entire centuries before modernity, it is now true that Computational Intelligence rules the masses with its all-explaining nature and commercial as well as innovative viability. Our department is committed to developing each student's potential and achieve global excellence. By embracing various inter-disciplinary streams, we make it possible for each to experiment with their environment. With a faculty of highly experienced and dedicated instructors committed to each student's growth, we strive to produce engineers of high calibre and make a mark on the world.

ABOUT THE DEPARTMENT

Believe us when we say this, you can eat the world raw. In today's era of accelerating globalization and increasing dependency on technology, SRM University has undertaken the challenge to carve the most phenomenal engineers, leaders and trendsetters our economy can have. The Department of Computational Intelligence is an educational milieu that creates a foreground for students to acquire knowledge in the futuristic areas, Artificial Intelligence, Machine Learning and Software Engineering. We strive to create students ready for the industry with the ability to develop and sustain the space-age systems.

VISION

A breakthrough in the field of AI & ML Research for each student with comprehensive hands-on experience is what we strive to achieve. Through the Department of Computational Intelligence, we do everything it takes to develop professionals who can design, develop, and evaluate high-quality, cost-effective software systems. Our diverse program curriculum is focused on equipping the students with expert faculty and industry professionals with a foundation for knowledge, global competencies, excellence in designing and developing. At the department's core is the desire and need to stay ahead of the curve and at par with the ever-changing needs and demands of the software industry at the core of the department.

MISSION

It is our mission to groom and nurture the students in academic excellence, industry exposure and provide them with outstanding career opportunities. We offer specialized global technology programs in both under-graduation and post-graduation creating a scope to expand their horizon worldwide. With multidisciplinary expertise in research areas such as Artificial Intelligence, Machine Learning, Data Science, Neural Networks, Computer Vision, Natural Language Processing, Speech technology, Robotics, and Renewable Energy, the department offers a combination of the three competing technologies, AI, ML and Software. Furthermore, we work on industrial collaboration to make intelligent systems guided by industry mentors.

The curricula's prime focus is to endorse learning through the key concepts of acquire, analyze, design and implement oriented teaching will create the students to challenge, innovate, compete with assigned Capstone projects to solve real-world problems to make themselves industry ready professionals and enable them to become future entrepreneurs.

With no lid to cap your creative genius, the Department of Computational Intelligence brings you forth all the means to implement and take advantage of a wide variety of emerging cutting-edge technologies in software systems or simply be the mastermind behind it all.

CINTEL ASSOCIATION

Are you really, really doing college right? Be it the goody-two-shoes or the hot-sauce-is-my-twin kind of student, clubs and events are the highlights of one's college life. Learning is always at its finest when among friends and joining a club is just the perfect place to start. So get out there to find the people you can say are yours, to build powerful resumes, and take the talent you possess to stage.

The key Mission, Vision and Initiative of the CINTEL Student Association is listed below :-

Mission: Our mission is to develop a community of like-minded individuals driven by their passion towards technical development.

Initiative: A collective bunch of technical enthusiasts from the Department of Computational Intelligence who have come together to form a student run association catering to technical development in order to nourish the community.

Vision: Our vision is to create a community where everyone can hone their skills whilst contributing to the overall development of the college community.

CINTEL ASSOCIATION INAUGRATION

The CINTEL Student Association was inaugurated on 16th September 2021 at Mini Hall – 2, TP Ganesan Auditorium. The occasion was graced by the Chairperson for the School of Computing – Dr. Revathi Venkataraman who declared the official opening of the Association and also had the privilege of releasing the department logo and CINTEL Student Association Logo.

CINTEL STUDENT ASSOCIATION LOGO

The welcome address was delivered by Dr. Kottilingam, Associate Professor, CINTEL, SRMIST. The Felicitation Address was delivered by Dr. R. Annie Uthra, Prof. & Head, Computational Intelligence, SRMIST. The keynote address was given by Mr. Thamaraiselvam, Lead Trainer and Faculty Zoho Corporation, India on the impact of JAVA in programming with its impact on various trending real time applications.

THE DEPARTMENT LOGO

The association coordinator Ms. Sasi Rekha Sankar did the curtain raiser on the vision and mission of the department and the salient features of this association. The students' winners of the critical thinking contest and the students who got placed in the Marquee Company were presented with certificates as a token of appreciation. The 3rd year student Aarsh Sapra - Student President presented the association core team and the vote of thanks was delivered by the student and treasurer, Nigel Jonathan Renny. More than 250 second participated in person and 200 plus students on online mode.

C-INTEL: HAS IT CHANGED YOUR LIFE YET?

BY SANSKRITI

There's more to college than just impressive academic outcomes. Having something to look forward to in your free time makes the journey exciting! This is where college clubs and organisations kick in. CSE programs function best when they furnish numerous extracurricular opportunities for students. It is an essential and an empowering part of a comprehensive computer science education.

Computer Science and Engineering Association (also known as C-intel) is the official Computer Science club of SRM KTR and one of the most happening clubs at SRM. It strives to make successful events, workshops and, webinars, to provide obliging resources to fellow CS students.

With an objective of helping students to deepen their knowledge, sharpen their skills, and (to a degree most classroom experiences don't allow) learn how to work with each other. It organizes various events, technical fests and, seminars such as on Artificial Intelligence, Machine Learning, Internet of Things, Web Development, Opensource Software, etc.

The flagship event of C-intel, Ultron a techno cum non-techno fest organised annually. It even covers domains like gaming and sports. With a copious event reach (over 40k undergraduate and postgraduate students), it's as colossal as the potential in SRM students to make the world a better place.

Going forward, this branch-specific club organises an event, titled CSE FRESHERS for the first-year students, under guidance from experts to encourage more students to join the club. Cultural events are also arranged which include music, dance, photography, and even reels (to furnish the super gen z vibes)!

Ultimately, the time spent with C-intel is not only productive but also endless fun as it offers something to every student.

CRITICAL THINKING CONTEST – "I THINK, THEREFORE I AM"

BY RIYA

If life was all rainbows and daisies, who would bother to leave the bed each day? Instead we live for the thrill of building empires from imagination, of being able to execute them. With this vision, on 14th September '21, the Critical Thinking Contest was hosted by CINTEL Student association as a welcoming gesture for the second year students from the department of Computational Intelligence (AI, AI/ML, SWE).

With around 300 participants, the contest began and was split into three rounds, the competitiveness becoming more real by each round. The initial round had 10 questions to be answered by each participant with some defined possible answers. This round eliminated 220 participants, leaving only 80 to move ahead in the battle. The second round comprised of 7 questions for each to solve, and merely 10 students were shortlisted. The third and final round consisted of 3 theoretical questions with our judges selecting the best possible answers. Only 3 of the initial 300 emerged victorious at the end.

Anirudh Maheshwari was the winner, Harikesh came in second and Tapnanshu Atharva came in third, all from the CSE AND AI/ML specialisation.

SRMIET

What is IET?
We are the IET and we inspire, inform and influence the global engineering community to engineer a better world. As a diverse home across engineering and technology, we share knowledge that helps make better sense of the world in order to solve the challenges that matter. It's why we are uniquely placed to champion engineering.

What SRMIET does?
The SRM IET On Campus is a body that acts as a bridge between IET India and the IET student members of SRM University as well as conduct various events.

IET The Institution of Engineering and Technology

We bring energy on the campus

Looking forward to have you in the SRMIET family.

Awards and recognition

And we have proven ourselves yet again!

We are proud to announce that our hardwork, patience, dedication and passion has been recognised once more as SRM IET On Campus gets selected for the top 5 finalists for the prestigious Group Of The Year award . - April 2018 to April 2019.
We are also proud to have yet another feather added in our crown of recently won Chennai local network Awards:
- Dynamic Group of the year
- Iconic event of the year

SRMIET - WORKING TO ENGINEER A BETTER WORLD

BY RIYA

Champion Engineering isn't a title that comes easy, it takes a community that deserves to hold it high. The Institution of Engineering and Technology (IET) is just the perfect candidate for this weight. IET may seem to be a bit confusing at this point, so let's clarify. It represents the engineering profession in matters of public concern and assists governments to make the public aware of engineering and technological issues. As a diverse home across engineering and technology, IET shares knowledge that helps make better sense of the world to solve the challenges that matter. To bridge this distance between IET India and the IET student members of SRM, the SRMIET On Campus was formed. With events like Conception, Hackquest 3.0, Hackathons, Ideathons, and Mechathons, SRMIET continues to focus on providing students with a platform from which they can truly rule the world.

SRMKZILLA

Hello world!

Nerdy techies with code editors, developers fixing bugs, and everything "geeky" might be the typical image for a college technical club. Well, SRMKZILLA is a LOT MORE than just a technical club. We are a hub of unique ideas, incredible tech products, resourceful events, quality mentorship, and endless creativity.

SRMKZILLA is a part of the Mozilla Clubs, inspired by the Mozilla Learning Network. Being a professional technical club of SRMIST, we help students master various skills through our open source projects, web and app development, technical fests, and workshops. We as a club want to push technology to its limits which is why all our products are open source. It's free and accessible for everyone.

What's brewing?

Let us take you on a mini ride through our delightful designs, splendid products, and our wholesome workshops. From launching our very own URL warehouse to a premium music bot, we have got something that'll speak to everyone's soul.

We've also hosted state of the art events like:

MOZOFEST: A three-day fiesta with fun and frolic
MOZOHACK: An exciting 24-hour hackathon
Tech troduction: A six-day workshop on the major domains in technology.
Hacktoberfest: Venturing with the open source spaceship
Money Mine: To make sound financial decisions

We've unfurled the power of open source through:

- **KZILLA.XYZ:** A powerful snappy URL shrinker
- **Mosaic:** A web extension to create the perfect colour palettes
- **Billboard:** A facelift to the faceless links
- **Springboard**: A hot to trot boilerplate for the tech stack in projects
- **Octavia:** The coolest music bot in the Discord town.
- **Links:** The solution to all your URL clutter.

We at SRMKZILLA are determined to create a space for open source products and continue exploring the potential of our student community. With a lot of innovative products lined up, we are excited to innovate and create! Follow us on our socials to stay in the loop.
We make tech exuberant and open source. We know no limits.

SRMKZILLA MONEY MINE EVENT – CA$H IS KING

BY RIYA

They say, "Money is not God, but it is not less than God." While you may be at odds with this saying because of the infamous "Money is not everything." We assure you that being financially literate will surely help you through the rough patches each one is sure to go through. It allows an individual to be better prepared for specific financial roadblocks, which, in turn, decreases the chances of personal economic distress. Achieving financial literacy is crucial in today's society due to everyday facets of life, such as student loans, mortgages, credit cards, investments, and health insurance. With this in their eyes, SRMKZILLA, the official Mozilla Campus Club of SRMIST organized the 'Money Mine Event'. Although the event was conducted on YouTube, participants were extremely enthusiastic, and the Q&A segment was flooded with questions. Topics were presented in an interesting and easy-to-understand manner. As a result of such positive feedback, we sure can expect more such events in the future.

PUBLICATIONS

BY SAMUDRA

Awards do not only acknowledge success; they recognise many other qualities: one's ability, struggle, effort and, above all, excellence. Awards contribute towards Visibility, Validation, Testimony, Reputation and Differentiation. Awards and accolades are pivotal in a student's life. Even the slightest recognition works as a great motivation for both the students and the faculty; it also encourages them to work even harder and sincerely. Recognizing students with awards and certificates make them and their work stand out which again motivates them and attracts other students to work harder. Awards and accolades vastly influence students even after their college life. Apart from being just mementos and symbols of their achievements and appreciations, they also contribute to their career. They stand as proof of how dedicated and sincere they were in the task assigned to them.

PUBLICATIONS

1. Priya S, Dr. R. Annie Uthra, " Deep learning framework for handling concept drift and class imbalanced complex decision-making on streaming data" Complex & Intelligent Systems, July 2021.

2. C. Arun, Dr. C. Lakshmi "Genetic algorithm-based oversampling approach to prune the class imbalance issue in software defect prediction", Soft Computing, August 2021.

3. B. Jothi, Dr. M. Pushpalatha," A novel optimized Bat Extreme Learning intrusion detection system for smart Internet of Things networks", International journal of communication systems, Feb 2021.

4. Dr. E. Poongothai, Mariammal, Dr. Suruliandi, Dr. S. P. Raja, "Prediction of Land Suitability for Crop Cultivation Based on Soil and Environmental Characteristics Using Modified Recursive Feature Elimination Technique With Various Classifiers" IEEE Xplore, Oct 2021.

5. Dr. T. R. Saravanan," A hybrid fuzzy weighted centroid and extreme learning machine with crow-particle optimization approach for solving localization problem in wireless sensor networks", International journal of communication systems, April 2021.

6. A. Alice Nithya, Ishwarya, "Performance-enhanced real-time lifestyle tracking model based on human activity recognition (PERT-HAR) model through smartphones", Journal of Supercomputing, September 2021.

7. M. Maheswari, R. A. Karthika "A Novel QoS Based Secure Unequal Clustering Protocol with Intrusion Detection System in Wireless Sensor Networks", Feb 2021.

8. J. Jeyasudha, G. Usha, "An Intelligent Centrality Measures for Influential Node Detection in COVID-19 Environment", Wireless Personal Communications, May 2021.

9. S. Aruna, Dr. G. Usha "A novel implementation of predictive learning classifier and adaptive chaotic s-box for counterfeiting side channel attacks in an IOT networks", Personal and Ubiquitious Computing June 2021.

10. D. Anitha , R. A. Karthika, "DEQLFER — A Deep Extreme Q-Learning Firefly Energy Efficient and high performance routing protocol for underwater communication", Computer Communications, April 2021.

11. Dr. M. S. Abirami, B. Vennila, K. Suganthi, Sarthak Kawatra, Anuja Vaishnava, "Detection of Choroidalneovascularization (Cnv) in Retina Oct Images Using Vgg16 and Densenet Cnn Genetic algorithm-based oversampling approach to prune the class imbalance issue in software defect prediction", Wireless Personal Communications, September 2021.

12. Prakash UM, Dr. Kottilingam K, Korhan Cengiz, UtkuKose, BuiThanh Hunge "4x- expert systems for early prediction of osteoporosis using multi-model algorithms", Measurement, August 2021.

13. Dr. B. Hariharan, R. Siva, S. Kaliraj, P. N. Senthil Prakash, "ABSO: an energy efficient multi-objective VM consolidation using adaptive beetle swarm optimization on cloud environment", Journal of Ambient Intelligence and Humanized Computing, August 2021.

"AWARDS AND CEREMONIES ARE ALL AN APPLAUSE OF DISCIPLINE."

– SUNDAY ADELAJA

An award makes people feel that their work is valued. It shows approval and gratitude for an individual's work, and it makes people aware that good work will be rewarded. It shows others, such as the general public and other staff members, that you're aware of their outstanding accomplishment. So we at the Department of Computational Intelligence express our gratitude and recognise every one who have brought distinction, notability and recognition to our department.

PLACEMENTS

BY SAMUDRA AND AFROZE ALAM

In the present era, campus placement holds a great importance for students and educational institutions. While, it helps a student in building a strong foundation for the professional career ahead without facing the real-world job struggle, peer-competition or family pressure, a good placement record gives a competitive edge to an institution.

Campus placements provide the students with a foot-in-the-door opportunity, enabling them to start off their career right after they have completed their course curriculum. Furthermore, they get to interact and engage with the industry professionals during the placement drives, which further help them to lay a solid foundation for their prospective career in the future as they familiarize with potential contacts from their chosen career field.

The students of the Department of Computational Intelligence have excelled in the field of placements which is substantiated by the following accounts.

Firstly, we have Harsh Gour who was placed as a Full Stack Developer in the Rich Panel through SRM placement. CTC: 20 LPA

Secondly, we have Anmol Jha who managed to snag a placement in pay pal. CTC: 23.75 LPA

Then we have Swaroop Nandy who earned himself a well deserved placement in Bajaj Finserv. CTC: 12 LPA

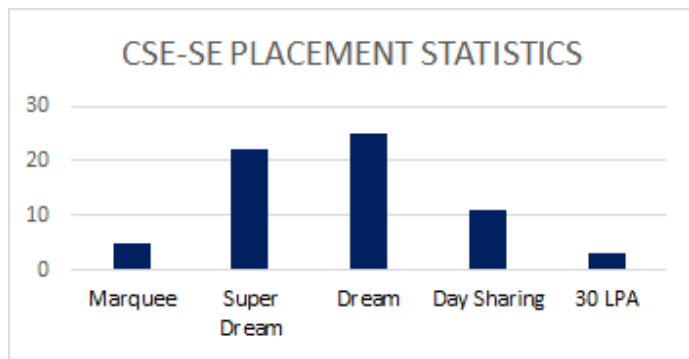Then we present to you, Vishad Thusu who managed to get a chance to work in Hyper Verge. CTC: 10 to 12 LPA

Then we have Atul Gopinathan who rewarded himself with a decent placement in Arista Networks. CTC: 12 LPA

We are very happy to let you know about Aryan Vats who gained an opportunity to work with Fidelity Investments. CTC: 12.93 LPA

This never ending list involves Shrikumar Shankar who got placed in Bajaj Finserv. CTC: 12 LPA

CSE-SE PLACEMENT STATISTICS

CINTEL_Students Statistics

- Placement
- Higher Studies
- Entrpreneur

14.1%

84%

CSE-SE OFFER STATISTICS

Placement Statistics At a Glance

- Multiple offers
- Internship Offers(High Radius,Siemens,Dell,Optum)
- Marquee
- Super Dream
- Dream
- Day Sharing
- 30 LPA

2%
6%
28%
26%
15%
19%
4%

CSE-AI/ML PLACEMENT STATISTICS

CSE-AI/ML OFFER STATISTICS
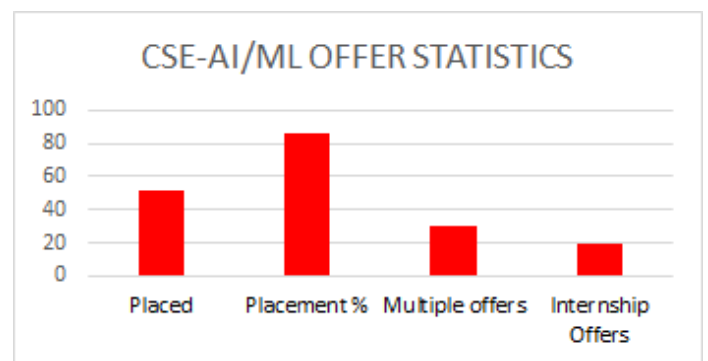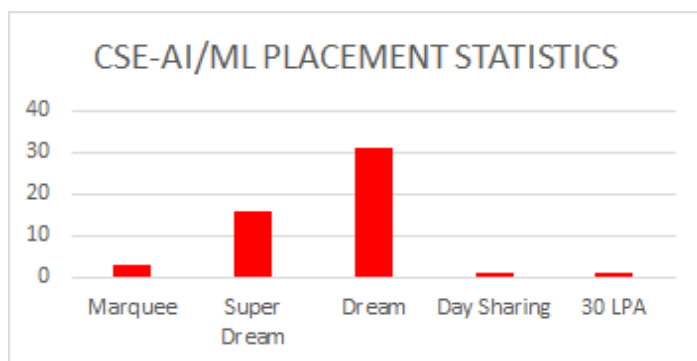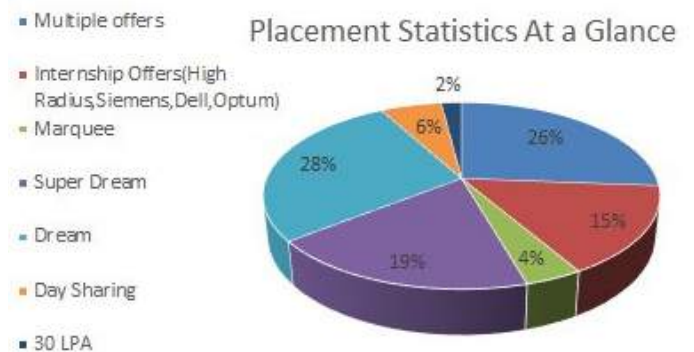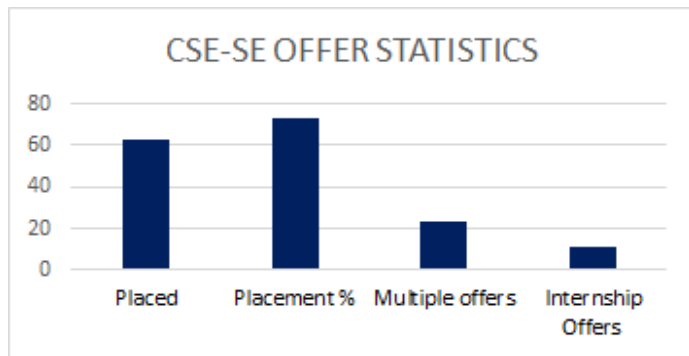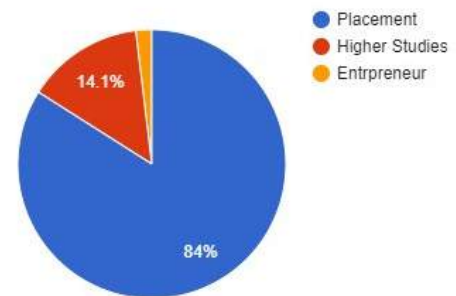
AADYA SAHAI
REG NO: RA1811033010072

Company: Amazon

I got to know about the company through the internship placement cycle of the college. They had come to hire for internship leading to placement offer.

The college assisted us by conducting lectures and providing learning material focused on Amazon. This helped me understand the selection process and gave me a clear idea on how to prepare myself for the same.

The recruitment process involved three stages all of which were elimination rounds. The first round was an online assessment which comprised of MCQs and coding questions. The second and third rounds were technical interviews. The questions revolved around my resume and coding and computer science fundamentals relevant to the role.

PATENTS, MOU, FUNDED & CONSULTANCY

The Department of Software Engineering has been maintaining strong ties with reputed software industries which elevates the department into a much stronger technical team. As a result of which the Department of Software Engineering discussed with the research team from Tata Consultancy Services, supported by a technically renowned foreign delegate Professor Anthony Lattanze and a professor at the Institute for Software Research (ISR) at Carnegie Mellon University (CMU). The main agenda of this discussion was on the latest revolutionary technology boom, the "Internet of Things". It leads to mind-boggling ideas which are needed in today's world. The team specially discussed the collaborative work that can bring educational institutions, involving both faculty and students and working in a close call with software industry professionals. This suggested working style can bring about a new revolution in the research frontier of the Department of Computational Intelligence leading it to global standards.

Patents Filed:

1. "The Investigation technique of object using machine learning and system", R. Kaviyaraj, Amritha, C. G. Anupama, S. Aruna, Maheswari M, Anitha D, Saranya A et. Al, Australian Patent, 14th June 2021.

2. "A System for Validation of Webservices and A Method Thereof", G. Senthil Kumar, S. Samusudeen, May 2021.

3. "Internet of Things Enabled Smart Agriculture System for Fruit Production", Dr. S. Selvakumarasamy, Dr. S. Karthick, Mr. C. Arun, Mr. S. Joseph James, Mrs. C. G. Anupama, Dr. T. Sabhanayagam, Dr. J. S. Sudarsan, 22 Jan 2021.

Patents Published:

1. "Diabetes Monitoring Patch for Visually Impaired Persons Using Artificial Intelligence", Dr. Revathi, January 2021.

2. "Analysis of Network Susceptibility Using Machine Learning", Dr. A. Vijayakumar, Dr. S. Sadagopan, Dr. G. Prakash, Dr. S. Vijayalakshmi, Mr. MV Ranjith Kumar,
20th August 2021.

MOU:

1. Deakin University, Australia to conduct one credit course on "Theoretical Machine Learning" handled by Dr. Gang Li, Faculty Coordinator: Dr. Annie Uthra

2. Subtle Medical INC, California to conduct one credit course on "Computer Vision Implications for Industrial Applications", by Mr. Srivathsa Pasumarthi, Machine Learning Engineer, R&D., Faculty Coordinator: Dr. Annie Uthra

Funded Project:

Dr. Annie Uthra, received a grant of Rs. 2.38L for "Log Based Equipment Monitoring inside Ships APP Development for NORNICO", Samsung AI Expandability for Causal Lenses.

Consultancy Projects

1. "Video Annotation Tool", Flutura Business Solutions Pvt. Ltd., Faculty Coordinator: Dr. Alice Nitya

2. "Welding Defect Detection and Analysis Product", Flutura Business Solutions Pvt. Ltd., Faculty Coordinator: Dr. Alice Nitya

3. Advisory consultancy project for Sivaraj Construction Company at Chennai, Project name: "An IOS based application developed for Construction Company", Faculty Coordinator Dr. Krishnaveni

4. "A vision Sensor system for Quality parameters check of a precise machined component", Ministon Engineering Services, Faculty Coordinator: Dr. N. Snehalatha.

5. "Explainability through casual Lens" Samsung Prism, Samsung, Bangalore, Faculty Coordinator: Dr. R. Annie Uthra.

6. "Log based equipment monitoring app development", NORINCO Private Limited, Faculty Coordinator: Dr. R. Annie Uthra.

7." Contrastive Explanations development", Samsung Prism, Samsung, Bangalore, Faculty Coordinator: Dr. Saad Yunus.

8." NLP Expert systems for Customer review and Recommendation", Hair & Compounds, , Faculty Coordinator: Dr. M. Kottilingam.

9." Record and Play Utility Mobile App Testing", Samsung, Faculty Coordinator: Dr. M. Vimaladevi

10." RL GYM for system", Samsung Prism, Samsung, Bangalore", Faculty Coordinator: Mrs. Jackulin Mahariba

11." Explainable reinforcement learning", Samsung Prism, Samsung, Bangalore, Faculty Coordinator: S.Karthick

12." Real Vs Recorded / Artificial Sound Classification Engine", SamsungPrism, Samsung, Bangalore, Faculty Coordinator: Dr. G. Margatham

13. "Samsung PRISM Project XGDAI: Contrastive Explanations development end review", Samsung: Dr. Saad Yunus Sait
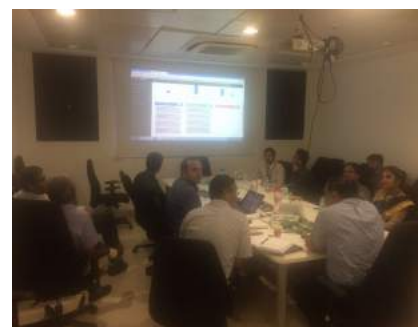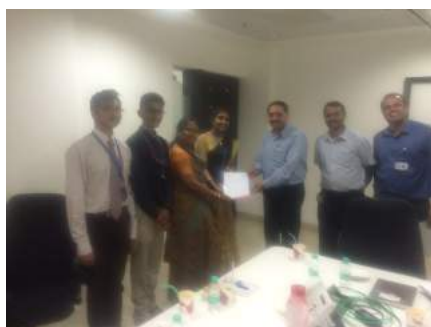
STUDENT ACHIEVEMENTS

BY SAMUDRA

Achievement, goals and emotions are crucial determinants of students' learning processes and have an impact on academic outcomes. The interplay between achievement and its effects in academic settings has been an integral part of education since its beginnings. We the students of the Computational Intelligence Department have managed to attain several accolades in various competitions and conventions.

ACHIEVEMENTS

- IEEE-ICETCI 2021 had organized a Virtual Competition in association with RRSCCentral, NRSC, ISRO, Nagpur on 'Machine learning based feature extraction of Electrical Substations from Satellite data using Open-Source tools', which was held from 1 March to 30 July 2021. Ved Prakash Dubey a student of third year managed to attain third position.

- We also have Aniket Agarwal, a third year student, who acquired the fourth position out of 80 plus teams from Bangalore region in the Stellar Local Lead International Space Apps Challenge.

- Then there is Vaibhav Mishra a third year student who is a finalist in Internathon.

- A third year student Satyam Verma who not only secured a two months paid Internship in a Fortune 500 Company [Renault (rank-219) - Nissan (rank-116)] but also obtained a Hackerrank Certificate on Python (basics) .

- They are followed by Sejal Kumari Gupta. a third year student who succeeded in completing the humongous task of Building a face recognition application using python as a part of AI-For-India Event.

- Chandra Prakash Singhi and Shweta Rajan Nambissan both third year students who managed to secure a Hackerrank certificate and Verzeo Android App Development respectively.

- Sayantan Sarkar who is still in her third year and is a Finalist at TechGig CodeGladiators 2021 Finale. He Secured a global rank of 232. A total of 1k+ coders participated in the finals.

- Well we have more talented people among us, Bhairav Phukan; also in his third year and his team won the 2nd prize and a cash prize of $800 in the 2021 ASME-CIE International Hackathon organised by American Society of Mechanical Engineers.

- In drawing things to a close we have Sakshi Choudhary a third year student who attained Third Place in IIT Bombay's Prestigoius National level Ed-Tech Hackathon 2021 and was awarded with a prize of 40K INR.

STUDENT ACTIVITIES

- To get the ball rolling, we have the incredibly talented Rusali Saha who participated in NITP Hack 3.0, Electrothon 3.0 and Azure AI based on the topic of AI, Machine Learning, Deep Learning - MonPrix.

- Secondly, we have Srijarko Roy and Indira Dutta who participated in HackSRM3.0 and SIIC Defence Hackathon. Srijarko Roy secured the second position in and SIIC Defence Hackathon with a cash prize of Rs. 15000.

- Coming up next is Subhasri Srinivasan who took part in Amazon ML Hackathon and IIM Bangalore international business summit.

- To conclude we have Pushpesh Kamal, Sai Nikhil Perumalla and Sankalp Jain, who partook in SMART (3.0), Hackathon and an internship respectively .

1. Mr. Goutham (RA2011047010005), 2nd year B.Tech AI, won the title "Smart Coder" at Let's Code Coimbatore, April 2020.

2. The team of three students Ms. Janavi Dharbhamulla, Sounak Singh and Kruthi from 2nd year B.Tech AI, Runner up at Featurethon Season-2, May 2021

3. Kush Bhargav Sah (RA2011033010167)
   - Secured third position in hackathon conducted by Adobe.
   - Awarded by Gihub
   - Appreciation in Access Denied '21 - online Hackathon.
   - Created his first AR effect in spark AR Labs India Challenge.
   - Expert talk in Tech -A-month 2.0, IEEE Chandigarh student branch.
   - Completed level 1, level 2, level 3 of the course 'C Programming' in elab.

4. Eshaan Bhargav (RA2011033010146) developed snake game application using python (pun intended).

5. Varshish Mohan won Third prize in Hackathon conducted by Think-Digital from 1st May 2021 to 2nd May 2021.

6. Janak Bhaiya successfully completed fitness for a cause 20km cycling event"

"A DREAM BECOMES A GOAL WHEN ACTION IS TAKEN TOWARD ITS ACHIEVEMENT."
— BO BENNETT

So we at the School of Computing ask you to join us in commiserating, applauding and commending these very bright young minds who have brought honour and glory to the Department of Computational Intelligence.

FACULTY ACHIEVEMENTS

BY KASHISH

It is not an exaggeration to say that a great teacher can change a student's life. As some of the most influential role models for developing students, teachers are responsible for more than just academic enrichment. SRM University has one of the best faculty who are committed to their students' well-being both inside and outside the classroom. By forging strong relationships, educators are able to affect virtually every aspect of their students' lives, teaching them the important life lessons that will help them succeed beyond term papers and standardized tests. So we the students of the department of computational intelligence are proud to showcase the various awards and honours bestowed upon our exceptional faculty.

Books Published

1. Dr. C. Amuthadevi published book on " Straight Talk to Data Science" Notion Press Pvt., Ltd, 2021

Guest Lectures Delivered

1. Dr. Annie Uthara at Henan University of Economics and Law, China May 2021
2. Dr. Kottilingam as Resource Person for ATAL WORKSHOP, Tamil Nadu, June 7th to 11th.
3. Dr. Kottilingam Coordinated and Invited Mr. Melvin Jhonson, Scientist, Google Inc, USA. April 2, 2021 for Talk on Deep Learning for NLP.
4. Mr. Arun at Anna University sponsored Faculty Development Training Programme on "Problem Solving and Python programming July 2021.

Online Courses Completed

1. Dr. S. Karthick, NPTEL Course on "Object Oriented Analysis and Design" - IIT Kharagpur with elite certificate, October 2021
2. Dr. Selvakumarasamy, NPTEL Course on "Object Oriented Analysis and Design" - IIT Kharagpur October 2021
3. Mr. Arun C, NPTEL Course on "Object Oriented Analysis and Design" - IIT Kharagpur October 2021
4. Dr. Maragatham acquired a NVIDIA - Certificate of Competency - Fundamentals of Deep learning (9th September 2021)
5. Dr. G. Senthil Kumar, AWS certified cloud practitioner, Coding for cloud, Introduction to cloud computing and Agile with Atlassian Jira4.
6.Dr. A. Revathi, NPTEL on "Programming in JAVA" with elite certificate in the month of April 2021
7. Mr. Joseph James, NPTEL Online course on Introduction to Machine Learning, October-2021
8. Dr. M. S. Abirami, "Introduction to Internet of Things - NPTEL Online course Completed" - Jan to April 2021
9. Dr. A. Revathi, NPTEL Online course on Programming in Java with elite certification, April 2021

Virtual Labs

Dr. G. Senthil Kumar Configured AWS virtual labs for School of Computing Students. The labs that were configured are:
1. AI lab (1744 students)
2. DBMS lab (1623 students)
3. Computer Networks Lab (1913 students)
4. Foundation of Data Analytics (136 students)

Recognitions

1. Ms. Anupama C. G. was awarded "Young Aspiring Teacher", from IET
2. Dr. T. R. Saravanana appreciation for the reviewer for IEEE conference Mysuruocn 2021

ALUMNI MESSAGE

BY KATYAYANI

There is no better feeling than witnessing a college alumni becoming an expert on the future that we so greatly desire, mind you. expert advice is never a thing to be taken lightly. The fruitful opportunity of interacting with these accomplished alumnus is only possible through the joint efforts of the Department of Computational Intelligence, SRMIST, KTR, and the Directorate of Alumni Affairs (DAA).

Various talks by our alumni guide us on the requirements needed to successfully navigate our way through the ever-expanding world of technology and through the tantalizing opportunities it promises us. And as they say, it never hurts to look forward to a rich and glorious future that awaits us all.

For me, SRM has been an emotion. It has been a place that gave me wings to fly. I am Kanngi Mahajan, currently working as Technical Manager and Lead Mobile Application at IBM, Canada. I pursued my Bachelors in Software Engineering from SRM, Kattankulathur, Chennai, India (2012- 2016). Like many others, I had an aspiration to be a Software Engineer. I belong to Jammu and Kashmir, coming to Chennai was definitely a bold decision that I made and today I don't regret a single bit of it. In fact, being away from home is definitely hard, but it does makes you Independent and strong, it make you good enough to go and face the challenges that will come your way.

Four years at SRM taught me so many different things, made me technically strong, I think subjects like data structures and algorithms, machine learning, artificial intelligence boosted up my interest to pursue Masters in Canada. My teachers at software engineering definitely helped me lay down those fundamentals, all it needed was polishing that Masters definitely fulfilled. I feel its not only the technical knowledge that was inculcated in me, it was also the overall personality development, I remember taking PD classes and always wondering "Oh! I have to go walk on that stage and describe myself" but that carved me into a diamond. Besides the courses, I was mostly up for extracurricular, public speaking was one of them and thanks to tons of opportunities and exposure that SRM brought my way, today I am always ready to do any difficult presentations anywhere I need to, sometimes even when I am not prepared. Speaking at TP Ganesan Auditorium is still one of my favourite memories, after all it's one of Asia's largest auditoriums, that I had an opportunity to speak in.

Pursuing Masters in Canada and getting post graduate degree lies on the foundation of my bachelor's at SRM. Even today, I proudly talk about the accomplishments, being a part of great technical fests like Aaruush, Milan, leading and being a part of Firefox club, organizing department events, mentoring and guiding my juniors has been some of the cherishable moments of my life, hence I say SRM is an emotion. Teaching was also something I was passionate about seeing my professors, when given a chance I always used to take up some presentations and used to help out my classmates. I think that definitely led me to be an industry professor at Saint Mary's University in Canada where I teach students mobile developments besides my job at IBM.

For those who are joining SRM or aspire to, the only thing I would echo is believe in yourself, there will be times where you would want to give up, as you are away for from home, but trust me soon all those are gonna be moments you are gonna look back and laugh at. Step out of your comfort zones, as they say, growth and comfort do not co exist, go explore the world out there, be hungry to learn and most important of all make some good friends and don't forget to have some fun because in the end that's definitely something you will carry throughout in your memory bag.

On 16th July 2021 a webinar on "Beginning a Career in UI/UX" was held in which Er. Jeyavidhi Kumar imparted her well-versed-in knowledge of User Interface, User Experience and current technologies, designs and opportunities in the UI/UX industry.

Er.Jeyavidhi Kumar, B.Tech SWE, 2018 batch
Engineering Analyst
Wells Forgo International Pvt. Ltd

On 10th August, an Online Alumni Conclave on "Current Technologies and Career Opportunities for Software Engineering and Artificial Intelligence in I.T Industries" was organized which brought forth the valuable experience and know-how of our accomplished alumni in the form of various presentations and talks to over 60 students of SRMIST.

Mr. Kishore Muruganandam of III B.Tech saw to the effective execution of the event. Our Alumni Mrs. Himaja Sushma Kodela, emphasized the significance of quality assurance, assuring consistency in QA, AI/ML in QA, and also highlighted AI vs. Automation.

Mr. Parth Sharma talked about the importance of Test Automation, its tools, and its future along with SDLC Roles.

Mr. Kishore Kumar K. addressed the students on how to "own your career" and choose one all the while busting career myths and explaining the apt skills and resources required to build a strong foundation of a career.
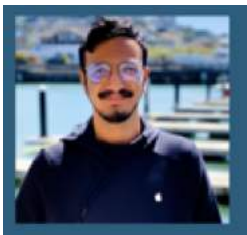
MAGESH SRIDHAR - 2019 BATCH
IOS DEVELOPER (SOFTWARE ENGINEER)
QVIA INC, ARIZONA, USA

The Department of Computational Intelligence, SOC organized an Alumni talk on " "The current state of iOS development and how to get started" covering different aspects of IOS Development with hands-on on 1st September 2021, Wednesday from 9.30 am to 11:00 am in the form of a webinar. Er. Magesh Sridhar addressed his life from SRM University towards iOS developer, Pros and cons of iOS development, Current state of iOS development, Resources and also given Hands-on training. In this session around 55 students participated from various departments of SRMIST. End of the Session students discussed with Er. Magesh Sridhar and get clarified their doubts.

ANKITA ACHARYA - 2018 BATCH
LEAD APPLICATION DEVELOPMENT ENGINEER
MERCATUS CENTER, ARLINGTON, VIRGINIA

The Department of Computational Intelligence, SOC organized an Alumni talk on " AWS Services and Terminologies" covering different aspects of AWS services with hands-on in AWS Lambda and Dynamo DB on 23rd August 2021, Monday from 9.00 am to 11:00 am in the form of a webinar. Er. Ankita Acharya addressed about AWS services, AWS Lambda and Dynamo DB, She also gave Hands-on training. In this session, around 75 students participated from various departments of SRMIST. Towards the end of the session, students discussed with Er. Ankita Acharya and got clarified their doubts.

CONFERENCES AND WEBINARS

BY SAMUDRA

A workshop requires participants to take a hands-on approach to immediately implement the skills they are learning. Workshops provide insight into diverse topics and motivate students to explore new areas of interest. This form of learning is particularly appealing for students, as it can be easily tailored to address varying needs, and it complements curriculum-based learning. Nowadays, the market is very much demanding and we often come across the issue regarding the level of higher education not meeting the industry expectation. To bridge this gap and equip the students of the current generation with new-age technologies, seminars and workshops play an imperative role.

So here are some of the workshops conducted by the Department of Computational Intelligence.

The first workshop of the semester was Practical Foundation on Artificial Intelligence and Deep Learning workshop was conducted by Dr. R. Annie Uthra, Dr. Ferni Ukrit from 6th to 8th September 2021.

Secondly, the Online Workshop on Artificial Intelligence and Machine Learning Application in Healthcare organised by Dr. Annie Uthra, Dr. T. S. Shiny angel, and Dr. G. Senthil Kumar during the 15th and 16th of September to disseminate information on Artificial Intelligence, Machine Learning and Hands-on Application in Healthcare. This workshop will have four sessions spread over two days with Expert Lectures, Discussions, and Practice on different tools.

Following this, we had the workshop on the Industrial Impact of Artificial Intelligence in Cloud Convened by Dr. R. Annie Uthra and the coordinators Dr. T. R. Saravanan and Mrs. A. Jackulin Mahariba on the 23rd and 24th of September 2021 with an outcome to address the challenges available in traditional manual dataset processing faced by research scholars and students and converted to cloud-based dataset processing using Artificial Intelligence tools. How the Tokens of the online dataset are extracted and then exported to the cloud.

Followed with was a workshop on Insights of Federated Learning in Computing by Dr. Revathi and Dr. Annie Uthra, from 24th to 25th of September 2021 with an objective to provide an insight into the recent trends, research avenues, and other aspects relevant to federated learning.

The Webinars on the innovation on AWS services by Dr. Annie Uthra, Dr. T. S. Shiny Angel and Dr. G. Senthil Kumar in the month of August.
Workshops have proven to be a successful activity for both the faculty and the student body. Apart from enhancing the technical and analytical skills of participants, the workshops have shown that they provide unanticipated skills not easily available through the regular curricular programs.

WORKSHOP ON EFFECTIVE COUNSELLING
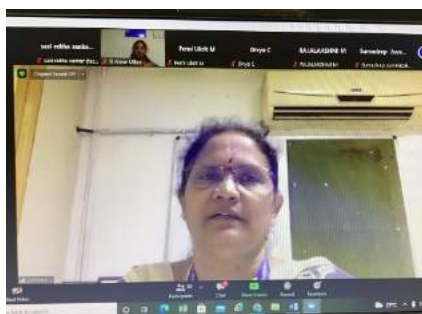
PRACTICAL FOUNDATION ON ARTIFICIAL INTELLIGENCE AND DEEP LEARNING
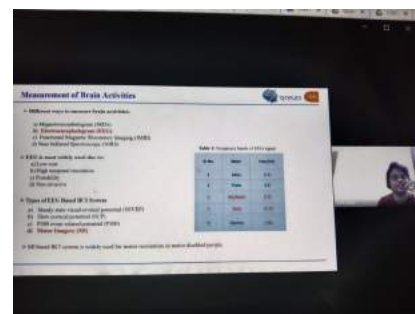
WORKSHOP ON Q-NEURO

FACULTY CORNER

SKIN-CLOSE COMPUTING AND WEARABLE TECHNOLOGY

Wearable technology is a term used to describe a group of electronic devices that can be worn as accessories, embedded in clothing, or implanted in the user's body, its advantages, application areas, state of art developments in this area, required material and technology, possible future applications including cyborg (a human being whose body has been taken over in whole or in part by electromechanical) developments and the need for this sphere of influence in the future. The scope encompasses three major components, wearable computing (next generation of conventional computing, ergonomics), wearable technology (medical support, rehabilitation engineering, assistive technology support devices, army/combat usage) and allied technologies (miniature components, reliability, high performance integration, cyber physical systems, robotics).

BY

DR. B. HARIHARAN
ASSISTANT PROFESSOR / CINTEL

DR. R. SIVA
ASSISTANT PROFESSOR / CINTEL

DID YOU KNOW?

BY DR. B. HARIHARAN
ASSISTANT PROFESSOR / CINTEL

Does internet use cables or satellites?

The world's internet is connected by underwater fiber-optic cables. There are close to 750,000 miles of cable that connect the different continents around the world. Multiple companies share their resources and collaborate on underwater cable projects which will then be shared between the companies

What is the Length of Submarine Cable?

Today, there are around 380 underwater cables in operation around the world, spanning a length of over 1.2 million kilometers (745,645 miles). Underwater cables are the invisible force driving the modern internet, with many in recent years being funded by internet giants such as Facebook, Google, Microsoft and Amazon.

Who is allocating you IP address?

IANA - The Internet Assigned Numbers Authority is a standards organization that oversees global IP address allocation, autonomous system number allocation, root zone management in the Domain Name System, media types, and other Internet Protocol-related symbols and Internet numbers
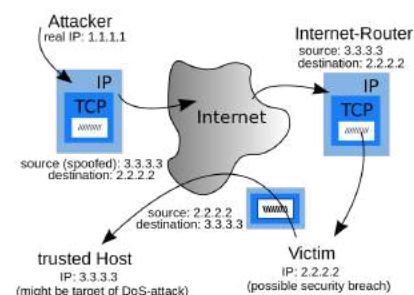
What is the typical size of a data center?

Approximately 100,000 square feet = Two Football Ground Size Data Centers are of Different Sizes.
The average data center occupies approximately 100,000 square feet of space.

ft. a student

STUDENTS' CORNER

BY YUVRAJ AND RIYA

One often finds themselves mindlessly flipping through the pages of a newsletter, wishing they might come across a students' corner. Well, here it is, the page you've all been waiting for, since it reveals to you the creative potential residing within each and every one of us. When we strive to solve it, we get a sense of superiority, a confidence that boosts our self-esteem, makes us happy about ourselves. Now is the time for you to showcase your creative talent on this page with a variety of intriguing items. Go ahead and answer some fun puzzles, read some mind blowing stuff delivered to you from a top-secret location.

FIVE WEIRD BUT COOL INVENTIONS

BY YUVRAJ

ERASABLE NOTEBOOK (ROCKET NOTEBOOK)

Tired of buying new notebooks but detest the feel of whiteboards? We've got the perfect thing for you guys! *drum roll* "Reusable notebooks" Sometimes known as erasable notebooks or digital notebooks, are notebooks that may be wiped and reused several times. With only a simple scan, you can quickly transfer most of these notebooks to your computer. You may save your notes to Google Drive, Evernote, Dropbox, and other cloud storage services.

IMAGICHARM

The imagiCharm is a cute, smart accessory that you can use the imagi app to programme to appear different every day. It may be worn on backpacks, bags, or as a keychain to help you learn to code and show off your ideas to the world. The imagiCharm features 64 lights that can be programmed to create a variety of patterns and animations!

3D PEN

A dream come true would be making castles in air. Can't it's a dream if it already exists though ;) A 3D pen is a pen with a nozzle that extrudes hot or warm plastic. There is no software required. And no files to move or even some too complicated technology to set aside time to understand.
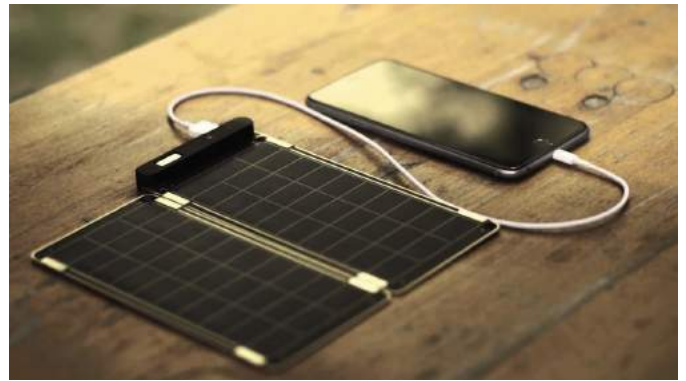Literally whatever you conceive, you can draw.

PRINCUBE

Print anywhere, anytime. Need a personalized mop for the floor? PrinCube's at your service! PrinCube is the world's only full-color portable printer. It makes use of the most up-to-date 3-Color Thermal Ink-jet Technology for vibrant colour printing. With lifelike, full-color printing on any surface, the portable printing experience has been enhanced. PrinCube allows for multi-line printing. Pretty cool, huh?

SOLAR PAPER

"Sun, sun all around, not a percent in my phone's charging ground." Bad poetry, but I swear the item is amazing. Yolk's Solar Paper is the world's first solar power charger that fits within a notepad or planner. It's a solar charger that's as thin as paper and extremely light. Features of the product: On a bright day, the Solar Paper charger can charge your smartphone in around 2.5 hours.

SUDOKU

MEET THE TEAM

STUDENT WING

ADVAIT SINGH
PRESIDENT

RIYA BATLA
VICE PRESIDENT

MUNSHI AFROZE ALAM
B.TECH CSE
(SPECIALIZATION IN AI/ML)

SAMUDRA BANERJEE
B.TECH CSE
(SPECIALIZATION IN SWE)

YUVRAJ
B.TECH CSE
(SPECIALIZATION IN SWE)

SANSKRITI SINGH RAJPUT
B.TECH CSE
(SPECIALIZATION IN SWE)

KATYAYANI
B.TECH CSE
(SPECIALIZATION IN SWE)

KASHISH
B.TECH CSE
(SPECIALIZATION IN SWE)

TUSHAR ROY
B.TECH CSE
(SPECIALIZATION IN SWE)

DEVMALYA
B.TECH CSE
(SPECIALIZATION IN AI/ML)

FACULTY WING

Dr. B. AMUTHA
PROF, COMPUTING TECHNOLOGIES
NEWSLETTER HEAD, SCHOOL OF COMPUTING

Mrs. ANUPAMA C. G.
ASSISTANT PROFESSOR, CINTEL

Mrs. D. ANITHA
ASSISTANT PROFESSOR, CINTEL

Dr. E. S. MADHAN
ASSISTANT PROFESSOR, CINTEL

"அறிவுஅற்றம் காக்கும் கருவி செறுவார்க்கும் உள்ளழிக்கல் ஆகா அரண்"

"Knowledge is a tool to prevent destruction; it is also an indestructible instinct for hostility."