SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

October 2023

COLOSSAL

VOLUME 3
ISSUE 1

CINTELASSOCIATION

DEPARTMENT OF CINTEL
Software that can think

THE DEPARTMENT OF COMPUTATIONAL INTELLIGENCE

School of Computing

TABLE OF CONTENT

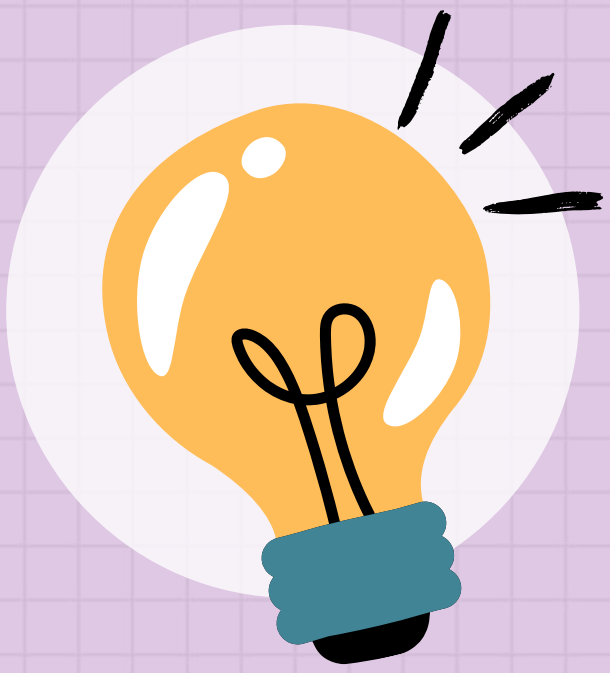
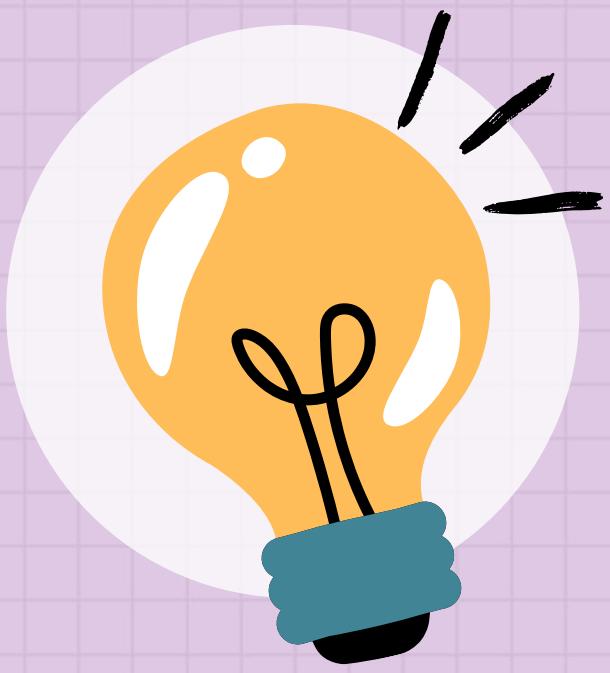


TABLE OF CONTENT



EDITOR'S VOICE

'The world's best Stories are yet to be written'

Dear Comrades,

Of the many strengths in the department, we have the faculty, the students as a crew forms the backbone and the bloodstream for the entire growth of the department. Though great stretches folded the entire department, we found many more collections and action ties up with data,data,data in profound fields.

The story of this newsletter gives a sense of finality and contemplative closing moments of our achievements in the last quarter. I am wondering about exhibiting the story' board, with a most prudential aspects of designing the interiors of the department's activities by brushing and painting the walls of the storyboard.

I record my gratitude to our higher authorities, the chair, the Head, contributors , the faculty, the students for putting their heads together to work for one theme. This newsletter becomes a reality due to my tireless editorial team.
Wishing the best for s bigger success and achieving newer heights in the coming future.
The department's best outcomes are yet to be telecasted.

B.AMUTHA

MRS.C.G.ANUPAMA

DR.D.ANITHA

DR.C.ARUN

Generative AI

Taking us to the future by showing it to us

AI has made major advances in recent years, notably in generative AI, which generates human-like material in multiple forms such as literature, images, and music. Generative AI differs from standard AI in that it focuses on creating fresh content by extracting patterns from large databases.

There are several real-world uses for generative AI:

1. Natural Language Generation (NLG)
2. Image and Video Synthesis
3. Creative Content Generation
4. Language Translation and Chatbots

The future is going to be significantly shaped by generative AI. Its potential is enormous, ranging from automating content generation to assisting with scientific research and problem-solving. The outcomes of researchers' ongoing efforts to push the limits of what generative AI is capable of are both thrilling and, occasionally, thought-provoking. However, ethical considerations arise since generative AI has the potential to fuel deepfakes and disinformation. Regulation and proper use are critical factors.

The Transformer architecture, as demonstrated by models such as the GPT-3, is a great example of generative AI. These models, which have been trained on large amounts of online text data, may create coherent and contextually appropriate text in response to provided prompts, allowing activities such as essay writing, coding, and storytelling.

-Dr. R Annie Uthra

TOP PLACEMENTS

BNY MELLON

Stipend 75000 pm

AADHYA MATHUR

KANUPRIYA JOHARI

KATYAL KRISH

GRACY ARORA

AKHILA S KUMAR

PARAS ATAL

NatWest

Stipend - 45,000pm

Adrika Kakoty

UTKARSH RASTOGI

JPMorgan Chase & Co.

Stipend 75000 pm

Diya Leela Varghese

HARSH KOTHARI

RIYA BATLA

BARCLAYS

Stipend 75000 pm

LIPIKA SONI

VUTUKURI KAVYA REDDY

TOP PLACEMENTS

Fidelity INVESTMENTS

Stipend- 35,000pm

ANUBHAV BHUTANI

BALAJI P

JOHAN MATHEW JOSEPH

SANCHITA AGRAWAL

RASHMI KUMARI

ANUSHKA CHAUHAN

PADALA T M ADI VENU GOPALA REDDY

NILESH SHARAN CHAUBEY

DHRUV CHOUDHARY

WELLS FARGO

Stipend- 90,000pm

KARAN PARGALj

Stipend - 35,000pm

MATHANGY

OUR TOP RECRUITERS

The placement season for the batch: 2019-23 has been continuing successfully. 500 out of 672 students enrolled for campus placement, 172 students opted for higher studies and 1 student is interested in entrepreneurship. Till date over 300+ companies visited for the placement and 253 offers has been issued to the students of CINTEL.

MARQUEE
10

SUPER DREAM
91

DREAM
123

TOTAL OFFERS
253

UNIQUE OFFERS
220

Midjourney

Taking us to the future by showing it to us

Midjourney, an emerging artificial intelligence program, has garnered attention within the creative community for its remarkable ability to transform written descriptions into visually stunning and avant-garde artwork. Employing diffusion modeling, the program introduces noise to an image, only to skillfully recover it by undoing the noise-generating process, offering a unique approach to visual generation.

Users find Midjourney accessible and versatile – a mere written description is all it takes to produce an array of images, from realistic landscapes and portraits to dreamlike scenes, or even in the distinctive styles of renowned artists like van Gogh and Picasso. The program allows users to select and edit from four image alternatives it generates, offering a dynamic and user-friendly creative process.

Already making waves, Midjourney has found applications across various fields. Artists embrace it for crafting original gallery works, designers leverage it for logos and product packaging, authors seamlessly incorporate images into their literary works, and gamers turn to Midjourney for the creation of captivating concept art for video games. Filmmakers, too, benefit from its capabilities for matte paintings and special effects in the cinematic realm.

As Midjourney continues its developmental journey, it stands as a potent tool with the potential to revolutionize art and design processes, democratizing creativity irrespective of artistic expertise. Looking forward, the program holds exciting possibilities, envisioning applications like personalized art experiences and interactive artworks that respond to audience gestures and emotions. In the dynamic landscape of AI-driven creativity, Midjourney is a trailblazer, signaling the transformative potential of AI in the realm of artistic expression.

Transformers

Taking us to the future by showing it to us

The transformative impact of transformers extends beyond their ability to parallelly process multiple input sequences, outshining traditional RNNs. The timeline includes significant milestones like the introduction of the original model, BERT, and GPT, marking the evolutionary trajectory of the transformer architecture. These milestones showcase the continuous refinement and advancement in the capabilities of these generative AI models, underlining their significance in shaping the landscape of artificial intelligence.

Widely applied in text and image generation, summarization, and voice synthesis, transformers excel in processing input sequences through self-attention and multiple-attention models. Their adaptability and efficiency make them indispensable in navigating the complexities of generative tasks, from capturing subtle linguistic nuances to unleashing visual creativity. The synergy of self-attention and multi-head mechanisms enables transformers to capture intricate patterns in diverse datasets, enhancing their performance across a spectrum of applications.

Moreover, the adaptability of transformer models extends to various industries, from healthcare and finance to entertainment and education, showcasing their versatility. As these models continue to evolve, the horizon of possibilities in generative AI expands, offering a glimpse into the profound impact they might have on various domains. The ongoing quest for compact transformers capable of handling intricate tasks promises an enthralling future, sparking innovation and redefining the boundaries of artificial intelligence.

STUDENT ACHIEVEMENT

- AI B-sec learners **Rahul Vyas** (RA2211047010096) and **Suriya** (RA2211047010098) received an internship offer letter from the Quentangle organisation.
- **Divjot Singh Manchanda** has been chosen for the IET Smart City Hackathon 2023 final round (RA2211047010131).
- **Charishma Yadav** has advanced to the IET Smart City Hackathon 2023 finals.

The Department of Computational Intelligence (CINTEL) School of Computing's second-year AIML students have had amazing success at the "Kavach Hackathon 2023." The members of the team were **Aahanaa Sharma** (RA2211026010458); **Vishruth Rajmohan** (RA2211026010470); **Daksh Kanotra** (RA2211026010456); **Srinivasan Sridhar** (RA2211026010508); **Aniruth Arcot** (RA2211026010449); and **Devangana Ghosh** (CTECH), mentor **Dr. GOPIRAJAN PV** Assistant Professor (RA2211003011430). *WON FIRST PLACE* in the "Kavach Hackathon-2023" (held August 7–10), organised by the Innovation Cell of the Ministry of Environment and Forests (AICTE) in collaboration with the Bureau of Police Research and Development (BPR&D) (MHA) and the Indian Cybercrime Coordination Centre (I4C) (MHA), Government of India. The team also received a CASH AWARD of Rs. 1,00,000.

- **Divjot Singh Manchanda** has been chosen to serve as the robotic head of the AI Next Gen Club (RA2211047010131).
- **PRABHATSINHA PRANAV** obtained NPTEL certification and software engineering internship certificates from JP Morgan and Walmart.
- **BHAVISHA** finished The Data Science and Introduction to Machine Learning courses on NPTEL Platform.
- **HARI VENKATARAMAN**- finished IIT Madras programming and data science course.
- **MUNNAM RAHUL VYAS and SURIYA M** won the Quantathon 1.1 – 2023
- **THARUN G B** - Cricket competition winner

STUDENT ACHIEVEMENT

- **Aryan's** paper, "EfficientNet: A Novel Approach to Model Scaling," was published in the DataX Journal. The post may be found at this link: https://medium.com/data-science-community-srm/efficientnet-a-new-approach-to-model-scaling-213a56b89b0
- ESRGAN-boosted DANet for Pristine Early Weed Segmentation in Motion Blurred Sorghum UAV Imagery Filed for Patent; Title Received Shortlisting for Smart India Team **Ankit Singh** (RA2111026010105), **Pratham Agarwal** (RA2111026010073), and **Mavika Reddy** (RA2111026010125) are the Hackathon event participants.
- SHORTLISTED FOR SIH TITLE "IDENTIFICATION OF DIFFERENT MEDICINAL PLANT/RAW MATERIALS THROUGH IMAGE PROCESSING USING MACHINE LEARNING ALGORITHMS" BY **VANSH PUNDIR** -RA2111026010090
- On September 15, 2023, AIML Y1 Section II year participants Tumati **Omkar Chowdary** (RA2211026010188) and **MAMIDI VENKATA SAI GANESH KUMAR (**RA2211026010146) took part in HackSummit 4.0.
- On September 15, 2023, during HackSummit 4.0, **Vinit Kumar** (RA2211026010188), a participant in the II Year AIML Y1 Section, was chosen for the final round.
- II Year AI A - **Ancy B John** won First Prize in the Hybrid Hack, which was hosted by Aaruush at SRMIST, Kattankulathur, from July 25 to August 22, 2023.
- On September 13, 2023, the B.S. Abdur Rahman Creative Institute of Science and Technology hosted the MINIATHON, in which II Year AI A students **PREJAN RAJA S, VEERAPPAN RM, and SRI KRISHNA C** won second place.
- Third-year AI A students **BHARATH R, ROSHINI SHRIDHARAN, SIVA SUBRAMANIAN ES, and MANE SHANKAR C** from first-year Viscom placed second in the B.S. Abdur Rahman Contemporary Institute of Science and Technology's MINIATHON on September 13, 2023.
- Ali Khan, II year AI A, successfully delivered an Arcade Intelligence workshop at Mac Labs from September 13–15, 2023.
- On September 15, 2023, Annai Violet Arts and Science College hosted a stage play theatre competition, in which II year AI A - Ancy B John won first place.
- Sixth grade AI A students **Prejan Raja S, Venappan RM, and Sanjay Kumar V** placed third in the Chennai Institute of Technology's CASE ANALYTIX competition on September 19, 2023.
- On September 26, 2023, the Chennai Institute of Technology hosted the HACK-XPLODE competition, in which II Year AI A students **PREJAN RAJA S, DHARANYA C, and SRI KRISHNA C** took first place.

IEEE COMPUTATIONAL INTELLIGENCE SOCIETY SRM CHAPTER

IEEE COMPUTATIONAL INTELLIGENCE SOCIETY SRM Chapter conducted its inauguration event where the chairman of IEEE Madras section has come and started the chapter with a blast. Since then the club has dominated in the field of research and intelligence and aloo hosted their enauguration event; Mind Mesh, where the students were taught to create a machine learning model and deploy in the web. The society is involved in research projects and government projects and is trying to light the spark of innovation in SRM.

CINTELASSOCIATION

CINTEL ASSOCIATION

- Women's Day: The celebration of Women's Day took place on 8th March at the UB. It was organized by the students, decorating a women achievers' corner, hosting games, engaging male faculties in card-making contests, and sharing goodies.
- Coding contest: The C-Wars & Coding Contest was held on 20th-21st July at the UB and IMAC lab which involved participants trying to program according to the provided specifications.
- Tech-Q: The CINTEL Student Association held a Tech-Q quiz contest in collaboration with HCL Technologies on August 4th, 2023. The event, held at the Ramachandran Hall, showcased students' tech knowledge and skills. The winning team won a cash prize and the title of ultimate tech champions. The association also plans for future tech events.
- Tech Talk: The series was held on 4th August at Dr.G.N.Ramachandran Hall - University Building, promoting responsible innovation in local tech ecology, inviting stakeholders, developers, and end-users to participate in on-stage dialogues and leading online discussions.
- Teachers Day: The Teachers Day celebration took place on 5th September at the UB including celebrations to honour teachers for their special contribution in education.
- Drone workshop: The five-day drone workshop led by Siemens technical experts was held on 19th-23rd September in which participants formed teams, designed and built drones from scratch followed by the drone flying training session. In addition to this, participants also learned about the future and practical applications of drone technology.
- Appathon: The APP-A-THON is a nationwide initiative providing students a platform to solve real-life problems, offering various challenges. 33 teams started the 24-hour hackathon on 13th October at TP Mini-hall 2. The showdown featured the top 10 teams, impressing the HCl Tech judges.
- CSR activity: The corporate social responsibility (CSR) activity was conducted on 19.08.23, 16.09.23, and 21.10.23 where the CINTEL Students spent the weekends teaching computer underprivileged of Hope Charitable Trust and Local Schools. They also taught arts and crafts to autistic kids.

CINTEL'S NEXT GEN AI

In an exhilarating blend of technology and education, the NextGen AI team hosted the much-anticipated Arcade Intelligence Bootcamp for its first-year enthusiasts. The day kicked off at 10:00 am with a seamless digital check-in, marking the beginning of a journey into the realms of AI and Machine Learning. Ali Khan, the luminary in ML/DL from Next Gen AI, led an engaging session on GitHub, unraveling the complexities of Lists and Arrays to a rapt audience. As the clock struck 11, the air buzzed with discussions about AI applications, drawing a clear line between AI and its close relative, ML.

The highlight of the morning was a challenging Python programming quiz. The enthusiastic participants, vying for the top spots, later basked in recognition and were awarded exclusive Next Gen AI merchandise. Gracing the event, Dr. Annie Uthra, the esteemed Head of Department, lent her presence, further inspiring the attendees. The bootcamp wrapped up at 4:30 pm with heartfelt thanks from the Next Gen AI team, leaving the attendees enriched with knowledge and looking forward to future endeavors in the dynamic world of AI.

CINTEL'S WORKSHOPS AND FDPS

The Department of Computational Intelligence conducted a 6 days Workshop on **"Capacity Development with Ethical Considerations and Skills Development",** from 09/10/2023 to 14/10/2023. It is an initiative to provide students with essential ethical skills that will not only benefit them in their academic journey but also in their personal and professional lives. Experts like Ms.Thulasi Manogaran,CEO of Giant Leap and certified NLP Practitioner and Trainer, Mr.Nandhakumar Founder of Wellness Mentor Consulting, Author of the Book – From Pain to Gain, Dr.Pangajam P, Associate Professor, SRM Medical College, Mr.NM Rangesh, Associate Certified Pranic Healer, Mr. Sajeev Menon, International Trainer,Art of Living were invited and gave a lively session on the topics like "Understanding the Importance of Ethics ","Ethical Dilemmas in Daily Life","Strategies for Ethical Problem Solving","Role of Ethics in Career Development" and Interactive Discussions with Gaming and Group Activities.

The Department of Computational Intelligence organised Five days STTP on **"ADVANCEMENT OF AI ENABLED SOFTWARE DEVELOPMENT FROM BENCHTOP TO COMMERCIAL PRODUCT"** from 09/10/2023 to 13/10/2023 at Tech Park 501 Smart Room. More than 65 participants attended this STTP and gained the latest knowledge in various fields. The Industry Expert Mr. Jagatheeswaran Senthilvelan, Founder and Managing Director, ProtoHubs.io, Chennai handled Explainable AI and Integration of AI & Its impact on Software Development with Hands-on.

CINTEL'S WORKSHOPS AND FDPS

The Cognitive Analytics Workshop, held over two days at the University Building Laboratory No. 801, began on September 21, 2023, with an introduction to cognitive analytics, AI, and ambient intelligence. The first day featured Sri Vidhya Narayanan from Cognizant Chennai, covering topics like predictive analytics, ChatGPT, and AI in automobiles, and concluded with a focus on Natural Language Processing and Explainable AI. The second day, led by Ramanujam from Cognizant Chennai, focused on machine learning in marketing, discussing customer segmentation, price optimization, and AR/VR technologies, culminating with practical demonstrations in 3D modeling and game development. Participants gained valuable insights into cognitive analytics, AI applications, and hands-on experience in emerging technologies.

SRM Institute of Science and Technology in association with IITM PALS and IBM conducted 5 days Faculty development program on "Cyber Security & SIEM (Powered by QRadar) from 31stJuly to 4th Aug in I-Mac Lab. Over 100 Faculty Members across four southern states engineering colleges and universities participated in the five days Program. The participants were trained on the latest tools and technologies of the Cyber Security Program to handle the threats in modern environments. Finally the participants skills evaluated using project based assessment and certificates were awarded to them.

CINTEL'S WORKSHOPS AND FDPS

SRM Institute of Science and Technology in association with Intel Technologies, Bangalore and Edulateral Foundation organized a Five days Workshop in Raspberry pi workshop from 24th July to 28th July, 2023 to enhance the Skillset of AI students. In this workshop, participants will delve into the world of the Internet of Things (IoT) and Artificial Intelligence (AI), focusing on edge devices. The first three days of the workshop will cover hardware basics, while the rest of the session will explore IoT architectures and Linux applications in the IoT realm.

The Department of computational Intelligence has successfully completed the Five-day Short-Term Training Program on "BUILDING INDIGENOUS SMART ROBOTS FOR REAL WORLD APPLICATIONS USING AI SKILLS" from August 21 to 25, 2023.

The training program was conducted by a team of experienced industry persons from Vayut systems, Edutech chennai, Nyx Wolves chennai experts. The participants were given hands-on experience in building and programming robots using various AI techniques. They also learned about the latest applications of AI in robotics, such as self-driving cars, medical robots, and industrial robots.

The training program has equipped the participants with the skills and knowledge they need to build indigenous smart robots for real-world applications.

CINTEL'S FIRST YEAR INDUCTION

The First Year College Induction Program was meticulously planned and implemented to ensure a smooth transition for incoming students into the college environment. The primary goal was to familiarize students with campus life, academic expectations, support services, and extracurricular opportunities. The program aimed to create a supportive and inclusive atmosphere that encourages student engagement, academic success, and personal growth.

·Orientation: Introduce new students to college culture, values, and academic expectations.

·Academic Support: Provide guidance on curriculum requirements, academic resources, and support services available to students.

·Community Building: Facilitate opportunities for students to connect with peers, faculty, and staff to foster a sense of belonging and community.

·Personal Development: Offer activities aimed at personal growth, time management, study skills, and stress management.

·Orientation Sessions were conducted to acquaint students with college policies, academic programs, resources, and opportunities available on campus. This included information about support services, library facilities, counseling, and career development.

·Academic advising was facilitated by the Head of the Department, program, coordinators and academic advisors to guide students through course selection, academic planning, and goal setting. Faculty advisors offered assistance in understanding program requirements and academic expectations.

·Tours of the campus facilities and social events such as welcome parties, ice-breaking activities, and club fairs were organized by the faculty advisors to encourage interaction among students and build a sense of community.

FACULTY ACHIEVEMENTS

Dr.Velliangiri S, Assistant Professor is being rcognized as one of the World's top 2% of scientists in the subdomain of "Artificial Intelligence & Image Processing, Networking and Telecommunication and Information & Communication Technology", for 2023, as released by Elsevier BV (Elsevier - Stanford University Initiative) and Stanford University, United States. He is one among the 27 faculty members from SRMIST group of Institutions.

The project titled "Meta-learning Framework for the Predictive analysis Tasks in Magnetic Resonance Imaging of Ischemic Stroke Lesions" by **Dr. Athira Muraleedharan Nambiar** (Research Assistant Professor, Dept. of Computational Intelligence, SRMIST as Principal Investigator) and Dr Dr. Senthil Kumar Aiyappan (Head, Dept of Radiodiagnosis, SRMIST as Co-Principal Investigator) is sanctioned for Core Research Grant funding of around **Rs. 35 lakhs for 3 years by Science and Engineering Research Board (SERB), Govt. of India.**

Dr.C.Arun Completed his Ph.D Degree from SRM Institute of Science and Technology, defended his Ph.D work titled "Enhancing the Performance of Software Defect Prediction Model by alleviating the Class Imbalance Problem" on 25th September 2023.

Dr.Akshaya Jothi Completed her Ph.D Degree from Sastra University, defended her Ph.D work titled "Optimal Path Planning of Intelligent Unmanned Aerial Vehicles" on 3rd August 2023.

FACULTY ACHIEVEMENTS

- **Dr.M.Ferni Ukrit** presented a paper titled "Analysis of Extractive Text Summarization Techniques for Multilingual Texts" at the 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI) ©2023 and served as Convenor for the “Talk on Pursuing Graduate Study Options at Oakland University and Technical Talk on Distributed Machine Learning and Applications” by Dr.Vijayan Sukumaran, Oakland University, SRMIST, Kaattankulathur, 14 August 2023. the IEEE.
- The Institution of Engineers (IEI) awarded **Dr. S. Karthick** a Certificate of Appreciation for his outstanding contribution to IEI KTR-LC.
- **Dr. T. R. Saravanan** served as the coordinator of the outreach programme to government schools at Government Primary School in Mannivakkam from August 8 to September 9, 2023.
- **Dr. S. Amudra** served as a reviewer for the IEEE International Conference on Networks, Multimedia, and Information Technology (NMITCON), which was sponsored by AICTE and held at Nitte Meenakshi Institute of Technology in Bengaluru, India on September 1 and 2, 2023, in cooperation with the IEEE Bangalore Section.
- **Dr M. Maheswari** received a certificate of appreciation for my significant contribution to IEI KTR-LC from IEI, The Institution of Engineers
- **Dr. Athira M. Nambiar** won the "2023 IAPR Best Biometrics Student paper" award at the IEEE International Joint Conference on Biometrics (IJCB)'23, which was held in Ljubljana, Slovenia, for her work "Adapt-FuseNet: Context-aware Multimodal Adaptive Fusion of Face and Gait Features using attention techniques for Human Identification." This is the premier international forum for research in biometrics and related technologies. This project involved an international research collaboration between SRMIST and the Instituto Superior Técnico, University of Lisbon, Portugal. On September 21, 2023, at IIT Delhi, a presentation meeting for the Science and Engineering Research Board (SERB)-Program Advisory Committee Evaluation CRG was held.
- **Dr. S. Prithi** participated in the Six Day FDTP on AD3501 - Deep Learning at Panimalar Engineering College on August 25, 2023. She also chaired a session at the International Conference on Smart Technologies for Smart Nations (SmartTechCon 2023), which took place at Amity Global Institute in Singapore from August 18 to 19, 2023. She also reviewed papers at the Sixth International Conference on Contemporary Computing and Informatics (IC3I 2023), which took place at Amity University from August 14 to 16 of 2023, and she obtained her Oracle Certified Foundations Associate certification on September 1, 2023.
- On September 1, 2023, **Dr. A.K. Reshmy** held the Oracle Certified Foundations Associate designation.
- **Dr. G. Sumathy** served as a reviewer for the 6th International Conference on Contemporary Computing and Informatics (IC3I 2023), which took place from August 14–16, 2023, at Amity University.

FACULTY ACHIEVEMENT

- **Dr. Kaavya Kanagaraj's** book, "Machine learning in Biomedical and Health Informatics," was released by Scientific International Publishing House and has the following ISBN: 978-93-5757-494-5.
- On July 6–7, 2023, at IIT Delhi, **Dr. M. Kiruthika** reviewed papers for the 14th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2023) and on August 14–16, 2023, at Amity University, for the 6th International Conference on Contemporary Computing and Informatics (IC3I 2023). On September 2, 2023, Oracle Corporation certified her as an Oracle Certified Foundations Associate.
- For leading a session at the Cognitive Analytics & its Application workshop at SRM on September 22, **Mr. Kaviyaraj R** was awarded a Certificate of Appreciation.
- **Dr. R.A. Karthik** participated in the IEEE International Conference on Circuit Power and Computing Technologies as a technical session chair and reviewer. The IEEE International Conference on Circuit Power and Computing Technologies will be held on August 10 and 11, 2023, at the Baselia Owens II College of Engineering in Kollam.
- **Dr. C.Sherin Shibi** served as a reviewer at the 12th IEEE International Conference on Advanced Computing, which took place at Anna University's MIT Campus in Chennai, India, on August 18–19, 2023.

Generative Adversarial Networks

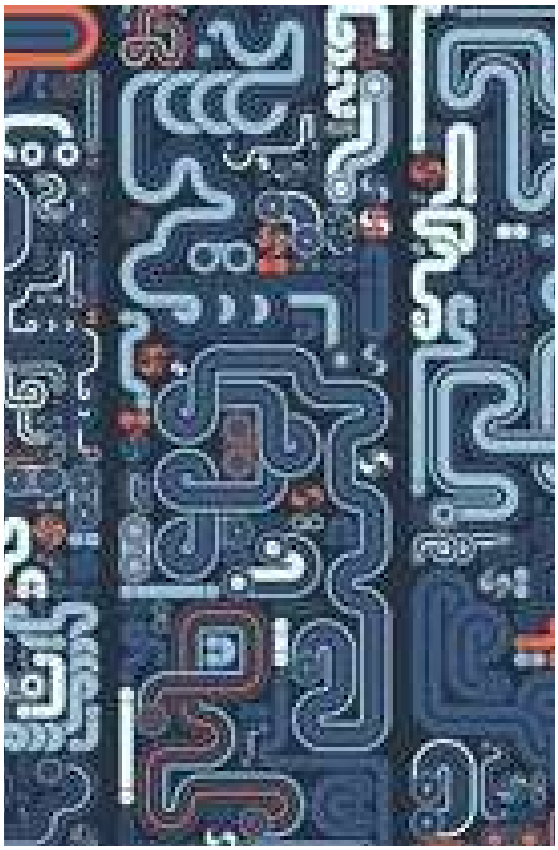
Taking us to the future by showing it to us

Generative Adversarial Networks (GANs) are advanced algorithms comprising a Generator (Alice) and a Discriminator (Bob), engaged in a perpetual dance of creation. Alice generates convincing digital art, challenging Bob to distinguish it from human-made creations. GANs can produce a variety of imaginative outputs, from unusual animals to surreal landscapes.

These algorithms not only inspire digital marvels but also have practical applications, such as generating realistic medical images, enhancing photographs, and aiding architects in visualizing constructions. However, the rise of deepfakes, a product of GANs, has sparked debates around privacy and disinformation.

The versatility of GANs extends to their real-world applications, serving as artificial intelligence's Swiss Army knife. From doctor training to improving visual quality in photographs, GANs offer limitless possibilities. However, the rapid expansion of creative boundaries raises concerns about privacy, disinformation, and the potential for malicious content. As we venture deeper into this digital wonderland, it is crucial to be vigilant guardians of the creative fire sparked by GANs, balancing eager creativity with responsible use. In this new era of limitless creation, GANs have woven a canvas of possibilities that ranges from the absurd to the awe-inspiring.

Despite their immense potential, GANs have sparked debates, particularly with the emergence of deepfakes—mischievous applications that swap faces in videos, leading to humorous and surreal pop culture moments. GANs have revealed the malleability of reality, with instances like Nicolas Cage starring in numerous films and politicians delivering speeches they never made.



Large Language Models

Taking us to the future by showing it to us

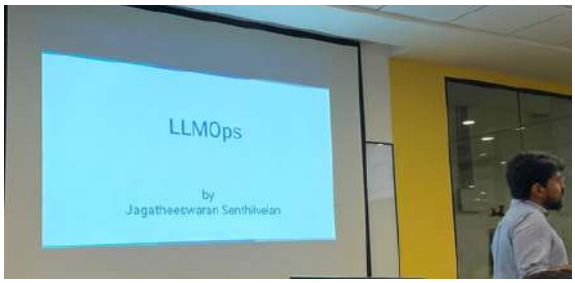
In a world where data dances through the digital ether, a new kind of magic has emerged - the enchanting world of Large Language Models, or LLMs. These digital sorcerers are not your ordinary run-of-the-mill programs. They are the wizards of words, the conjurers of content, and the architects of innovation in the 21st century. Prepare to embark on a journey through this mystical realm, where the mundane becomes extraordinary, and the extraordinary becomes possible.

- LLMs arose from the depths of research labs once upon a time, in the age of
- algorithms and data. These marvellous machines are more than simply machinery; they are portals to the unknown, keepers of information, and keepers of creativity. They can summon facts, spin stories, and even compose text symphonies that resonate with the human soul with a few keystrokes

Beyond their encyclopedic knowledge, LLMs possess a unique talent - the ability to weave dreams with words. They can craft stories that whisk you away to far-off galaxies, pen poetry that tugs at your heartstrings, and even generate art that challenges the boundaries of human creativity. With LLMs, imagination knows no limits, and the line between the possible and the impossible blurs.

As with any powerful magic, the use of LLMs comes with ethical considerations. Their ability to generate text has raised concerns about misinformation, plagiarism, and the potential for abuse. In this enchanted realm, we must be stewards of responsible use, ensuring that the magic serves the greater good of humanity.

The banal becomes magical, the ordinary becomes spectacular, and the impossible becomes attainable in the world of LLMs. LLMs provide a ticket to a world where words are wands and ideas are spells, whether you're a writer looking for inspiration, a scholar seeking knowledge, or a dreamer eager to explore the unlimited possibilities of the digital universe. Step into this enchanted universe, where creativity has no limitations, information flows like a river, and the only restriction is your imagination's horizon. All you have to do is embrace the enchantment and let your own creativity bloom in this amazing world of LLMs.



FACULTY UPSKILLING

Faculty members at CINTEL underwent Design Thinking training, which provided a fresh perspective on problem-solving in education and daily life. This training had several key benefits:

1.Collaboration & Interdisciplinary Approach: Design Thinking emphasized collaboration and working with colleagues from diverse backgrounds, resulting in more innovative solutions.

2.Human-Centered Problem Solving: The approach stressed understanding the needs and perspectives of end-users, fostering empathy and addressing real challenges faced by students, colleagues, and the community.

3.Iterative and Prototyping Process: The iterative nature of Design Thinking encouraged rapid prototyping and testing, allowing for quick learning from failures and better solutions.

4.Creative Problem Solving: Design Thinking encouraged thinking creatively and challenging conventional assumptions, leading to innovative ideas.

5.Empowerment and Ownership: Faculty members felt empowered to take ownership of challenges, equipped with practical tools and frameworks to initiate positive change in teaching practices and daily life.

6.Transferable Skills: Design Thinking skills extended beyond education, aiding in personal challenges and community initiatives.

In summary, Design Thinking training broadened perspectives, enhanced problem-solving skills, and provided a valuable toolkit for addressing challenges with creativity, empathy, and effectiveness.

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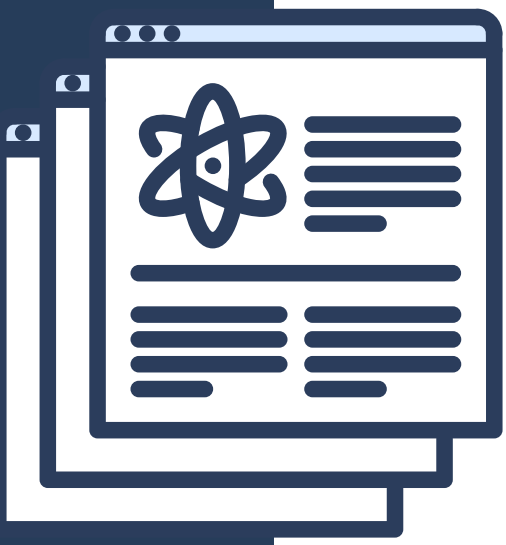

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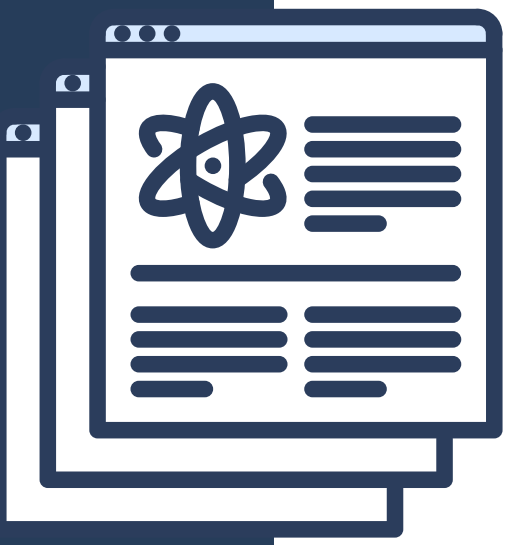

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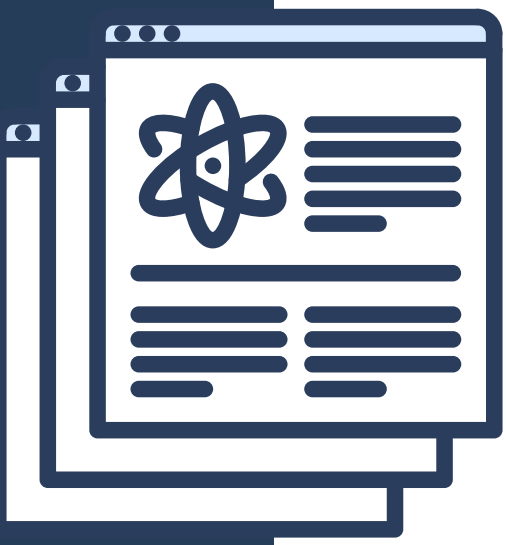

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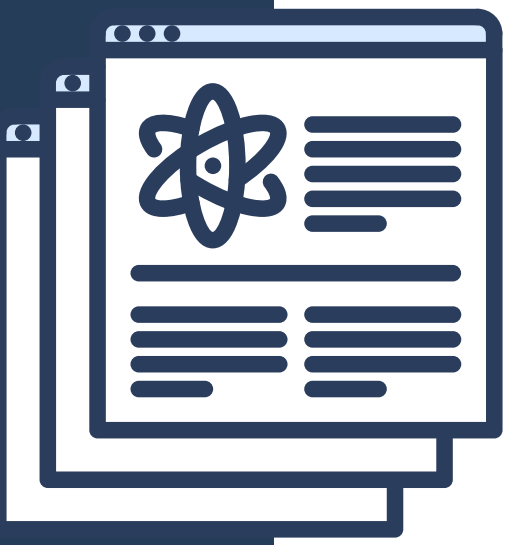

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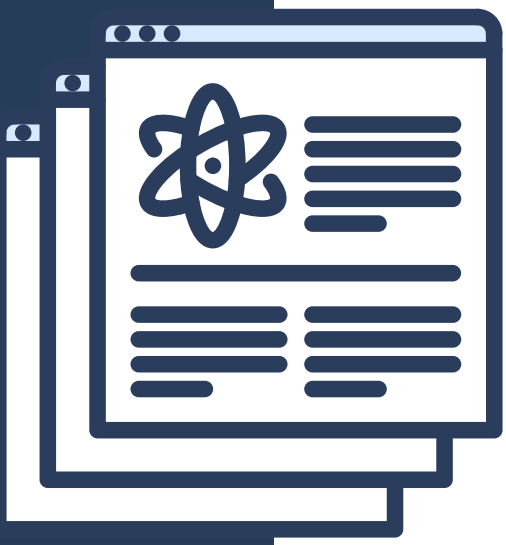

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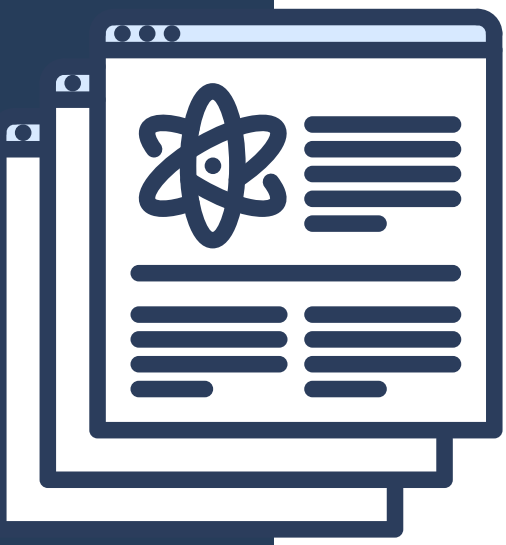

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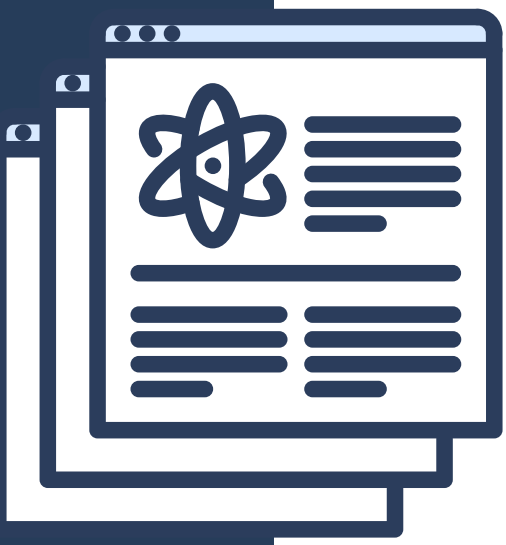

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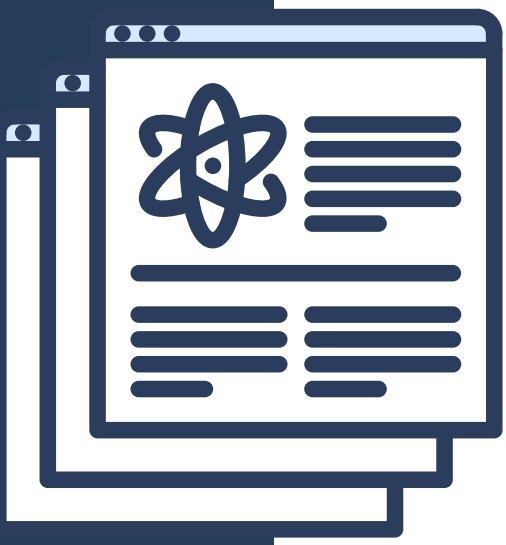

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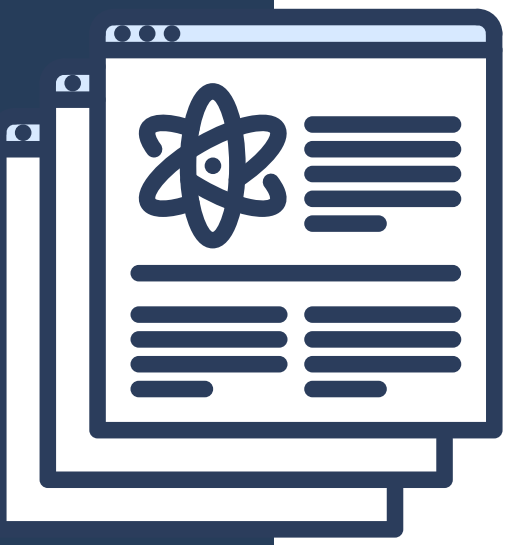

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PATENTS & GRANTS

GRANTS PUBLISHED

- **Dr. N. Arivazhagan,Dr. A. Revathi, Dr. M. Vimaladevi , Dr. E. Poongothai** received patent grant for the title, **"INTELLIGENT BIOMETRIC ATTENDANCE RECORDER"**, from Government of India.
- **DR.N.KANIMOZHI** received patent grant for the title, **“Temperature based touch less attendance system”**, from Government of India.
- **Dr.S.Prithi, Dr. Reshmy A.K**. received patent grant for the title, **“MANUAL RETRACTABLE CLOTH DRYER FOR MULTI-STORIED RESIDENTIAL BUILDINGS”**, from Government of India.
- **Dr.U.Sakthi** received patent grant for the title, **“SURVEILLANCE CAMERA”**, from Government of India.
- **Dr. B.Pitchaimanickam** published a patent titled ,**”AI EMPOWERED INCUBATOR FAULT LOCALIZATION AND NEONATAL HEALTH MONITORING SYSTEM”**,IPR,India.
- **DR.N.KANIMOZHI** published a patent titled ,**”IMPLEMENTATION OF MACHINE LEARNING APPROACHES FOR PREDICTING JOB SATISFACTION AND EMPLOYEE BEHAVIOR IN AN ORGANISATION”**,IPR,India.
- **Dr.K.Moorthi** published a patent titled ,**”HUMAN RESOURCE BASED APPROACH FOR ELECTRONIC COMMERCE”**,IPR,India.
- **Dr.R.BEAULAH JEYAVATHANA** published a patent titled ,**”IoT & ML (Machine Learning) Based Prediction & Treating Cancer in Real Time & A Mobile App Hosted in the Cloud”**,IPR,India.
- **Dr E.Poongothai** published a patent titled ,**”IOT BASED SMOKE AND HEAT DETECTOR”**,IPR,India.
- **Dr. T. Subha, Dr.A.Jackulin Mahariba, Dr.A.L.Amutha** published a patent titled ,**”A SYSTEM AND APPARATUS FOR HAND HYGIENE COMPLIANCE AND INPATIENT SECURITY IN HOSPITALS USING IOT”**,IPR, India.
- **Dr AR ARUNARANI** published a patent titled ,**”IMPLEMENTATION OF FEATURE SELECTION-BASED ALGORITHMS FOR ACCURATE PREDICTION OFCROP YIELD AND PAVING WAY FOR PRECISION IN AGRICULTURE”**,IPR,India.

FUN PAGE

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AI Almanac: Facts Beyond the Code

1 THE ORIGIN

The term "Artificial Intelligence" was first coined at a conference at Dartmouth College in 1956.

2 EXPENSIVE ART

An AI-generated artwork titled "Edmond de Belamy" was sold for over $432,000 (almost 3.5 cr) at Christie's auction house in 2018.

3 MUSIC AND MACHINES

There are AI systems that can compose music, and some have even collaborated with human artists to produce albums. Check out
Holly Herndon & Jlin (feat. Spawn) – Godmother

4 HOLLYWOOD AND AI

The iconic film "Blade Runner" was inspired by a novel titled "Do Androids Dream of Electric Sheep?" by Philip K. Dick. A must watch surely for tech nerds.

Reading
HOROSCOPES
is enjoyable for everyone, this is one from us.

- **ARIES:** Swift decisions echo AI computations. Embrace fast-paced innovations.
- **TAURUS:** Your consistent nature matches stable AI systems. Rely on proven methods.
- **GEMINI:** Juggle tasks like a parallel processor. Diversify to thrive.
- **CANCER:** Intuition meets emotion-recognition AI. Blend tech with empathy.
- **LEO:** Shine brightly in the spotlight of AI advancements. Lead with confidence.
- **VIRGO:** Meticulous coding aligns with your precision. Pursue detail-oriented projects.
- **LIBRA:** Balance in AI ethics reflects your harmonious spirit. Mediate and guide.
- **SCORPIO:** Dive deep into neural networks as you do in emotions. Profound discoveries await.
- **SAGITTARIUS:** Explore the vast AI landscape. Seek knowledge and innovate.
- **CAPRICORN:** Structure and discipline mirror algorithmic logic. Trust the process.
- **AQUARIUS:** Visionary as always, predict trends like predictive analytics. Chart the future.
- **PISCES:** Your dreams align with creative AI. Fuse imagination with technology.

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கூம்பலும் இல்ல தறிவு.

**Wisdom embraces frank the world, to no caprice exposed;
Unlike the lotus flower, now opened wide, now petals strictly closed.**

உயர்ந்தவர்களைத் தன்னுடையவர்களாகச் செய்து கொள்வதே அறிவு; அத்தொடர்பிலே முதலில் மகிழ்தலும் பின்னர் குவிதலும் இல்லாததும் அறிவு ஆகும்.

To secure the friendship of the great is true wisdom; it is (also) wisdom to keep (that friendship unchanged, and) not opening and closing (like the lotus flower).