



Department Events



BTech CSE
MTech CSE

MTech CSIS (August 2024)



FROM DEPARTMENT CHAIR.....

Wish you a happy and prosperous new year

As I conclude my two-year tenure as the Head of the Department of Computer Science and Engineering, I am filled with immense gratitude and pride for what we have achieved together. It has been an honor to serve in this role and contribute to the growth and success of our department. Over the past two years, our collective efforts have yielded remarkable milestones:

- **A notable improvement in our QS ranking**, affirming our commitment to global excellence.
- **Recognition in the Education World rankings**, a testament to our pursuit of holistic education.
- **Prestigious NBA and IET accreditations**, underscoring the quality and rigor of our offerings.
- **A significant enhancement in research output**, with impactful publications and research grants that advance knowledge and innovation.
- **Outstanding achievements by our students**, who continue to make us proud with their talent and dedication.
- **The introduction of a new curriculum structure for Computer Science and Engineering**, approved by the Board of Studies (BOS) and the Department Curriculum Committee (DCC).

These accomplishments are not mine alone but a reflection of the relentless efforts of our faculty, the enthusiasm of our students, and the unwavering support of our staff and institutional leadership. I extend my heartfelt thanks to each of you for your trust, collaboration, and encouragement throughout this journey. Let us continue to strive for greater heights and inspire future generations of scholars and innovators. As I transition the role, I wholeheartedly wish the incoming Head of Department, Dr. P C Siddalingaswamy, great success. I am confident that his vision and leadership will drive the department to even greater achievements and uphold its tradition of excellence.



Faculty Mentor

Dr. Renuka A

Editor-in-Chief

Dr. Sucharitha Shetty.

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MIT Pravesh 2024: A Grand Welcome for Freshers

BTech – CSE and CSE(AI/ML) ★ ★ ★ ★ ★ **MTech – CSE and CSIS**



The Department organized a two-day induction program for first-year B.Tech students (CSE and CSE-AI/ML) on July 18-19, 2024. The event featured a range of sessions introducing the department, innovation, career prospects, entrepreneurship, research culture, and ethics in AI. Expert talks included insights from industry professionals and educators on innovation, product development, and education in computer science. Activities like "Ideathon: Innovation and Design Thinking" encouraged creative problem-solving, while an evaluation session fostered collaborative learning. Distinguished faculty coordinated the sessions, and mentors guided interactive workshops to ensure an engaging start for the freshers.

The Department orientation for first-year M.Tech(Computer Science & Engg.) and M.Tech(Computer Science & Information Security) students was held on 30th July 2024 in CSE Seminar Hall. Dr. Krishnamoorthi Makkithaya, Head of the Department welcomed the newly joined post-graduate students. Dr. Harish S V, Professor, Department of Computer Science & Engg., briefed about academic rules and regulations. Also, he answered queries from the students. Mr. Manoj R, Assistant Professor-Senior Scale conveyed information about internship/placement opportunities. Dr. Ashalatha Nayak, Professor in the Department of Computer Science & Engg., gave an outlook on the research scope. Dr. Gururaj Bijur, Assistant Professor – Selection Grade was the master of ceremony.

FDP on Quantum Technologies



The department in collaboration with C-DAC Bengaluru organized a Faculty Development Programme on Quantum Technologies from September 9-13, 2024. Cdr. (Dr.) Anil Rana, Director of MIT, inaugurated the event, emphasizing academic enrichment and innovation. The keynote address by Dr. Asvija, Associate Director of C-DAC, Bengaluru, highlighted the transformative potential of quantum technologies. Dr. Krishnamoorthi Makkithaya, Head of CSE, welcomed the guests, underlining the importance of continuous learning and innovation. Coordinated by Dr. R. Vijaya Arjunan, the programme aimed to equip faculty with advanced knowledge in quantum technologies.

PSUC Workshop Equips Faculty for Interdisciplinary Teaching



From July 3–9 2024, workshops were conducted by Mr. Rajesh and Dr. Archana, bringing together faculty from diverse departments. The primary goal was to prepare educators to effectively manage both the theory and lab components of the Programming for Problem Solving (PSUC) course for first-year students.

Odyssey Workshop

A workshop on Augmented and Virtual Reality was held for 7th-semester students on October 16-17, 2024, to explore AR/VR technologies and their applications. Day 1 began with a session by Dr. P C Siddalingaswamy, Professor providing an overview in VR/AR in healthcare, followed by Mr. Vishwas Kini, PhD Research Scholar who shared the fundamental concepts towards Unity, AR and VR and the setup for Quest 3. One of our active students from CSE-AIML batch, Mr. Bharath Kumar gave in the practical demonstration of concepts with the help of Unity application development and deployment on Quest 3. The final session included the similar possibilities and improvements in developing virtual environments using Unreal game engine and was delivered by Mr. Mayur Pandya, PhD Research Scholar from the Department of Computer Science & Engineering.



Workshops on Generative AI and Cybersecurity



One-day workshop on "Generative AI for Educators in Higher Education," was conducted on 2nd July 2024 aimed in spreading awareness about Generative AI (GAI) to all the educators and in particular CSE stream faculties. Dr. Gang Li, Professor, School of Information Technology, Deakin University Australia & adjunct faculty (international) MAHE, enriched the gathering on how to responsibly use GAI towards effective teaching and research. Dr. Karunakar A Kotegar, Director, International Collaborations MAHE Manipal & Professor, Department of Data Science & Computer Applications, MIT Manipal discussed about the potential of GAI in the education sector.



Another one-day workshop titled "Strategic Suppression of Cyber Propaganda A Game Theory Approach" was conducted on 6th December 2024, where Dr. Gang Li along with Dr. Srikanth Srinivas Prabhu, Professor and Coordinator MAHE-ISAC CoE for Cybersecurity, as speakers, exploring the cutting-edge solutions to tackle cyber propaganda on Online Social Networks (OSNs).

Awareness on "Research Publications - APC free MAHE listed Journals"

The Open Access Publishing Workshop, conducted on July 13, 2024, featured insights from Dr. Santhosh, Deputy Director of Research (Tech) at MAHE. The sessions explored the history of the Open Access movement, various OA publishing models, and MAHE's transformative agreements with top publishers, aiming to empower researchers to maximize the reach and impact of their work.



Guest Lecture on IT/ICT Education and Career Development

On September 9, 2024, the Department hosted a guest lecture by Dr. Pavanaja U B, Founder Director, Vishvakannada Foundation at the ICT Seminar Hall, AB5. The session focused on the challenges and opportunities in IT/ICT education and careers, emphasizing the importance of programming aptitude, analytical skills, and practical experience for success. Dr. Pavanaja highlighted actionable steps for students to enhance their employability, including continuous learning and engaging in practical projects. The event, supported by Joint Director Dr. Somashekhara Bhat and CSE Head Dr. Krishnamoorthi Makkithaya, was well-received for its practical insights.



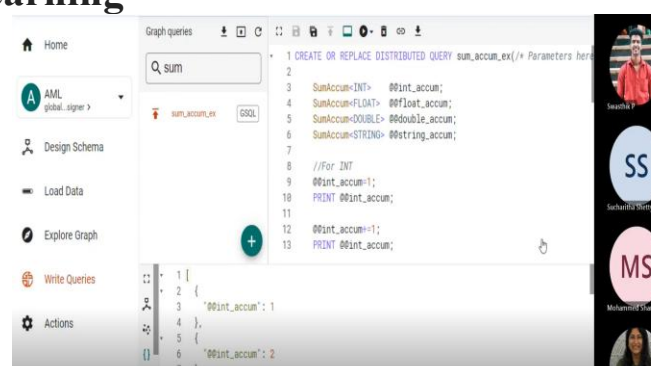
Revitalizing Vision through Yoga

On July 17, 2024, the Department of Computer Science and Engineering organized an session on "Yoga for Eye Improvement," led by Dr. Lavya Shetty and her team from the Centre for Integrative Medicine and Research (Yoga) at MAHE, Manipal. The event, held at the department's seminar hall, offered attendees invaluable insights into how yoga can enhance eye health, reduce strain, and improve overall well-being. As a bonus, participants also benefited from a free eye test, making the session both informative and practical for all who attended.



Interactive Session on "Graph databases on Artificial Intelligence and Machine Learning"

On July 15, 2024, the Department of Computer Science & Engineering, MIT Manipal, organized an engaging online session on "Graph Databases in Artificial Intelligence and Machine Learning," conducted by a team from Novigo Solutions. The session highlighted the transformative role of graph databases in managing and analyzing complex relationships in AI and ML applications. Experts discussed the advantages of graph-based approaches over traditional databases, showcasing real-world use cases in recommendation systems, fraud detection, and knowledge graphs. Attendees gained valuable insights into the integration of graph databases into AI/ML workflows, emphasizing their scalability and efficiency.



Academic Audit

An academic audit was conducted by Prof. Venkatesh Tamarapalli, Professor and Head, Department of Computer Science and Engineering, IIT Guwahati on September 19, 2024, to evaluate and enhance the academic practices of the Department. The audit focused on assessing the curriculum, teaching methodologies, research initiatives, and overall academic performance of the department. Prof. Venkatesh reviewed course materials, providing valuable feedback and recommendations for improvement. The session also included interactive discussions with faculty to identify opportunities for innovation and ensure alignment with industry standards. The audit served as a constructive platform to reinforce the department's commitment to academic excellence and continuous improvement.



Prof. Rajaram Oration Series 2024

The department organized the Prof. Rajaram Oration on November 6, 2024, at the KEF R&D Auditorium. The event was inaugurated by Prof. Niranjana Narayan Chiplunkar, Principal, NMAM Institute of Technology, and presided over by Cdr. (Dr.) Anil Rana, Director, MIT. Dr. Geetha M, Director of Student Affairs, MAHE, and other dignitaries honored the occasion, celebrating the contributions of Prof. Rajaram. The keynote address by Prof. Chiplunkar focused on "Multicore Architecture and Programming," discussing advancements in computational performance and real-world optimizations. The oration highlighted the enduring legacy of Prof. Rajaram and his impact on the department.



Talk on Fostering entrepreneurship for Viksit Bharat

A talk on 'Fostering entrepreneurship for Viksit Bharat' By Dr. Santosha Rao, CEO, MUTBI and Member Secretary Manipal University Technology Business Incubator Society and Additional Professor, Department of Information and Communication Technology, Manipal Institute of Technology, Manipal was held on 13/08/2024 for the benefit of PG students and the faculty members. He gave insights about the various schemes provided by the government to encourage entrepreneurship among the youth. He explained the support given by MAHE through MUTBI for the staff and students for incubating their start-ups. Around 50 participants attended the talk.



Product Development Cell

Aligning with our department's vision and mission, on November 1, 2024, Dr. Krishnamoorthi Makkithaya, Head of Department has formed a team of faculties to create an environment for our students introducing them to cutting-edge technology platforms and tools with clear focus on their skill development by mentoring them to structure their innovative ideas and turn them into viable and useful products. The long-term goal of this Initiative is to establish a self-sustainable Consultancy Centre expertise in building real-time and useful software products for our internal departments, internal entities of MAHE and other external entities.

MoU signed with Novigo Solutions

On August 19, 2024, MIT, Manipal, MAHE, with an initiative from the Department of Computer Science & Engineering, signed a Memorandum of Understanding (MoU) with Novigo Solutions to strengthen collaboration in academics, research, and student development with the Department of Computer Science & Engineering. This partnership aims to provide students with opportunities for projects, internships, and joint research initiatives, fostering innovation and bridging the gap between academic learning and industry practices. (Accompanying the article is a picture from the initial discussions)



International Faculty



The department has engaged Prof. Gang Li, Professor, Deakin University and Prof. Dr. Maja Sarveska, Assistant Professor, Nazarbayev University, as an international faculty member, bolstering global research and academic contributions in the Computer Science and Engineering department

Prof. Gang Li
Professor, Deakin University



Prof. Dr. Maja Sarveska,
Assistant Professor,
Nazarbayev University

Faculty Grants / Projects – In Progress



Artificial Intelligence Centre of Excellence (AICoE) under the “Pran AI” project.

This initiative focuses on developing AI solutions for affordable and accessible healthcare across all generations. From MIT Manipal's Department of Computer Science & Engineering (CSE), the core team includes:

- Dr. Manjunath K N – Chief Project Manager & PI, Associate Professor, CSE
- Dr. Neelima Bayyapu – Co-PI, Associate Professor, CSE
- Dr. Muralikrishna S N – Co-PI, Assistant Professor Sr. Scale, CSE

Cdr. (Dr.) Anil Rana (Director, MIT), Dr. Somashekhar Bhat (Joint Director, MIT), and Dr. Krishnamoorthi Makkithaya (HOD, CSE, MIT) are playing pivotal roles in overseeing and guiding the project's progress. This team, along with IIT Madras, is spearheading groundbreaking AI applications that promise to transform healthcare delivery, making it more affordable and accessible.



PREGNANCY MONITORING

Udupi: The district administration has joined hands with a team from the Manipal Institute of Technology (MIT) to develop the Janani App, aimed at improving health monitoring for pregnant women. The team recently presented the app to DC Vidya Kumari K and other officials during a meeting. The pros and cons of the app were also discussed.

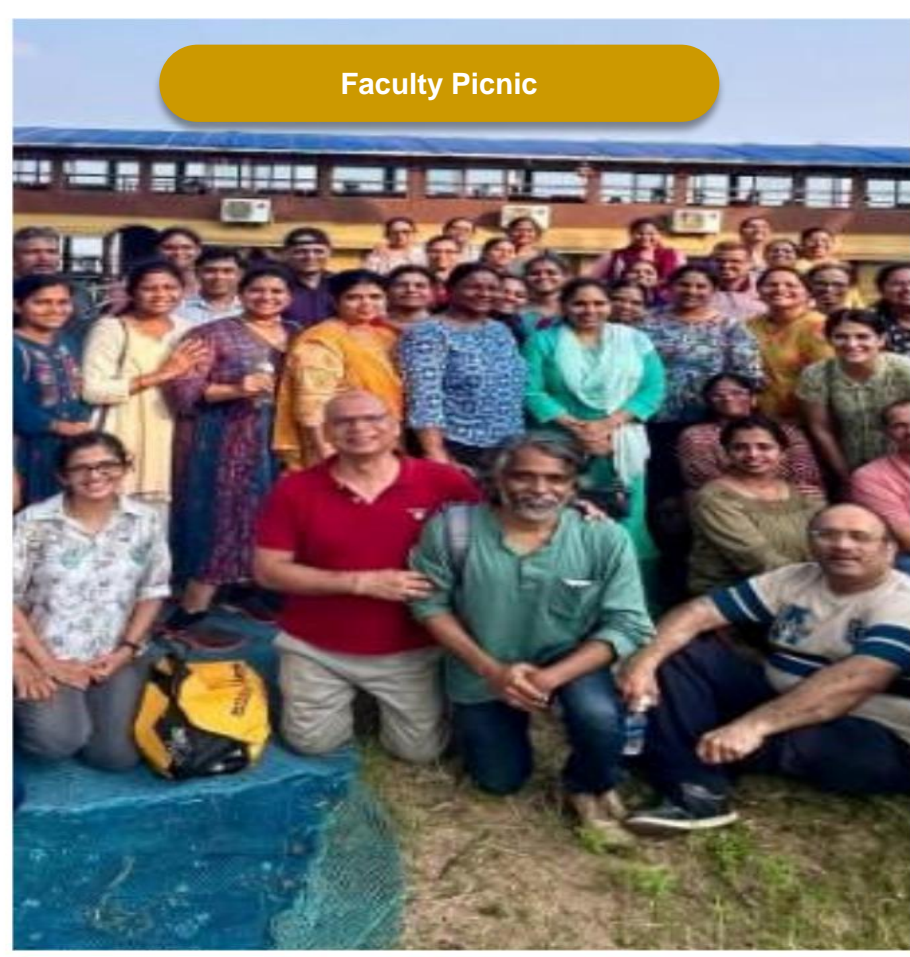
...istrict administration implementing rural health projects and contributing to the community with expertise." Dr Rana said, ...ing that the idea cropped up during a discussion with health officials to bridge the gap in the existing system and provide better healthcare moving forward.

DHO Dr IP Gadad said that the app will help to track pregnant women in the district and assist Asha workers. Once a woman registers, she will receive health-related messages and can communicate with Asha

District CSR Project – Janani App
Team Members from CSE
Mr Ashwath Rao B, Mr Roshan David Jathanna
Dr Rajashree Krishna, Dr Sucharitha Shetty



Meity Grant
Team Members from CSE
Dr Narendra V G, Mr Ashwath Rao B, Ms Musica Supriya



Faculty Picnic



Farewell to Mrs Cynthia Menezes



Institution Cricket Match



Welcoming the New Semester with a Sweet Celebration

Faculty Achievements



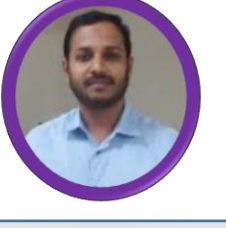
MIT has received administrative approval for participation in the "COIL-D: Centre of Indian Language Data" project, funded by MeitY. Led by IIT Patna, this consortium project has a total funding of INR 27.3 crore, with MIT allocated INR 1.96 crore. Collaborators include IIT Delhi, IIIT Guwahati, IIIT Delhi, IGDTUW, and Digital India Bhashini Division DIC. The project team at MIT is headed by **PI Dr. Muralikrishna SN with Co-PI Mr. Ashwath Rao B and members Dr. Ashalatha Nayak, Mr. Ganesh Babu, Raghavendra Ganiga (I&CT), and Raghuram Holla (DS&CA).**



Dr. Srikanth Prabhu has been appointed as the **Coordinator of MAHE-ISAC, CoE for Cybersecurity** on September 23, 2024



Dr. P C Siddalingaswamy has been awarded an **Australian Awards Fellowship** to participate in Round 19 — R192287 — Academic Skills Development in Digital World: Capacity Development Program for Tertiary Educators, organized by The University of Adelaide.



Dr. Ahamed Shafeeq won the best paper award for the paper titled "Performance Analysis of Cluster Analysis using Bio-inspired Optimization" presented at IICIRD 2024 conference held from 8/11/2024 to 11/11/2024 at Shinawatra University, Thailand



Dr. Manjunath K N conducted a one-day FDP at JNN College of Engineering, Shivamogga on how to systematically write a grant proposal to funding agencies. The event witnessed 60 faculties from Junior level to senior level who were interested in submitting the research proposals.



PA College of Engineering recently organized a workshop on the "Future of Healthcare Technology & Engineering." The organizers invited **Dr. Krishnaraj Chadaga**, who served as a distinguished resource person. Dr. Chadaga's deep expertise in data analytics and artificial intelligence provided participants with valuable insights into how these technologies can be leveraged to improve healthcare outcomes. His sessions were particularly impactful, offering practical knowledge and fostering interdisciplinary collaboration among attendees.



Mrs. Jimcymol James, Assistant Professor, **Mr. Vishwas G Kini** and **Mr. Mayur Pandya**, research scholars and **Mr. Bharat Kumar**, active student of VI semester B.Tech CSE- AIML, all belonging to the CSE department, had been resource persons in the three days' workshop on "AR and VR in Engineering Education", organized by the Department of Robotics and Artificial Intelligence Engineering In Association with Nitte Centre Of Excellence for Applied Artificial Intelligence, Nitte, during 16th – 18th December 2024. The workshop highlighted the transformative role of AR/VR technologies in revolutionizing engineering education by creating immersive and interactive learning experiences with hands-on sessions focus on equipping attendees with technical expertise in tools like Unity, ARCore, and ARKit, fostering both creativity and technical skill.

PhD Awardees



Dr. Manoj T has been awarded a doctoral degree by MAHE, Manipal, for his thesis titled "A Trusted and Transparent Multisource Data Framework for Agricultural Risk Management" under the guidance of Dr. Krishnamoorthi Makkithaya, Professor & Head, Department of Computer Science and Engineering, MIT Manipal.



Dr. Siva Selvan has been awarded a doctoral degree by City University of London, UK, for his thesis titled "Secure Device Authentication and Access Control for the Internet of Things Environment" under the guidance of Professor Muttukrishnan Rajarajan, Professor of Security Engineering & Director, Institute of Cyber Security, City University of London, UK.



Dr. Krishnaraj Chadaga completed his PhD in the domain of Medical Artificial Intelligence under the guidance Dr Srikanth Prabhu, Professor, Department of Computer Science and Engineering, MIT Manipal. He has used multiple machine learning and explainable AI techniques in the battle against COVID-19. Due to his publications, patents and citations, he received the best research scholar award for the year 2024.



Dr. Vidya Kamath completed her Ph.D. in the domain of Deep Learning in Computer Vision for Resource Constrained devices under Dr Renuka A, Professor, Department of Computer Science and Engineering, MIT Manipal. She has developed an Object Detection model named 'VireNet-SSD' that induces heterogeneity in the Neural Network Architecture to imitate human neurons. Her model has the capability to support real-time deployments on Resource Constrained devices. She has received the '**Best Paper award**' for her work on Jetson Nano at MAITRI-2023 Summit held at NIT Jalandhar.

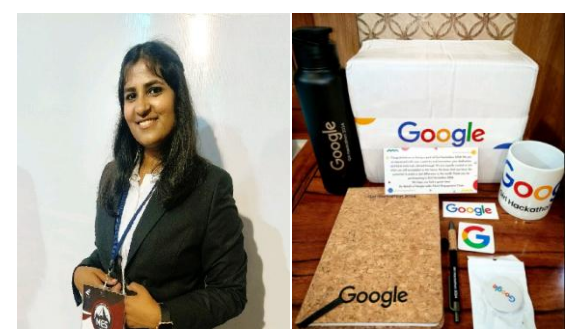


Dr. Anita S Kini has successfully defended her doctoral thesis titled "Early-Stage Disease Detection and Classification of some Medicinal Plants Using Soft Computing Techniques" under the guidance of Dr Prema K V, Associate Director, Professor and Head, MIT Bangalore and Dr Smitha Pai, Professor and Head of Department ICT, MIT, Manipal for the award of Phd degree by the Manipal Academy of Higher Education, Manipal.

Students' Achievements

Semifinalist Spotlight at Google Girl Hackathon 2024!

Aayushi Kumari, a B.Tech CSE student, achieved the remarkable feat of being a semifinalist at the prestigious Google Girl Hackathon 2024. Competing against over 34,000 applicants from 700+ universities across India with 200+ innovative ideas, she advanced through multiple stages: eligibility checks, learning cohorts, the Google online coding challenge, and the hackathon itself. The journey was both challenging and rewarding, and Aayushi was thrilled to receive fantastic goodies from Google as part of this incredible experience!



Code for <Good> 2024 Hackathon Winners with AI Solution

Arav Chadda and his team won the Code for <Good> 2024 Hackathon organized by JPMorganChase, Bangalore on 27th and 28th July. During the intense 30-hour coding session, they used advanced technologies like AI, Computer Vision, and Natural Language Processing to create a solution.



Recognition at ICASSSD and Patent Granted for an Innovative Imputation System

Nakul Bhat, a standout student of the Department of CSE-AIML at MAHE, was among the 20 exceptional candidates selected globally for the prestigious ICASSSD Second Research School on 'Dynamic Sustainable Solutions' (April–June 2024). Organized by the International Centre for Applied Systems Science and Sustainable Development, the program featured weekly sessions on research methodologies, ethics, and sustainability, led by experts from leading institutions like the University of Waterloo and University of Toronto. Nakul collaborated with high-profile reviewers to address real-world challenges, culminating in the publication of innovative research in a compendium. His achievement highlights his dedication to impactful research and brings pride to MAHE's academic community.



The Department is also beaming with pride as Nakul has also been granted a **patent** for his groundbreaking invention titled "**Iterative Imputation System and Method for Predicting Missing Environmental, Social, and Governance (ESG) Data.**" Nakul's innovative system leverages cutting-edge imputation algorithms to address a critical challenge in ESG data analysis: the accurate prediction and completion of missing data values.

Runner-Up at MIT Hackathon 2024

The team of Hilten Raj, Btech CSE, Mohammed Shabad, Btech CSE, and Anand Venukrishnan secured the 1st Runner-Up position at the MIT Hackathon held on 17th August. The 24-hour event, focused on Generative AI, showcased their exceptional creativity and technical expertise. Their remarkable performance earned them a cash prize of ₹10,000.



Innovative Ventures

Sanjay Sudina has founded two distinct startups that reflect his passion for diverse domains:

- Admission Array:** Based in Andhra Pradesh, this consultancy focuses on training and educational services, including management training, personnel development, and academy education for fields like construction drafting.
- RYSSLES:** Co-founded by Sanjay, RYSSLES is a clothing brand startup offering stylish, high-quality apparel that blends comfort with unique, trend-focused designs. Successfully managing academics and startups, Sanjay demonstrates a remarkable ability to excel in both innovation and education.



CyberAI Cup 2024 Winners organized by International Cyber Security Data-Mining Society

Komal Mathur, V Sem BTech CSE student along with Parva Chowdhury and Aditya Shah (students from VII BTech Information Technology), had bagged 1st place in the 15th International Cybersecurity and Generative AI (Cyber AI Cup 2024) organized by International Cyber Security Data-Mining Society (ICSIDS). The team had remarkable competition with 699 teams across the globe among 522 Universities +109 Countries.



Celebrating a Proud NPTEL Superstar Achievement!

The department is thrilled to announce that Aryan Mangla, a dedicated and accomplished student of our CSE branch, has achieved the prestigious NPTEL Superstar recognition! This incredible honor is reserved for individuals who excel as toppers in at least three NPTEL examinations, showcasing their consistent academic brilliance and commitment to learning. The Superstar category is an advanced distinction, superseding the Believer category, and stands as a testament to Aryan's exceptional performance.



Young Innovators Represent Navmarg Research at Digital Tech Summit 2024



Ms. Shambhavi Sinha, BTech CSE student and Mr. Arpit Kumar BSc Physics student, DAMP, MAHE have been invited to the prestigious **Digital Tech Summit** in **Copenhagen** under the Young Entrepreneurs track. As co-founders of **Navmarg Research and Innovation (P) Ltd**, the duo received full travel support from the event organizers. Navmarg Research collaborates with CSIR labs and the Bihar Government to implement its patented technology for removing arsenic from potable water in schools and colleges. The startup was also recognized as one of the top 3 by **NASSCOM** last year, highlighting its impactful contributions to societal well-being.

Achievement in Basic Mountaineering Course at ABVIMAS



Ms. Nakshatra Bhandary, a BTech CSE student, successfully completed the Basic Mountaineering Course at the Atal Bihari Vajpayee Institute of Mountaineering and Allied Sports (ABVIMAS) in Manali, Himachal Pradesh. This 26-day course, conducted in the rugged terrain of the Himalayas, is designed to impart essential mountaineering skills for high-altitude expeditions. Throughout the course, Nakshatra acquired proficiency in various techniques, including rock climbing, belaying, ice and snow craft, jumaring, and rappelling, alongside advanced skills such as crevasse rescue and river crossing.

Best Poster Presentation Award at ICHTR-2024 for Paper on Sentiment Classification

Mr Omkar Prabhu, under the mentorship of Dr Ahamed Shafeeq won the best presenter under poster category award for the paper titled "Enhancing Binary Sentiment Classification through SMOTE and Hyper-parameter Optimization: A Machine Learning Approach" presented at Interdisciplinary Conference on Healthcare and Technical Research (ICHTR-2024) organized by MAHE-SRF held at Kasturba Medical College, Mangalore, MAHE, India.



Record-Breaking Placement: ₹57 Lakh CTC at Palo Alto

Mr Sanath Savitha has set a new benchmark by receiving the highest placement package of ₹57 Lakh CTC at Palo Alto. This achievement reflects the student's hard work and the university's dedication to excellence in education and career opportunities. Heartiest congratulations on this success!



#SmartIndiaHackathon2024 World's Biggest Open Innovation Model

Team Nitewatch from MIT emerged victorious at the Smart India Hackathon (SIH) 2024, winning ₹1 Lakh for their innovative solution to the problem statement, "Recovery of Deleted Data and Associated Metadata from XFS and Btrfs Filesystems," provided by NCIIPC. The event was held on December 11–12, 2024 with IIT Jammu as the Nodal Centre. Congratulations to Dr. Nisha Shetty, Assistant Professor, Department of ICT as mentor of Team Nitewatch, for her guidance, and to Misha Jain (II CSE - AIML), who was one of the winners, along with Arnav Vijaywargiya (II AI/ML) and Urja Srivastava (II AI/ML), whose teams reached the grand finale.



**Congratulations
Btech. CSE & CSE-AI/ML Winners**



Category	Event Name	Team Position	Team Members from Dept of CSE	Branch
Acumen	Hopeless Opus	1st	Rigved Waradpande, Avanish Money Srivats	CSE
	Tesseract	2nd	Rajaryan Sarin, Devansh Singh, Shashwat Ved	CSE - AIML
		3rd	Mitul Agrawal	CSE
Aeroverse	Skyrush	2nd	Charagondla Mohith Udaykumar	CSE
Bizcomm	Monopoly	1st	Kumar Aditya Farmania	CSE
Cosmic Con	Celestial Labyrinth	3rd	Pranjal Singh, Satvik Maheshwari	CSE - AIML
	Kinetic Kreations	3rd	Samridhi Dhamija	
Cubing	Cube Relay	3rd	Mathpal Aditya Pankaj	CSE
Epoch	iDesign	2nd	Vaishnavi Omprasad Rai	CSE - AIML
		3rd	Siddarth N Shenoy	CSE
	Moral Metrics	1st	A S Aravinthakshan	CSE
		3rd	Anirvesh Arcot	CSE - AIML
	Order of Chaos	1st	Ambuj Shukla	CSE - AIML
Investigar	Paper Presentation	1st	Sarvesh Kumar, Konthalapalli Laalenthika	CSE
		2nd	A S Aravinthakshan	CSE
		1st	Aditya Prashant Naidu (Overall)	CSE - AIML
Kernel	Capture The Flag	1st	Rupak Banerjee	CSE - AIML
		3rd	Barri Harshith	CSE
	Cryptic Finds	1st	Rupak Banerjee	CSE - AIML
		2nd	Avanish Money Srivats	CSE
		3rd	Rigved Waradpande	CSE
	MIT Open	1st	Vasudevan Dev R Sujay	CSE - AIML
2nd		Anant Agarwal, Arham Dugar		
Kraftwagen	Off-road Mayhem	2nd	Kumar Aditya Farmania	CSE
	Rapid Rebuild	3rd	Gandhi Hryday Jaymin	
Mechatron	Sleuths and Ladders	1st	Atharv Upadhyaya, Mahad Sheikh, Parthiv Prasanth	CSE
		3rd	P Naga Srisha, Bhuvi Sanga	
Quark	Chronohunt	2nd	Anisha Deb	CSE - AIML
Synergetics	Diagnosis Detective	1st	Aditi Narsaria	CSE
		3rd	Aakarsh Kumar Nishad	
Vedanth 14.0	Techshowdown	1st	Ojasvi Tomar	CSE - AIML
		1st	Aayushi Gupta	CSE

Cryptonite	Competition Name	Team Position	Team Members from Dept of CSE	Branch
	Capture the Flag	1st	Barri Harshith	CSE
		1 st	Jayapal Ashwin Nair	CSE-AIML
	CS-Mining CyberAI Cup	3 rd	Nishant Gunda	CSE

Mtech CSE & CSIS Publications (July - December 2024)

Student Name	Title	Publications
Ankit Hegde	Visual SLAM in Dynamic Environments: Robustness and Adaptability	2024 Fourth IEEE International Conference on "Multimedia Processing, Communications and Information Technology"
Santosh Moolya	Machine Learning approach for Early Detection of Heart Disease	3rd International Conference on Human-Centric Smart Computing (ICHSC 2024), 25th-26th, July 2024, Jaipur, India
Prajwal Kamath	A Comparative Study on Cotton Plant Disease Detection Using Transfer Learning Techniques	Second International Conference on Networks, Multimedia and Information Technology (NMITCON), 9-10 Aug 2024, Bengaluru, India
Sankalp B Garuthman	DDoS Attack Detection And Prevention In Smart City	2024 Fourth IEEE International Conference on "Multimedia Processing, Communications and Information Technology"
Vaishnavi	Automatic helmet detection and number plate recognition system using YOLO	CodeAI, International Conference on Data Science & Exploration in Artificial Intelligence
Nidhi Saralaya	Cyberbullying Detection in Low Resource Code-Mixed Languages using ML and NLP Techniques	2nd International Conference on Artificial Intelligence: Theory and Applications (AITA 2024)
Prajwal B S	License Plate Recognition using Federated Learning	2024 Fourth IEEE International Conference on "Multimedia Processing, Communications and Information Technology"
Akash S Kotian	Enhancing Leukemia Detection through Automated Image Analysis and SVM Classification	3rd International Conference on Advanced Communication and Intelligent Systems (ICACIS 2024)
Shrutha V Bhat	Integrated Deep Learning and Optimization Strategies for Accurate Cinnamon Bark Disease Classification	Control Instrumentation System Conference (CISCON)
Shashank K G, Prajwal Purushotham Varekar	Parallized Local Texton XOR Patterns Extractions	5th Congress on Intelligent Systems (CIS 2024)
Rakshit Ajay	Parallel Implementation of Neighbour-based Binary Pattern Using CUDA	ICHSC 2024



Mentored by Mr Giridhar N S

- Date: 14/9/24
Basics of C(PSUC/PPS) Workshop
- Date: 16/10/24
Order of Chaos(TechTatva)
- Date: 25/10/2024
Fresher's Codesprint
- Date: 23/12/2024
Basics of DSA Workshop
(Part of Member Bootcamp)
- Date: 24/12/2024
Intro to ML
(Part of Member Bootcamp)



Mentored by Dr Srikanth Prabhu

- Date: 13/09/24
Introduction to ML Workshop
- Date: 15/11/24
Program for Problem Solving Workshop
- Date: 20/12/24
Serverless Simplified Workshop



Mentored by Dr Srikanth Prabhu

- Start Date: 10/21/2024 End Date: 10/21/2024
AI/ML Orientation Session
- Start Date: 05/12/2024 End Date: 05/12/2024
Workshops on Regression and Neural Networks
- Start Date: 27/10/2024 End Date: 25/12/2024
Web Development Workshop-HTML, CSS, JS
- Start Date: 20/10/2024 End Date: 28/10/2024
Competitive Programming Workshop
- Start Date: 01/11/2024 End Date: 25/02/2025
Launch of Monthly Newsletter
- Start Date: 24/10/2024 End Date: 24/10/2024
App Development Workshop Part 1
- Start Date: 11/12/2024 End Date: 11/12/2024
App Development Workshop Part 2
- Start Date: 15/12/2024 End Date: 15/12/2024
App Development Workshop Part 3
- Start Date: 16/12/2024 End Date: 16/12/2024
ACM Mobile App Project



Mentored by Mr Ashwath Rao

- Date: 13/12/24
Online Tests evaluation using
VLOOKUP function of Excel

Alumni News

Sl#	Date	Invited Alumni	Talk On
1	10/09/2024	Mr. Kartik Mandaville, CEO Springworks	From Campus to Company: Leveraging AI for Startup Success and Career Growth
2	31/08/2024	Dr Vishal Kaushal, Applied Science Manager, Amazon	Corporate Talk on Peace of Mind or Pieces of Mind
3	26/07/2024	Mr.Pranav Kumar, Senior Engineering Leader, ARRISE powering Pragmatic Play	Software Engineering Career Opportunities in the AI Era
4	15/10/2024	Mr Soorya Annadurai, Software Engineer, Microsoft	Joining a Corporate Job after University The highs and lows as a new hire
5	20/08/2024	Shivani Modi, Head of AI and Machine Learning at Konko AI	Leveraging Generative AI in Multi-Agent Systems: Advancements, Challenges, and Future Directions

From MIT Manipal to Mentorship: Devansh Sharma's Impact on Aspiring Engineers

We're thrilled to bring you the story of Devansh Sharma, a 2024 CSE graduate from MIT Manipal, who has made a lasting impact on the careers of many aspiring engineers! During his time at MIT Manipal, Devansh led a Coding Community with over 1500 members. His hands-on guidance through 150+ mock interviews and 100+ mock group discussions and case study sessions directly contributed to helping 500+ students secure placements and internships, with 15 off-campus hires done directly through the community! Building on this incredible success, Devansh recently launched a new initiative for juniors, which has grown to 280+ members in just one month. His focus is on fostering a collaborative environment that equips students with the skills they need to excel in their careers.



VISION

Excellence in Technical Education through Research, Innovation and Teamwork

MISSION

Educate students professionally to face societal challenges by providing a healthy learning environment grounded well in the principles of engineering, research, creativity and teamwork.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

VISION

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To impart excellent Computer Science & Engineering education for professional roles in a changing and challenging technological world, to advance knowledge through quality research in important emerging areas in the discipline and to build a strong relationship with industry, academia and society.



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B.Tech Computer Science and Engineering

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- PEO1: Carry out engineering projects and develop new products in the area of Computer Science and Engineering and pursue higher studies.
- PEO2: Innovate and be creative in the profession; apply analytical skills and demonstrate research capabilities in the field of computer science and engineering.
- PEO3: Work in multidisciplinary environments and be responsive to the changing needs of the society.
- PEO4: Communicate effectively, display leadership skills, and demonstrate professionalism.
- PEO5: Engage in lifelong learning, apply the knowledge judiciously and remain continuously employable.

PROGRAM SPECIFIC OUTCOMES (PSO)

- PSO1: Analyse and solve real world problems by applying a combination of hardware and software.
- PSO2: Formulate & build optimised solutions for systems level software & computationally intensive applications.
- PSO3: Design & model applications for various domains using standard software engineering practices.
- PSO4: Design & develop solutions for distributed processing & communication.

B.Tech Computer Science and Engineering (Artificial Intelligence and Machine Learning)

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- PEO1: Carry out engineering projects, develop new products, and pursue higher studies in Computer Science with emphasis on Artificial Intelligence & Machine Learning.
- PEO2: Innovate and be creative in the profession; apply analytical skills and demonstrate research capabilities in the field of computer science and engineering.
- PEO3: Work in multidisciplinary environments and be responsive to the changing needs of the society.
- PEO4: Communicate effectively, display leadership skills, and demonstrate professionalism.
- PEO5: Engage in lifelong learning, apply the knowledge judiciously and remain continuously employable.

PROGRAM SPECIFIC OUTCOMES (PSO)

- PSO1: Analyse and solve real world problems by applying a combination of hardware and software.
- PSO2: Formulate & build optimised solutions for computationally intensive applications.
- PSO3: Use tools and techniques in Artificial Intelligence & Machine Learning for solving problems.
- PSO4: Apply intelligent models for multidisciplinary areas.

B.Tech Computer Science and Engineering

B.Tech Computer Science and Engineering (Artificial Intelligence and Machine Learning)

PROGRAM OUTCOMES (PO)

- Engineering Graduates will be able to:
- PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

M.Tech Computer Science and Engineering

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- PEO1: To carry out projects and demonstrate design, analysis, and programming skills to solve computational problems in science and multidisciplinary engineering domain.
- PEO2: Be actively involved in research and development and engage in lifelong learning leading to new innovations to meet the societal challenges.
- PEO3: To take up a career in industry, academia or become successful entrepreneurs and excel as socially committed professionals by respecting ethical practices and maintaining integrity.
- PEO4: To apply the knowledge of mathematics, research methodology and computer science and engineering education to pursue higher studies.
- PEO5: To demonstrate leadership skills, teamwork and effective communication of the technical information and remain continuously employable.

PROGRAM OUTCOMES (PO)

- PO1: An ability to independently carry out research /investigation and development work to solve practical problems.
- PO2: An ability to write and present a substantial technical report/document.
- PO3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.
- PO4: Apply problem solving skills and advanced concepts in Computer Science to breadth of topics in industrial applications.
- PO5: Use mathematical foundations and research based knowledge for facilitating novel contributions to contemporary areas of computer science.

M.Tech Computer Science and Information Security

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- PEO1: To carry out projects and demonstrate design, analysis, and programming skills to solve computational problems in security and multidisciplinary engineering domain.
- PEO2: Be actively involved in research and development and engage in lifelong learning leading to new innovations to meet the societal challenges.
- PEO3: To take up a career in industry, academia or become successful entrepreneurs and excel as socially committed professionals by respecting ethical practices and maintaining integrity.
- PEO4: To apply the knowledge of mathematics, research methodology and computer science and information security education to pursue higher studies.
- PEO5: To demonstrate leadership skills, teamwork and effective communication of the technical information and remain continuously employable.

PROGRAM OUTCOMES (PO)

- PO1: An ability to independently carry out research /investigation and development work to solve practical problems.
- PO2: An ability to write and present a substantial technical report/document.
- PO3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.
- PO4: Apply problem solving skills and advanced concepts in Computer Science and Information Security to breadth of topics in industrial applications.
- PO5: Use mathematical foundations and research based knowledge for facilitating novel contributions to contemporary areas of cryptography and information security.