

#### GEETANJALI INSTITUTE OF TECHNICAL STUDIES N37





(Affiliated to Rajasthan Technical University, Kota & Approved by AICTE, New Delhi)

NAAC ACCREDITED "A" GRADE INSTITUTE I NBA ACCREDITED ENGINEERING & MANAGEMENT PROGRAMS

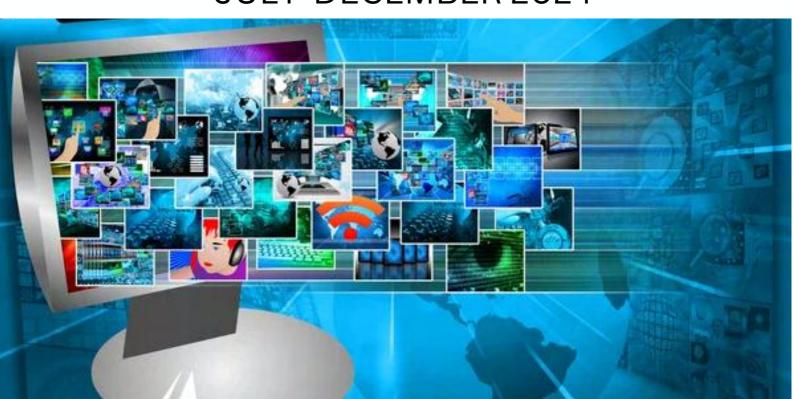
#### DEPARTMENT OF COMPUTER SCIENCE AND **ENGINEERING AND ARTIFICAL INTELLIGENCE**



#### **E-NEWSLETTER**

#### **BITS & BYTES**

VOLUME - VIII - ISSUE 2 **JULY-DECEMBER 2024** 



#### **Director's Desk**



Dr. S.M. Prasanna Kumar

Education is the foundation upon which the future is built, and at Geetanjali Institute of Technical Studies, we are committed to shaping individuals who are not only knowledgeable but also industry-ready and well-rounded. Our institution thrives on a student-centric approach, ensuring that every learner receives the guidance, resources, and opportunities needed to excel in their chosen paths.

With an emphasis on academic excellence and professional success, we take immense pride in our robust placement support system. Our dedicated faculty and training programs work tirelessly to ensure that every student is well-equipped with technical expertise, problem-solving skills, and industry exposure. We strive to create an environment where learning extends beyond textbooks, fostering innovation, research, and hands-on experience.

Our vision is to empower students with knowledge, values, and skills that make them future leaders and change-makers. We encourage holistic development by promoting sports, cultural activities, and extracurricular engagements, ensuring that students grow into well-balanced professionals. The various clubs, events, and competitions at our college provide a platform for students to explore their talents and interests beyond academics.

We believe in nurturing aspirations and transforming dreams into reality. We are dedicated to building a community of learners, thinkers, and achievers who contribute to society with excellence, integrity, and innovation.

#### **HOD's Desk**



Dr. Mayank Patel

#### HOD, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Our department is dedicated to creating a dynamic learning environment that promotes creativity, critical thinking, and practical skills. By continuously updating our curriculum with the latest technological advancements, we ensure our graduates are well-prepared for both industry and academia.

Our esteemed faculty members, who are accomplished educators and active researchers, play a pivotal role in advancing knowledge in fields such as artificial intelligence, data science, cybersecurity, and software engineering. Their expertise and commitment provide students with a comprehensive and enriching educational experience.

We prioritize hands-on learning through advanced laboratories, internships, and collaborations with industry partners. By engaging in real-world projects, our students gain invaluable practical experience that significantly enhances their professional development.

In addition to academics, we support the overall growth of our students through various technical clubs, hackathons, seminars, and workshops. Our strong alumni network, which spans the globe, reflects the success of our graduates. Together, we strive for excellence and aim to make a positive impact on technology and society.

# About Computer Science and Engineering Department

The Department of Computer Science and Engineering is dedicated to educating and conducting research across a broad spectrum of information science. This includes fundamental technologies such as software design, object-oriented programming, computer architecture, database systems, discrete mathematics, and Internet technologies, which form the backbone of our highly information-oriented society. Additionally, the department explores applied and advanced technologies like multimedia, robotics, computer vision, data mining, human-machine interface design, computational science, life science, distributed computing, and theoretical computer science.

To fulfill its mission, the department offers comprehensive educational programs that cover both basic and advanced aspects of computer science and engineering. These programs are designed to cultivate students into leading engineers and researchers, equipping them with practical, creative, and management skills. This holistic approach ensures that graduates are well-prepared to drive the advancement of next-generation information society across various industrial fields.

The success and growth of the department are largely attributed to the high quality of its graduates. Many of them secure employment or pursue higher education, both domestically and internationally, often before or shortly after completing their undergraduate studies. This swift transition into professional roles underscores the department's effectiveness in preparing students for the industry.

Our graduates have established themselves in reputable companies and organizations, reflecting the department's commitment to excellence in education and research. Their achievements in the industry serve as a testament to the robust training and knowledge they received, further enhancing the department's reputation and contributing to its continued growth and success.

#### Vision of CSE Department

To nurture the students to become employable graduates who can provide solutions to the societal issues through ICT.

#### Mission of CSE Department

To focus on practical approach towards learning and exposing the students on the latest ICT technologies. To foster logical thinking among the students to solve real-time problems using innovative approaches. To provide state-of-the-art resources that contributes to inculcate ethical & life-long learning environment.

#### **PSOs of CSE Department**

PSO1: Professional Skills: The ability to understand, analyse and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexity.

PSO2: Problem-Solving Skills: The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver a quality product for business success.

PSO3: Successful Career and Entrepreneurship: The ability to employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur, and a zest for higher studies.

#### **PEOs of CSE Department**

PEO1: To enable the students to think out-of-the-box solutions for addressing societal issues through ICT. .

PEO2: To expose the students towards effective dissemination of research findings in order to become successful entrepreneurs or to pursue higher education.

PEO3: To impart skills in students to analyze, design and implement Software/Hardware solutions to solve interdisciplinary and complex problems

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### TRAININGS

# TRAINING ON PYTHON PROGRAMMING

15 - 31 JULY, 2024



The Department of Computer Science and Engineering at Geetanjali Institute of Technical Studies successfully organized a short-term training program on "Python Programming" from 15th to 31st July 2024. The offline training witnessed active participation from 180 students, guided by four resource persons:

Dr. Ruchi Vyas, Dr. Kanika Garg, Mr. Sandeep Bordia, and Ms. Preeti Sharma. The program was coordinated by Mr. Pankaj Vaishnav, with the primary objective of providing participants with a comprehensive understanding of Python programming and its various applications.

The inaugural session was graced by the presence of dignitaries, including Dr. Narendra Singh Rathore, Director of GITS, and Dr. Mayank Patel, HOD of the Computer Science Department. The event commenced with a warm welcome from student anchor Ms. Hitiksha, followed by an introduction to the program's goals by Dr. Mayank Patel. Dr. Rathore shared his insights on the significance of Python in modern programming and praised the department for its initiative in organizing such impactful events

During the training, participants were introduced to both fundamental and advanced Python concepts. The sessions covered essential topics like syntax, control structures, data types, and functions, as well as advanced areas such as object-oriented programming and the use of libraries like NumPy, pandas, and matplotlib.

The training also explored practical applications, including data analysis, web development frameworks like Django and Flask, and machine learning basics. Hands-on projects and exercises allowed participants to apply their learning to real-world scenarios, enhancing their problem-solving abilities and technical skills

The program concluded with a valedictory session on 31st July 2024, where the outcomes of the training were summarized. Participants expressed their appreciation for the well-structured and insightful sessions, highlighting the program's role in boosting their programming capabilities. Dr. Mayank Patel delivered a vote of thanks, acknowledging the contributions of the resource persons and the enthusiastic participation of students.





This training program provided learners with a strong foundation in Python programming and introduced them to the basics of data science. By the end of the course, participants were equipped to write efficient Python code and utilize the language for various applications, including automation, data analysis, and web development. The program received overwhelming positive feedback, reflecting its success in enhancing technical skills and fostering interest in programming among the participants.

# TRAINING ON COMPETITIVE PROGRAMMING

1 AUGUST - 10 SEPTEMBER, 2024

The "One Month Training on Competitive Programming" was an offline event held from August 1 to September 10, 2024, organized by the Department of Computer Science & Engineering. The training aimed to equip participants with in-depth knowledge of competitive programming and improve their problem-solving abilities. A total of 150 participants attended the program, which was led by two resource persons from Grras Solutions Pvt. Ltd. The event's coordinators included Dr. Ruchi Vyas, Mr. Jitendra Sharma, Ms. Upasna Ameta, and Mr. Sandeep Bordia.



The inaugural session saw notable figures such as Prof. (Dr.) Narendra Singh Rathore, Director, and Dr. Mayank Patel, HoD of CSE at GITS, in attendance. The training covered crucial concepts like advanced data structures, algorithms, and problem-solving techniques, including Divide & Conquer, Greedy Algorithms, Dynamic Programming, and Graph Theory. The program also delved into essential topics such as Data Structures (stacks, queues, heaps, etc.), algorithms (like greedy and dynamic programming), and various coding practices for competitive programming

The participants were exposed to real-time coding challenges and given hands-on experience with different problem sets, which ranged from basic to advanced levels. They learned how to implement best practices in competitive programming, including time and space complexity analysis and the use of inbuilt functions in languages like C++ and Java. The focus on critical thinking, efficient coding, and mental agility helped participants develop essential skills for solving algorithmic problems under time constraints

By the end of the course, participants were well-prepared for online coding challenges and competitive programming contests. The training also enhanced their chances of securing jobs, as many companies use programming problems in their hiring processes. Additionally, the program provided a strong foundation in data structures and algorithms, making participants more competitive during placements and career opportunities.







# TRAINING ON DEVOPS AND CLOUD COMPUTING

1 AUGUST - 10 SEPTEMBER, 2024

The One-Month Training on DevOps and Cloud Computing, organized by the Department of Computer Science & Engineering from August 1st to September 10th, 2024, provided in-depth knowledge of essential DevOps tools and practices. The training was conducted in offline mode with 150 participants and two resource persons from Grras Solutions Pvt. Ltd. The event was coordinated by Dr. Ruchi Vyas, Mr. Jitendra Sharma, Ms. Upasna Ameta, and Mr. Sandeep Bordia under the guidance of Dr. Mayank Patel (HoD CSE, GITS) and Prof. (Dr.) Narendra Singh Rathore (Director).



The program aimed to equip students with hands-on experience in DevOps tools such as Git, Jenkins, Docker, Ansible, Terraform, Kubernetes, Prometheus, and Grafana. It covered essential DevOps practices, including Continuous Integration, Configuration Management, Continuous Deployment, and Continuous Monitoring. The training provided a practical learning environment, allowing participants to work on real-world projects and understand cloud computing and DevOps implementation strategies.





Participants gained valuable insights into logical programming structures, intermediate and advanced software development practices, and DevOps tool implementation. The program helped students develop a fully functional software application, deploy it on a web server, and integrate DevOps tools efficiently. Additionally, they learned to architect solutions for programming challenges, apply CI/CD theories, and design strategies for multi-platform mobile applications.

The course content covered DevOps best practices, such as CI/CD release management, scalable architecture design, infrastructure monitoring, log and event organization, and zero-downtime deployment strategies. Handson sessions focused on CI/CD automation, virtualization, infrastructure as code, and performance monitoring tools, including Docker, Kubernetes, ELK Stack, Jenkins, GitHub/GitLab, OpenShift, Kibana, and Prometheus. The training enabled participants to bridge the gap between software development and IT operations, making them proficient in deploying and maintaining scalable applications using modern DevOps methodologies.

# TRAINING ON RED HAT CERTIFIED SYSTEM ADMINISTRATOR PROGRAM 13 SEPTEMBER - 13 OCTOBER, 2024

The RHCSA (Red Hat Certified System Administrator) Training Program, held from September 13th to October 15th, 2024, was organized by the Department of Computer Science & Engineering and the Rajasthan Centre of Advanced Technology (RCAT), Government of Rajasthan. Conducted in offline mode, the program had nine participants and was led by Mr. Jitendra Singh Choudhary, a Red Hat Certified System Administrator. The training aimed to equip participants with essential Linux system administration skills, covering user and group management, networking, security, storage management, and troubleshooting. The inaugural session was attended by Prof. (Dr.) Narendra Singh Rathore (Campus Director, GITS), Dr. Mayank Patel (HoD CSE, GITS), Mr. Arvind Singh Pemawat (TPO, GITS), faculty members, and participants.



This hands-on training program was 100% sponsored by RCAT under the Quiz-A-Thon 2024 initiative and followed an interactive methodology, including hands-on labs, real-world problem-solving exercises, and quizzes. The course content covered installation and configuration of RHEL, network configuration, security management (firewalls, SELinux, SSH), system performance monitoring, software package management, automation with shell scripting and cron jobs, and backup and recovery strategies. The training emphasized practical skills and real-world scenarios, ensuring that participants could effectively manage and maintain enterprise Linux systems

One of the highlights of the program was its strong focus on certification preparation, with participants undergoing rigorous assessments, including practice exams and hands-on evaluations. By the end of the training, 7 out of 9 participants successfully passed the RHCSA certification exam, achieving an 80% success rate. This impressive result demonstrated the effectiveness of the training program in preparing candidates for industry-recognized credentials and real-world system administration challenges







The outcomes of the training were significant, as participants enhanced their Linux system administration skills, gained troubleshooting expertise, and learned automation techniques to streamline tasks. Additionally, they developed a deeper understanding of network security and enterprise system management, which are critical for IT professionals. The program successfully bridged the gap between theoretical knowledge and practical application, equipping participants with industry-ready skills that will help them excel in professional Linux system administration roles.







### WORKSHOPS

#### WORKSHOP ON DEVOPS

18 SEPTEMBER, 2024

The Department of Computer Science and Engineering organized a one-day offline workshop on DevOps on September 18, 2024, with Mr. Sunil Kumar, a trainer at Grrass Solutions, as the resource person.

The workshop had 70 participants and was coordinated by Dr. Ruchi Vyas. The inaugural session, held on August 27, 2024, was graced by Dr. Mayank Patel (HOD, CSE, GITS), Dr. Ruchi Vyas, and other faculty members, where Dr. Patel welcomed the trainer and introduced the program.



The workshop aimed to provide participants with a comprehensive understanding of DevOps principles, practices, and tools, focusing on improving collaboration between development and operations teams. Key topics covered included continuous integration and deployment (CI/CD), infrastructure automation, containerization with Docker and Kubernetes, and security integration in DevOps workflows. The hands-on training enabled participants to learn how to automate processes, enhance software delivery, reduce deployment cycles, and improve software quality.

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By the end of the workshop, participants gained practical experience with essential DevOps tools and workflows, along with a solid understanding of CI/CD pipeline management, infrastructure automation, and security best practices. The event successfully equipped attendees with the skills needed to streamline development processes, improve workflow efficiency, and ensure secure, reliable software deployment.







#### WORKSHOP ON POWER BI

17 - 19 OCTOBER, 2024

The Department of Computer Science & Engineering organized a three-day offline training workshop on Power BI from October 17 to October 19, 2024. The event was coordinated by Ms. Somya Agrawal (Assistant Professor, GITS) and conducted by Ms. Neha Solanki (Assistant Professor, JECRC University, Jaipur) and Ms. Somya Agrawal. With 100 participants, the workshop aimed to equip students with essential data visualization and business intelligence skills, providing hands-on experience with Power BI to analyze and present data effectively. The inaugural session was attended by Dr. Mayank Patel (HOD, CSE, GITS), faculty members, and participants, marking the commencement of an engaging and insightful training program



The training focused on Power BI, a business analytics tool from Microsoft, enabling users to visualize data, create interactive reports and dashboards, and derive meaningful insights. Participants learned about its key components, including Power BI Desktop for report building, Power BI Service for cloud-based collaboration, Power BI Mobile for on-the-go access, Power BI Gateway for secure data connections, and Power BI Report Server for on-premises reporting. The workshop covered data connectivity, transformation using Power Query, visualizations, DAX (Data Analysis Expressions), real-time data streaming, and sharing and collaboration features.





By the end of the workshop, participants gained practical skills in data visualization, analysis, and transformation, along with proficiency in DAX for complex calculations and designing interactive reports. They developed a strong understanding of business intelligence concepts, problem-solving techniques, and collaboration through Power BI Service, enhancing their ability to leverage data for strategic decision-making. The training provided career-ready skills for roles in data analysis, business intelligence, and data visualization, preparing students for opportunities in data-driven industries.

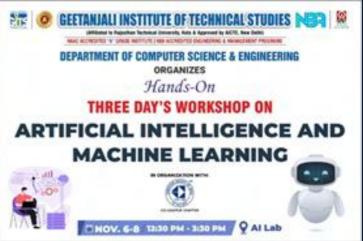
#### WORKSHOP ON

#### **ARTIFICAL INTELLIGENCE AND MACHINE**

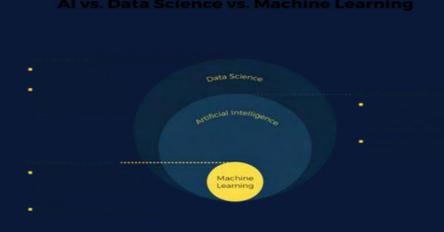
#### **LEARNING**

6 - 8 NOVEMBER, 2024





The Department of Computer Science & Engineering, GITS, organized a three-day workshop on Artificial Intelligence and Machine Learning from 6th to 8th November 2024 for III Sem A & D Section and from 26th to 28th November 2024 for III Sem B & C Section. The workshop was conducted in offline mode and was attended by 120 participants. The event was coordinated by Mr. Sandeep Bordia, Mr. Pankaj Vaishnav, Mr. Rakshit Kothari, and Ms. Charu Kavadia, with Dr. Kanika Garg and Ms. Upasana Ameta as resource persons. The inaugural session was graced by Dr. N.S. Rathore, Campus Director, GITS, and Dr. Mayank Patel, HOD, CSE.



The workshop aimed to equip students with a fundamental understanding of Artificial Intelligence (AI) and Machine Learning (ML) while focusing on model development and implementation. The training covered AI, ML, and Data Science concepts, explaining their significance in real-world applications like image and speech recognition, email spam filtering, fraud detection, and self-driving cars. Participants learned about Supervised, Unsupervised, Semi-Supervised, and Reinforcement Learning techniques, understanding their advantages and selecting appropriate models based on data types and requirements.

The hands-on training focused on Supervised Learning algorithms, including Linear and Logistic Regression, Support Vector Machines, Naïve Bayes Classifier, K-Nearest Neighbors, Decision Trees, and Random Forest models. Using Python libraries, students practiced importing datasets, developing, training, and evaluating models while exploring techniques like parameter tuning and performance scaling to enhance model efficiency.

By the end of the workshop, students had gained practical knowledge of ML model development, from data preparation and training to evaluation and prediction. The session strengthened their understanding of Al and ML applications, fostering their ability to implement algorithms effectively in real-world scenarios. The workshop proved to be an enriching experience, providing students with valuable insights into cutting-edge Al and ML technologies.





# WORKSHOP ON BUILDING AI CHATBOT

16 NOVEMBER, 2024

The Department of Computer Science and Engineering organized a one-day offline workshop on "Build Al Chatbot" on November 16, 2024. The event, coordinated by Dr. Ruchi Vyas, featured Mr. Tushar Sharma, a trainer from IBM, as the resource person. With 250 participants, the workshop aimed to provide a comprehensive understanding of Al chatbots, their development, and their integration into software development workflows. The inaugural session was attended by Dr. Mayank Patel (HOD, CSE, GITS), Dr. Ruchi Vyas, and faculty members, with Dr. Patel inaugurating the event and welcoming the speaker.



The workshop covered key concepts and practices involved in Al chatbot development, including automation, CI/CD pipelines, and infrastructure management. Participants learned how chatbots enhance collaboration, automate processes, and improve software delivery, leading to faster deployment, reduced downtime, and improved software quality. The session also explored containerization and orchestration using Docker and Kubernetes, as well as monitoring and logging techniques to ensure operational efficiency. Emphasis was placed on integrating security and compliance measures into chatbot workflows, ensuring a seamless and secure development process.

By the end of the workshop, participants gained hands-on experience with Al chatbot tools and workflows and developed a solid understanding of CI/CD pipeline implementation and management. They also acquired knowledge of best practices for infrastructure automation and containerization and learned how to integrate security and monitoring into chatbot processes. The event provided a practical and insightful learning experience, equipping participants with the necessary skills to build and deploy Al-powered chatbots effectively.







#### WORKSHOP ON

## FUNDAMENTALS OF BLOCKCHAIN TECHNOLOGY

26 - 28 NOVEMBER, 2024





The Department of Computer Science & Engineering organized a three-day offline workshop on "Fundamentals of Blockchain" in two sessions: November 18-20, 2024 (III Sem B & C) and November 26-28, 2024 (III Sem A & D). Coordinated by Ms. Monika Bhatt, Ms. Charu Kavadia, and Mr. Pankaj Vaishnav, the workshop featured Mr. Rakshit Kothari as the resource person and had 120 participants. The inaugural session was attended by Dr. N.S. Rathore (Campus Director, GITS), Dr. Mayank Patel (HOD, CSE, GITS), and the participants. The primary objective was to provide students with a comprehensive understanding of blockchain technology, including its concepts, implementation, and smart contract creation using MetaMask.

The workshop was structured across three days. On Day 1, participants were introduced to the history and evolution of blockchain, its key concepts like distributed ledgers, cryptography, and consensus mechanisms, as well as the types of blockchains (public, private, and consortium). Discussions covered nodes, blocks, transactions, and miners, along with blockchain's benefits and limitations. Interactive activities included a Q&A session and a group discussion comparing blockchain to traditional databases.

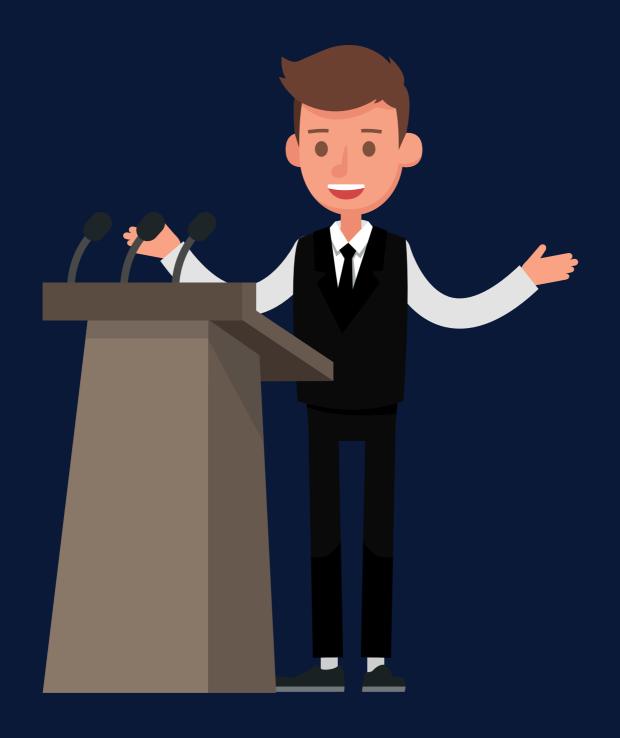
On Day 2, the focus shifted to technical aspects of blockchain. Participants explored consensus algorithms (Proof of Work, Proof of Stake, etc.), smart contracts and their real-world applications, and blockchain security and privacy concerns. They also learned about platforms like Bitcoin, Ethereum, and Hyperledger. Hands-on sessions included a demo of blockchain transaction flows and a simulation of a blockchain network using tools like Ganache or Remix.





On Day 3, participants explored blockchain applications in industries like finance, supply chain, and healthcare, as well as its role in cryptocurrencies, NFTs, and Web3. Challenges such as scalability, energy consumption, and regulatory issues were discussed, along with future trends in DeFi and beyond. Activities included a case study on blockchain in supply chain management and a group project where participants brainstormed blockchain-based solutions for real-world problems.

By the end of the workshop, participants gained a solid understanding of blockchain fundamentals, various platforms, and key technologies. They were able to analyze blockchain's applicability in different domains and acquired practical experience through hands-on activities and demos, equipping them with essential skills for the evolving blockchain landscape.



### EXPERT TALK

# ON CODE YOUR FUTURE 27 AUGUST, 2024

The Department of Computer Science and Engineering organized an offline session titled "Code Your Future" on August 27, 2024, from 10:30 AM to 11:45 AM, with Mr. Nilesh Tayal as the resource person. The event aimed to explore how software development can contribute to sustainability, inclusivity, and innovation, while ensuring security, accessibility, and ethical standards. The session was attended by 70 participants and was inaugurated by Dr. Mayank Patel, HOD, CSE, along with Mr. Pankaj Vaishnav, Mr. Rakshit Kothari, and faculty members from the department.



The session focused on the impact of technology in addressing global challenges such as climate change and accessibility. The speaker emphasized the role of ethical coding practices and the integration of emerging technologies like AI in creating sustainable software solutions. Participants gained valuable insights into how coding can be used not only to solve problems but also to create a better, more inclusive future.

The event successfully inspired students to think beyond traditional software development and consider its broader impact on society. By highlighting the importance of responsible and innovative coding, the session encouraged participants to contribute toward a more sustainable and ethical digital future.







## EXPERT TALK ON

#### **AI: BOON OR BANE**

23 DECEMBER, 2024



Computer The Department of Engineering, Science and collaboration with R-CAT, organized an offline awareness session titled "AI: Boon or Bane" on September 8, 2024, from 10:30 AM to 1:00 PM. The session was conducted by Ms. Rishika Khandelwal and aimed to provide insights into the impact of Artificial Intelligence (AI) on various life, industry, aspects of and society.

The event witnessed the participation of 200 attendees, including students and faculty members.

The session focused on Microsoft's Al initiatives and how Al is shaping the future. The speaker highlighted the benefits of Al, such as automation, efficiency, and advancements in healthcare, finance, and education, while also addressing its challenges, including ethical concerns, job displacement, and security risks. The discussion encouraged participants to analyze Al's dual nature—as both an enabler of progress and a potential risk to human decision-making and privacy.

By the end of the session, participants gained a comprehensive understanding of Al's influence on different sectors and the importance of responsible Al development. The event successfully fostered awareness about ethical Al usage, ensuring that future professionals are equipped to balance innovation with accountability.

#### EXPERT TALK ON

#### **GOOGLE SUMMER OF CODE 2025**

20 SEPTEMBER, 2024



Department Computer The of Engineering, Science and collaboration with Google Developer Student Clubs (GDSC), organized an Expert Talk on Google Summer of Code (GSoC) 2025 on September 20, 2024, from 9:30 AM to 12:00 Noon. The event, attended by 80 participants, featured Mr. Akshay Nandwana, a Software Development Engineer at Google, as the resource person.

The session aimed to educate students about GSoC, an annual open-source program that provides opportunities to work on real-world projects with open-source organizations.

The inaugural session commenced with a lamp lighting ceremony, followed by a welcome address from Dr. Mayank Patel, HOD, CSE, who greeted the dignitaries and participants. Dr. N.S. Rathore, Director of GITS, emphasized the significance of the digital era, encouraging students to utilize online resources and platforms like GSoC to enhance their knowledge and skills. The event was also attended by Dr. Vishal Jain , Dr. Deepak Paliwal and faculty members from various departments.



During the session, Mr. Akshay Nandwana shared his experiences and provided valuable insights into how students can participate in GSoC, improve their development skills, gain practical knowledge, and engage with the global open-source community. He highlighted the importance of open-source contributions, the application process, and strategies to increase selection chances. The seminar was well-received, fostering enthusiasm among attendees and encouraging them to explore open-source development.



The event was a great success, inspiring students to contribute to opensource projects and develop their technical expertise. The seamless execution of the session was ensured by the dedicated GDSC team, led by Ms. Ruchi Vyas. Overall, the seminar reinforced the importance of GSoC in career growth, motivating students to actively engage in the open-source ecosystem.

# ON COPILOT STUDIO 17 OCTOBER, 2024



The Department of Computer Science and Engineering organized an expert talk on Copilot Studio on October 17, 2024, from 10:00 AM to 11:45 AM. The session, led by Mr. Nilesh Tayal, aimed to explore the capabilities and impact of Copilot Studio in enhancing

software development through Al-driven assistance and collaboration. The event saw the participation of 70 attendees, including students and faculty members

The session was inaugurated by Dr. Mayank Patel, HOD CSE, GITS, who welcomed the resource person and introduced the objectives of the program. Other dignitaries present included Mr. Pankaj Vaishnav, Mr. Rakshit Kothari, and faculty members. Dr. Patel emphasized the importance of Al-driven tools like Copilot Studio in improving coding efficiency, real-time assistance, and collaborative development

During the session, the speaker provided insights into Copilot Studio's innovative features, demonstrating how it can streamline the software development process. The discussion covered practical applications, success stories, and best practices for integrating Copilot Studio into real-world projects. Participants learned how AI can enhance productivity, optimize workflows, and support developers in coding more effectively.





By the end of the session, attendees gained a comprehensive understanding of Copilot Studio's functionalities and its potential impact on the software industry. The discussion encouraged students to explore Al-driven tools to boost innovation and efficiency in their projects. The event successfully highlighted the future of Al-assisted development, equipping participants with valuable strategies to integrate Copilot Studio into their coding practices.

## EXPERT TALK ON

### ROLE OF GOOD HABITS IN MAKING A BRIGHT FUTURE 29 NOVEMBER, 2024

The Department of Computer Science and Engineering organized an insightful expert talk on "The Role of Good Habits in Making a Bright Future" on November 29, 2024. The session, led by Er. C.P. Jain, Former IEI ULC Udaipur, aimed to emphasize the transformative impact of positive habits on personal growth and long-term success. With an audience of 150 participants, including students and professionals, the event focused on practical strategies for cultivating self-discipline, productivity, and continuous improvement.



During session, the Mr. Jain shared his experiences and engaging anecdotes, illustrating how small, consistent actions can lead to significant life changes. He encouraged participants to reflect on their current habits. identify areas for growth, and building commit to routines aligned with their aspirations. The

interactive session provided valuable insights into maintaining discipline and fostering a success-driven mindset.





The valedictory session was led by Dr. Mayank Patel, HOD CSE, who summarized the key takeaways from the talk. Participants appreciated the initiative, acknowledging the department's efforts in organizing such an impactful session. The event concluded with a vote of thanks by Dr. Ruchi Vyas, recognizing the contributions of the guest speaker, Director Dr. N.S. Rathore, and Finance Controller Mr. B.L. Jangir. A token of gratitude was presented to the expert, marking the end of a session that left attendees motivated to implement positive habits in their daily lives for a brighter future.





## EXPERT TALK ON

### HEALTH-LLM: LARGE LANGUAGE MODELS FOR HEALTH PREDICTION

**23 DECEMBER, 2024** 



The Department of Computer Science and Engineering, GITS, organized an expert session of Dr. Heena Rathore, Assistant Professor at Texas State University, San Marcos, Texas, on 23rd December, 2024. She delivered an expert talk on the topic, "Health-LLM: Large Language Models for Health Prediction".

She gave valuable insights about AI, ML, Deep Learning, Natural Language Processing (NLP) and Large Language Models (LLMs). She explained the various forms of NLP and elaborated its application for understanding and generating Large Language Models. She also elaborated the history of NLP, and how LLMs can be trained on large amount of data and fine-tuned to perform specific tasks to get better results.

She also drew a comparison between Chat GPT 3 and GPT 4 and explained how people and therapists are using Chabot to support mental health. She explained that the data from wearable devices is fed into LLM to give a better personalized response by using optimal Bio marks. She also threw light on various useful LLMs like Dall-E, Image FX, Replica App and PaLM API.

Lastly, she enlightened the participants about the generation of Personalized Digital Twin Architecture and motivated the participants to use these LLMs but with their own expertise in the specified domain.

It was a very informative session, and the participants were able to comprehend the importance of LLMs in mental health support.







### CODING EVENT

### **CODING EVENT 14** NOVEMBER, 2024

The Department of Computer Science, in collaboration with the Google Developers Group (GDG), successfully organized Code Battle on 14th November 2024 from 12:15 PM to 3:15 PM IST in the AI Lab, CSE Department. The competition, featuring 90 participants, aimed to enhance students' problem-solving skills, technical expertise, and teamwork.

The event was coordinated by Dr. Mayank Patel (Team GDG GITS) and judged by Dr. Kanika Garg and Ritesh Jain. Distinguished guests, including B.L. Jangid (Finance Controller), Arvind Singh Pemawat (CDC Head), and Dr. Mayank Patel (HOD, CSE), emphasized the importance of coding in the industry.



inaugural The session began with a warm welcome from the Team Lead Charvi Bapna. The guests of honor delivered insightful speeches on the importance of coding, innovation, problemand solving skills in today's tech-driven world. The jury members were introduced, and the event structure and explained, rules were ensuring a smooth and fair competition.

The competition was structured into two rounds. The first round, DSA Round, tested participants' skills in data structures and algorithms, requiring them to solve complex problems under time constraints. The second round, Development Round, was domain-specific, where teams developed creative solutions based on a given theme or problem statement. Both rounds were designed to push the contestants to their limits, fostering innovation, strategic thinking, and collaboration.







After intense competition, the winners were announced. The first-place champions, Mohammed Saad, Mustak Khan, and Irshad Alam, dominated both rounds with their technical expertise and problem-solving abilities. Team Null Pointers, consisting of Swati Kunwar, Kushal Suthar, and Soumya Parikh, secured second place with exceptional teamwork and logical reasoning. Team Tech Coders, featuring Vishvaraj Singh, Shourya Dev, and Shubham Chouhan, earned third place, showcasing impressive strategic thinking and execution.



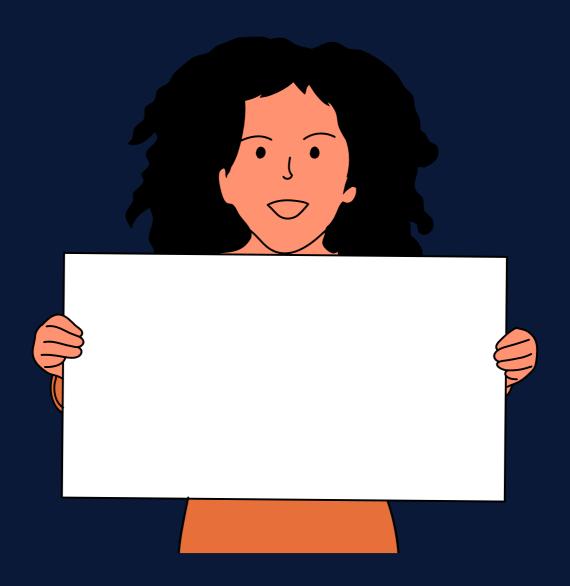


The valedictory session marked the conclusion of the event with the announcement of winners and expressions of gratitude to the jury, guests, organizers, and participants. The Coding Battle 2024 was a resounding success, achieving its objective of promoting technical excellence, collaborative problem-solving, and innovation. The enthusiasm and skill displayed by the participants were commendable, setting a high standard for future competitions. The event served as a testament to the growing passion for coding within the student community, making it a memorable and impactful experience for all involved









## POSTER COMPETITION

## POSTER COMPETITION ON SOFTWARE ENGINEERING

29 NOVEMBER, 2024



Department The of Computer Science and Engineering organized an Offline Poster Competition on the theme of Software Engineering 29th on November 2024. from 10:00 AM to 12:00 Noon. The event aimed creativity, encourage innovation, and awareness

about software engineering concepts and their real-world applications through visually appealing posters.

The competition had 220 participants, with Ms. Monika Bhatt Guruji, Dr. Kanika Garg, and Dr. Ruchi Vyas serving as event coordinators. The inaugural session began with a lamp lighting ceremony and a welcome address by Dr. Mayank Patel (HOD, CSE), followed by remarks from Dr. N.S. Rathore (Campus Director, GITS).

The Poster Competition on Software Engineering attracted 220 participants, showcasing 52 posters on topics like Financial Fraud Detection, Air Quality Monitoring, Cancer Detection, and Algorithms for Heart Failure. Participants demonstrated their understanding of software development, testing, project management, and emerging technologies. The winners were the Fraud Detection System Team (1st), E Shiksha Team (2nd), and Lung Cancer Detection System Team (3rd). The event brought together dignitaries, including the Finance Controller Mr. B.L. Jangir, heads of other departments, and students of CSE.

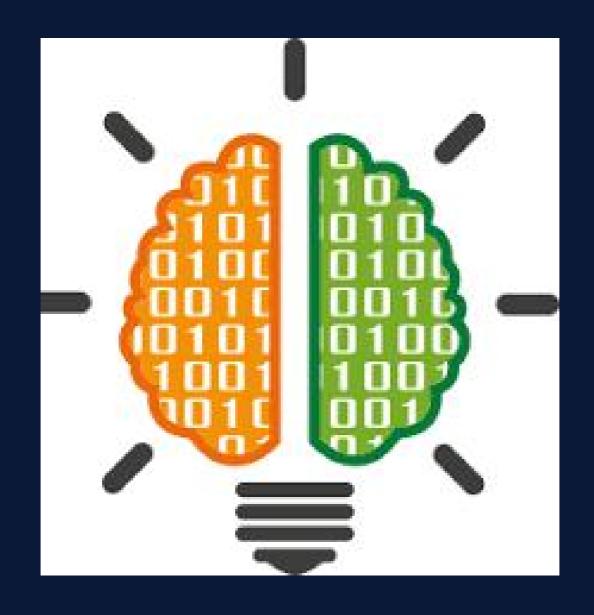




During the Valedictory Session, Dr Mayank Patel, HOD CSE, summarized the event Poster Competition and appreciated students for their enthusiasm and participation. The program was ended with vote of thanks by Dr Ruchi Vyas to Guest, Director Dr N.S. Rathore Sir , Finance Controller Mr. B.L. Jangir and they all gave prizes to winning students who secured first, second and third position.



Participants demonstrated their knowledge of software engineering principles and practices, creatively presenting ideas and solutions. The competition fostered a deeper understanding of the subject, enhanced visual communication skills, and inspired innovative thinking among the participants.



## INTERNAL SIH

### **INTERNAL SIH 2024**

#### 07 SEPTEMBER, 2024

The Internal Hackathon was successfully conducted on 7th September 2024 at the Department of Computer Science, GITS, Udaipur. A total of 22 teams participated, comprising 132 students (46 female and 86 male participants). The event was held offline and showcased remarkable innovation and teamwork from all participants.

#### **Problem Statement Attempted Details:**

S.N o.	Problem Statements (PS) attempted by teams	Total number of teams Participated against each PS
1	Developing innovative solution for efficient management of waste and conversion to valuable products, Waste to Energy- waste recycling	1
2	Rapid colorimetric and artificial intelligence-based methods for determining the microbial quality of raw milk, processed milk, and milk products	1
3	Grey Water Management (GWM) - Designing low-cost testing kits capable of detecting bacterial, faecal, and microbial contaminants in groundwater.	1
4	Automatic Road Extraction and alert generation for new roads	1
5	Innovatingfor Sustainability: Driving Smart Resource Conservation (Energy & Water) in Home Appliances (Refrigerators, Air Conditioners, Washing Machines and Desert Air Coolers)	1
6	Wearable sensor with Artificial Intelligence for prevention of falls in elderly people	1
7	Development of a non-electrical device for tracking the movement of the sun for movementof the solar panels, increasing their efficiency.	1
8	videocall intercom based on analog/IP system with vibration sensor	1
9	Enhancing body detection in CSSR Operations Using Advanced Technology	1
10	Al-Driven Crop Disease Prediction and Management System	1
11	Women Safety Analytics – Protecting Women from safety threats	1
12	Innovating for Sustainability: Driving Smart Resource Conservation (Energy & Water) in Home Appliances (Refrigerators, Air Conditioners, Washing Machines andDesert Air Coolers)	
13	To develop an Artificial Intelligence (AI) based model for electricity demand projection including peak demand projection for Delhi Power system	1

14	Smart Classroom Management Software for Enhanced Learning Environments			
15	Capturing Non-manual features of Indian Sign Language and converting it into text			
16	Indian Sign Language to Text/Speech translation			
17	Student Innovation			
18	Road Transport Network Telematics Develop a telematics solution to enable efficient trucking operations for the long haul to connect the country through route optimization, live tracking and monitoring, optimal capacity utilization analysis and to enable appropriate			
10	Interactive Skills Enhancer	1		
19	(ISE) : A Virtual Reality-Based Learning Tool for Children with ASD and ID			
20	Student Innovation			
21	Creating an application to identify the presence of government issued personally identifiable information (PII) embedded in documents and data, inadvertently or otherwise.	1		

#### Nominated Teams : Shortlisted Teams (22)

S.No.	Category	Problem Statement Number	Organization Name	Name of Team	Team Leader Name
1	Hardware	SIH1575	Ministry of Power	NEXUS CREATORS	Umang Pahuja
2	Hardware	SIH1560	Ministry of Fisheries, Animal Husbandry and Dairying	ECO HUSTLERS	Harshit Tailor
3	Hardware	SIH1567	Ministry of Jal Shakti	TEAM SAGA	Aditya Raj Singh Gahlot
4	Hardware	SIH1564	National Technical Research Organisation (NTRO)	PHOENIX	Devansh Rajpal
5	Hardware	SIH1524	Godrej appliances	SMART BYTES	Harshal
6	Hardware	SIH1580	Ministry of Social Justice and Empowerment	TECH INNOVATORS	HIRANYA SONI

7	Hardware	SIH1545	Department of Science and Technology	SPARK SQUAD	Ashik Ali
8	Hardware	SIH1578	inistry of Social Justice and mpowerment MED ELITE		RAJDEEP SONI
9	Hardware	SIH1566	The National Disaster Response Force (NDRF), MHA		Pratap Singh
10	Software	SIH1638	Ministry of Agriculture and PHOENIXBLAZE Farmers Welfare		Rhythm Sharma
11	Software	SIH1605	Bharat Electronics Limited (BEL)	SHIELD SISTERS	Mehul Pokharna
12	Software	SIH1525	Godrej Appliances	SMART BYTES	Rajat Kumar Paliwal
13	Software	SIH1624	Smart Automation	utomation DEBUGGING EARTH	
14	Software	SIH1625	Government of NCT of Delhi	TECHZEALS	Rudransh Maheshwari
15	Software	SIH1718	Ministry of Social Justice and Empowerment	CHAOS CODERS	Animesh Bhatt
16	Software	SIH1716	Ministry of Social Justice and Empowerment	HASH MONKS	Preet Tak
17	Software	SIH1597	AICTE, MIC-Student Innovation	QUANTUMX	Dhruv Paneri
18	Software	SIH1753	Smart India Hackathon 2024	TECH TITANS	Nizba Khan
19	Software	SIH1625	Government of NCT of Delhi	BUG MONKS	Nikhil Sharma
20	Software	SIH1712	Ministry of social justice and empowerment	UNITY Rimsha khilzi	
21	Software	SIH1601	AICTE, MIC-Student Innovation	TECH COMRADES	Devdath Sajayan
22	Software	SIH1668	Ministry of Electronics and Information Technology	PRAVIDHI	Kiran Patel

### Jury Details: Below are the Judge Details

S.No	Name	Designation	Organization	Mobile No.	Mail Id
1	Mr. Lokesh Puri Goswami	Director	Angirus Ind Pvt Ltd	9.7E+09	lpgoswami@angirusind.com
2	Mr. Saurabh Srivastava	System Engineer	Infosys Limited	8.2E+09	saurabhsri2028@gmail.com
3	Mr. Mohit Maheshwari	Director	NIMO Labs India Pvt ltd	9.8E+09	m_9512@yahoo.com
4	Mr. Nitin Purohit	Director	NIMO Labs India Pvt ltd	8.9E+09	labnimo@gmail.com
5	Mr Karan Singh Asoliya	Application Software Developer	Secure-Meters Pvt Ltd	9.4E+09	Karansinghasoliya8@gmail.c om

6 Mr Suraj Back End Webanix 9.3E surajrljoshi@gmail.com
Solutions Pvt Ltd +09

On 7th September 2024, GITS organized an Internal Hackathon as a preparatory step for the Smart India Hackathon 2024. During this 24-hour event, participants developed innovative solutions for problem statements provided by various Government Ministries and Industries. After thorough evaluation, the top 22 teams were selected by the college to represent GITS in the Smart India Hackathon 2024.



The event witnessed exceptional creativity and teamwork, with participants showcasing solutions that impressed the evaluators and highlighted their technical progress.

#### **Program Schedule:**

S.No.	Date	Time	Description	
1	22-09-2024	9:00 AM	Registration and Seat Allocation	
2	22-09-2024	9:15 AM	Start work on the SIH problem statements	
2	22-09-2024	10:30 AM	Inaugural Function	
3	22-09-2024	11:00 AM onwards	1st Round of Judging	
4	22-09-2024	12:15 PM to 12:45 PM	Lunch	
5	22-09-2024	12:45 PM Onwards	2nd Round of Judging	
7	22-09-2024	2:30 PM -2:45 PM	Buffer period for response to the judge	
/		2.30 PW -2.43 PW	queries/suggestions	
8	22-09-2024	2:45 PM - 3:30 PM	Result Declaration and Valedictory	

The Internal Hackathon at GITS commenced on 7th September 2024 with an inaugural session at 10:30 A.M. The event witnessed the presence of several distinguished dignitaries, including Dr. N. S. Rathore, Director, GITS; Mr. B.L. Jangir, Finance Controller, GITS; Dr. Mayank Patel, SPOC-SIH24 and HOD CSE, GITS; Dr. Manish Verma, HOD Civil, GITS; Dr. Deepak Palwal, HOD ME, GITS; Prof. Pradeep C, HOD ECE, GITS; Dr. Raunak Jangid, HOD EE, GITS; Dr. Jitendra Singh Chouhan, HOD MCA, GITS; and Mr. Arvind Singh Pemawat, Head CDC, GITS, along with all the faculty members and participants of GITS.

The programme was inaugurated by Dr. Mayank Patel, by welcoming all the cherished dignitaries and participants.

Dr. Ruchi Vyas, Assistant Professor, GITS welcome our eminent Guest and participants. Dr. Ruchi brief the importance of Smart India Hackathon and how this event will change the world in terms of technology and work culture.

Dr. N.S. Rathore, Campus Director- GITS, welcomed the guests and jury members and shared his valuable insights about the competition.

He motivated the participants to seize this opportunity to apply knowledge, skill, intellectuality, innovativeness, and creativity. He elaborated on the right steps to be followed, to prepare for such type of competitions. He suggested first understanding the basic objectives, goals, and guidelines of the competition at an individual level and then forming a team with appropriate frequency and understanding. Then, he threw light on the importance of critically going through all the problem statements and selecting a topic based on their strengths and weaknesses. He also suggested gathering books, taking brainstorming sessions, and performing the research work dedicatedly. The next step is to develop a prototype of the solution and then debug it through rigorous experimentation. The final step is to present the prototype and accept the suggestions made by the jury positively to gain perfection. Lastly, he encouraged the participants to keep taking up such opportunities with excitement in their mindset and wished them luck in the competition.





Students reported to the allocated space and continue their work to provide the best solution on the selected problem statements. First round of Judging was done at 11:00 AM. Judges understand the solution approach of the teams and gave some suggestions. PPT is evaluated during this time and teams are given changes.

Second round of Judging was done at 12:45 PM. Judges evaluate the teams on the parameters like Solution Approach, Criticality, Impact, Technology and Innovation.

Patel declared the winner teams. Dr. Mayank Patel Dr. Mayank congratulated all winners and expressed his sincere gratitude to the gathering and shared his valuable thoughts about the formation of the team, working on the problem with the right type of bonding and team spirit, and presenting their solution. He motivated the participants to interact with the jury members and take guidance from them for their betterment. All participant were appreciated by giving them certificate of participation by esteem judges and Directors. Dr. N.S. Rathore felicitated all the winners and encouraged them to convert their research outputs into business outcomes.





पुनरार तथ जम् एए कामीर की राजों के

ह्य हमने टेक्स के तकतेथी संख्याने के प्राची अपने रिसर्च के जीने विशेष प्रस्त किया गया विक संस्थानें के विकास में चेवदान करते पटेल के अनुसर पात साका द्वार प्रीपोर्गन मार्गावर साम्याओं के निरायण के लिए वैश्री समाधन प्रदान करते हैं। 24 पप्टे क्ष कियंन दे चलों में होता है। फल चल में क्षेत्र का अन्तिक क्षेत्रकी में किया के दिएम के केमान में 6 जब नियोगेय के पहारहा वंदे ने सीक्ष्मेंक अधारित क्रेसन क्रमेश्य मेरित मोध्री एवं देश और्पतन गोर पर 22 टीमों स्क्रीत भाग तिरह, किसमें नितन पुर्वतित, इंब्रॉसल के सीरभ क्षीत्रालक,

टेन डाविंग वर्ष 3 टेन मॉस्टोंग की मीएकेस टीम में में डिकींत अर्थ प्रका स्थान पर एवं हारियेश टीम इस्त्री हास्त्रीमें प्रथम बीनवर्द समस्याओं का भी तकनीकी समयान । स्थान पर रहे। सभी विकेत दोनें द्वितीय चारत में होने वाले राहीय मार के किस्पीन में प्रतिपार इस अवस्य या जिल निर्देश्य बीचन वरिद ने बड़ा अब वह अ गय है समय बे अन्य पीत की व्यक्ति के लिए कड़ किया जा और रेजार्स को समस्काओं का इन्वेरिकींग से अपनेको सम्बद्धाः निकाल जा



संस्था के निरोधक थी. एनएम राखेड़ ने

By end of judging round, results are accumulated and wait for the responses by some teams to the judge's queries/suggestions. After final evaluation teams are finalized to be nominate.









Receiving an overwhelming response with participants, this event came to an end with valedictory session, graced by Guest and all Judges. Dr. N. S. Rathore and Mr. B.L. Jangir gave memento to judges as token of appreciation.



## ORIENTATION GDG SESSION

## ORIENTATION GDG SESSION

5 OCTOBER, 2024

The Department of Computer Science at GITS, in collaboration with Google Developer Student Clubs (GDSC), successfully organized the GDG Orientation Session and Gen Al Study Jam Workshop on 5th October 2024 in the CSE Seminar Hall. The event witnessed enthusiastic participation from 180 attendees and was coordinated by Ms. Ruchi Vyas from Team GDSC GITS, with Charvi Bapna as the GDG on Campus Organizer.



Held in an offline mode, the workshop aimed to empower students by enhancing their development skills, fostering knowledge, and connecting them with like-minded peers to support their personal and professional growth.

The GDG Orientation Session and Gen AI Study Jam Session began with an inaugural session led by Dr. Mayank Patel, Head of the Department (HOD) of CSE, GITS. The GDG team expressed their heartfelt gratitude to the HOD and the Department of Computer Science for their unwavering support and encouragement in organizing the event. They introduced themselves, shared the vision of the Google Developer Student Clubs (GDSC), and highlighted the numerous benefits of being part of a dynamic developer community.

The Gen AI Study Jam session covered a wide range of engaging topics. It began with an Introduction to Generative AI, providing an overview of its applications, potential, and growing impact on technology and the future. Participants gained valuable insights into the transformative role of AI in modern industries.

The session also included a detailed Gen Al Study Jam Overview, which explained the program's structure, objectives, and learning paths. Attendees were given a step-by-step guide on how to register, participate, and complete the learning modules. Topics such as Natural Language Processing, Image Generation, and Al Ethics were outlined as key areas of focus in the program.

To further support the participants, the session introduced Strategies for Success, offering tips and resources for mastering AI concepts and completing practical labs. The resource person shared guidance on overcoming common challenges and inspired attendees with experiences from previous participants who successfully completed the program.

Lastly, the session concluded with an overview of Rewards and Recognition, where participants learned about the exclusive swags and benefits available for the top 80 performers. The GDG team encouraged students to leverage the skills gained during the program for future projects and career opportunities, making the session both educational and motivational.















A valedictory session will be conducted after the completion of the Gen Al Study Jam program to honor top performers and distribute rewards.

The event saw an enthusiastic response, with active participation from first-year students. Many showed interest in joining GDG and participating in the upcoming Gen Al Study Jam.

The session inspired students to delve into AI technologies and make the most of learning opportunities provided by Google.



## ALUMINI TALKS

# ALUMNI TALK ON PLACEMENT PREPARATION FOR INTIME TECH BY MS. LOVISHA JAIN (2018-2022 BATCH B.TECH CSE STUDENT)

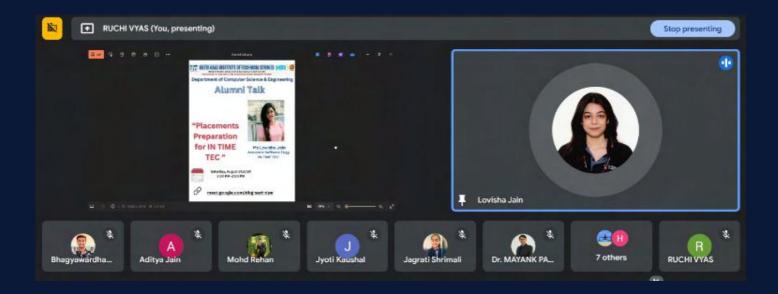
24 AUGUST, 2024



The Department Computer Science Engineering and Geetaniali Institute of organized **Studies** alumni an titled interaction "Placement Preparation for InTime Tech" on 24th August 2024 from 1:00 PM to 2:00 PM. Held online via Google Meet, the session was coordinated by Ms. Ruchi Vyas and featured Ms. Lovisha Jain, an accomplished alumna and Associate Software Engineer at InTime Tech, as the resource person.

The event saw active participation from 40 students and aimed to equip attendees with the skills, strategies, and confidence needed to excel in placements at InTime Tech. The program began with an inaugural session led by Ms. Ruchi Vyas, Assistant Professor, who warmly welcomed the alumni guest and participants. In his address, Dr. Mayank Patel, Head of the Department, emphasized the importance of such webinars highlighting how they offer practical insights and guidance, empowering students to approach placements with clarity and determination. He also thanked Ms. Lovisha Jain for dedicating her time and expertise to mentor the students and strengthen the alumni-student bond.

During the session, Ms. Lovisha Jain shared her journey from student to professional, stressing early preparation, a solid foundation in core subjects, and staying updated with industry trends. She provided insights into the recruitment process at In Time Tech, including technical tests, coding challenges, and interview techniques. The resource person emphasized the importance of mastering data structures, algorithms, and online coding platforms like LeetCode. Tips for excelling in technical and HR interviews were also shared.



The session concluded with an interactive Q&A, where students received personalized advice on technical preparation and career growth. Dr. Mayank Patel summarized the event outcomes and thanked the resource person. Participants gained valuable insights into interview techniques, communication skills, and the importance of final-year projects. This impactful session left attendees motivated and better prepared for their placement journey.

### ALUMNI TALK ON

## MASTERING POWER BI: UNLOCKING INSIGHTS WITH DATA VISUALIZATION BY MS. NEHA SOLANKI(2017-2019 BATCH M.TECH CSE STUDENT)

19 OCTOBER, 2024



The Department of Computer Science and at Geetanjali Institute Engineering Technical Studies organized an alumni interaction titled "Mastering Power Unlocking Insights with Data Visualization" on 19th October 2024 from 9:00 AM to 11:00 AM. The offline event coordinated by Dr. Ruchi Vyas and featured Neha Solanki, an accomplished alumna, as the resource person. A total of 80 students participated in the session, equipping attendees aimed at advanced skills in Power BI for business intelligence and data visualization.

The program began with an inaugural session where Dr. Mayank Patel, HoD Computer Science and Engineering, welcomed Ms. Neha Solanki and emphasized the value of alumni interactions for career guidance and building a strong professional network.

The session provided a comprehensive understanding of Power BI's features, including creating interactive dashboards, real-time reports, and advanced data modeling. Participants learned best practices for data preparation, DAX (Data Analysis Expressions) for complex calculations, and automation of reporting processes. The discussion also covered integrating external data sources and securely sharing insights within organizations.





In the valedictory session, Dr. Mayank Patel summarized the session outcomes and extended heartfelt thanks to Ms. Neha Solanki for her insightful talk. He commended the department for organizing such impactful interactions.

The event achieved its objective of empowering students to utilize Power BI effectively for creating actionable business intelligence solutions, leaving attendees with valuable skills to support data-driven decision-making.



## INDUSTRIAL VISITS

### **INDUSTRIAL VISIT**

### AT

### FUSION BUSINESS PRIVATE LTD., UDAIPUR

11 SEPTEMBER, 2024



The Department of Computer Science and Engineering at Geetanjali Institute of Technical Studies organized a highly insightful industrial visit to Fusion Business Pvt. Ltd. (FBSPL) in Udaipur. The visit, aimed at providing students with practical knowledge of advanced IT solutions and business technology integration, saw the participation of 50 students and 2 faculty members. The event was efficiently coordinated by Dr. Paras Kothari and Mr. Rakshit Kothari.

Fusion Business Pvt. Ltd. is a leading B2B organization specializing in business process management and consulting, offering students a valuable opportunity to witness real-world business operations.

During the visit, the students interacted with industry professionals who provided valuable insights into the challenges faced by businesses and the role of technology in solving them. This experience allowed students to connect academic learning with industry practices, offering them a broader perspective of the IT sector.

The highlight of the visit was a session conducted by Mr. Naveen Tak, Head of the Software Department at FBSPL. Mr. Tak provided an in-depth overview of the Software Development Life Cycle (SDLC) and Agile methodologies, helping students understand the processes that underpin software development. He also shared valuable advice regarding the interview process, emphasizing the skills required to excel in the industry.

The visit not only enriched the students' understanding of the IT sector but also helped them develop essential networking skills, as they interacted with professionals and gained insights into career opportunities within the industry. Furthermore, the event inspired students to innovate and apply industry practices to their academic projects, fostering both their technical and professional growth.





This industrial visit proved to be an essential learning experience, reinforcing the importance of bridging academic knowledge with practical exposure, and preparing students for successful careers in technology.

## INDUSTRIAL VISIT AT ARCGATE, UDAIPUR

12 DECEMBER, 2024

The Department of Computer Science and Engineering at Geetanjali Institute of Technical Studies organized an insightful industrial visit to ArcGate, Udaipur. The visit aimed to provide students with practical exposure to IT outsourcing, data solutions, and artificial intelligence (AI) technologies. A total of 40 students and 2 faculty members, Dr. Paras Kothari and Mr. Jitendra Sharma, participated in the visit, which offered valuable learning experiences.





ArcGate is a renowned IT outsourcing company, specializing in data annotation, artificial intelligence, machine learning, and customer support services. This visit provided students with a firsthand look at real-world business operations, technological advancements, and industry workflows.

During the visit, students interacted with industry professionals who shared insights into outsourcing business models, global client management, and data-driven decision-making. The experience helped students connect their academic learning with industry practices, broadening their understanding of the IT services sector.

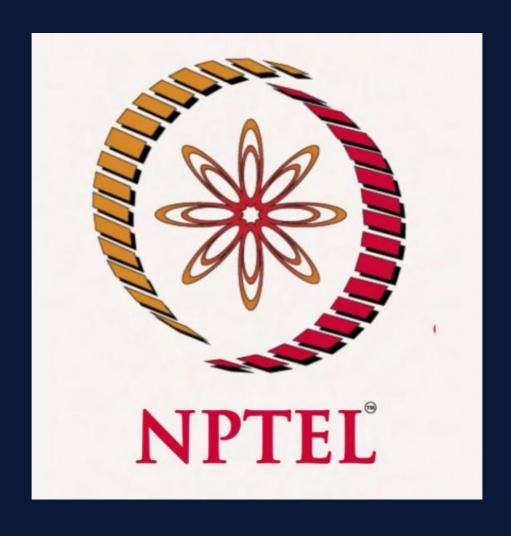
The highlight of the visit was an interactive session conducted by senior managers at ArcGate, who provided an in-depth overview of the data annotation process and its role in AI and ML development. The session also covered quality control measures, collaboration in IT projects, and essential skills required for career growth in the industry. Additionally, students gained valuable knowledge about the Software Development Life Cycle (SDLC), database management, and real-world applications of software engineering concepts.





Beyond technical knowledge, the visit helped students develop networking skills, interact with professionals, and explore career opportunities in the IT outsourcing industry. The event encouraged students to apply industry best practices to their academic projects and inspired them to pursue careers in AI, ML, and data analytics.

This industrial visit proved to be a valuable learning experience, reinforcing the importance of practical exposure alongside academic knowledge. It played a crucial role in preparing students for future careers in the technology sector, equipping them with industry-relevant skills and professional insights.



## NPTEL ACHIEVERS

The students of CSE and CSE-Al have showcased exceptional performance beyond their regular academics by successfully completing NPTEL courses. Their dedication to learning outside the classroom is truly commendable. Here is the list of students who have excelled in this extra-curricular achievement.

S. No.	Course Id	Course Name	Name	Certificate Type	Topper
1	noc24-cs75	Data Base Management System	Charvi Bapna	Elite	
2	noc24-cs75	Data Base Management System	Darshan Jain	Elite	
3	noc24-cs75	Data Base Management System	Nileshwari Joshi	Successfully Completed	
4	noc24-cs75	Data Base Management System	Riddhi Raj Rathore	Successfully Completed	
5	noc24-cs75	Data Base Management System	Ronak Choudhary	Successfully Completed	
6	noc24-cs133	Data Science for Engineers	Khush Tiwari	Elite	
7	noc24-cs133	Data Science for Engineers	Umang Pahuja	Elite	
8	noc24-cs133	Data Science for Engineers	Animesh Bhatt	Elite	
9	noc24-cs133	Data Science for Engineers	Prerak Ameta	Successfully Completed	
10	noc24-cs133	Data Science for Engineers	Mehul Pokharna	Successfully Completed	
11	noc24-cs81	Introduction To Machine Learning - IITKGP	Mouli Shree Sharma	Elite+Silver	
12	noc24-cs81	Introduction To Machine Learning - IITKGP	Nitya Vijayvargiya	Elite+Silver	
13	noc24-cs81	Introduction To Machine Learning - IITKGP	Nikhil Jitendra Kumar Vaishnav	Elite	
14	noc24-cs68	Python for Data Science	Mahesh Vyas	Elite	
15	noc24-cs68	Python for Data Science	Nagda Mohit	Elite	

S. No.	Course Id	Course Name	Name	Certificate Type	Topper
16	noc24-cs68	Python for Data Science	Nikhil Jitendra Kumar Vaishnav	Elite	
17	noc24-cs68	Python for Data Science	Umang Pahuja	Elite	
18	noc24-cs68	Python for Data Science	Deepesh Suthar	Successfully Completed	
19	noc24-cs80	Introduction to Operating Systems	Chhavi Bhatia	Elite	
20	noc24-cs80	Introduction to Operating Systems	Divya Sharma	Successfully Completed	
21	noc24-cs78	Programming, Data Structures and Algorithms using Python	Manan Bandi	Successfully Completed	
22	noc24-cs79	Design and Analysis of Algorithms	Shivam Pratap	Successfully Completed	
23	noc24-cs70	Introduction to Graph Algorithms	Anmol Singh Gangwar	Elite	
24	noc24-cs125	Programming in Modern C++	Shourya Dev Singh Rathore	Elite+Silver	Topper of 2% in this course
25	noc24-cs125	Programming in Modern C++	Kinjal Jain	Elite	
26	noc24-cs125	Programming in Modern C++	Somprakash	Elite	
27	noc24-cs125	Programming in Modern C++	Honey Patel	Successfully Completed	
28	noc24-cs125	Programming in Modern C++	Yogita Joshi	Successfully Completed	
29	noc24-cs125	Programming in Modern C++	Lavish Singhvi	Successfully Completed	
30	noc24-cs125	Programming in Modern C++	Mahak Rahi	Successfully Completed	

S. No.	Course Id	Course Name	Name	Certificate Type	Topper
31	noc24-cs125	Programming in Modern C++	Pallav Purohit	Successfully Completed	
32	noc24-cs125	Programming in Modern C++	Riddhi Raj Rathore	Successfully Completed	
33	noc24-cs125	Programming in Modern C++	Rekha Dangi	Successfully Completed	
34	noc24-cs125	Programming in Modern C++	Yakshi Choubisa	Successfully Completed	
35	noc24-cs125	Programming in Modern C++	Shubham Chouhan	Successfully Completed	
36	noc24-cs125	Programming in Modern C++	Shriya Ameta	Successfully Completed	
37	noc24-cs125	Programming in Modern C++	Shubham Vaishnav	Successfully Completed	
38	noc24-cs125	Programming in Modern C++	Siddhant Singh Rajput	Successfully Completed	
39	noc24-cs101	Introduction to Machine Learning	Rudransh Maheshwari	Successfully Completed	
40	noc24-cs101	Introduction to Machine Learning	Vaishali	Successfully Completed	
41	noc24-cs101	Introduction to Machine Learning	Animesh Bhatt	Successfully Completed	
42	noc24-cs101	Introduction to Machine Learning	Sakshi Kumari	Successfully Completed	
43	noc24-cs101	Introduction to Machine Learning	Yashashav Goyal	Successfully Completed	
44	noc24-cs101	Introduction to Machine Learning	Shobhit Yadav	Successfully Completed	
45	noc24-cs101	Introduction to Machine Learning	Sumayya Fatima	Successfully Completed	

S. No.	Course Id	Course Name	Name	Certificate Type	Topper
46	noc24-cs105	Programming in Java	Mouli Shree Sharma	Elite	
47	noc24-cs105	Programming in Java	Divya Sharma	Successfully Completed	
48	noc24-cs118	Cloud Computing	Khush Tiwari	Elite+Silver	Topper of 5% in this course
49	noc24-cs118	Cloud Computing	Nitya Vijayvargiya	Elite+Silver	
50	noc24-cs118	Cloud Computing	Mahesh Vyas	Elite	
51	noc24-cs113	The Joy of Computing using Python	Harshita Paliwal	Elite	
52	noc24-cs131	Google Cloud Computing Foundations	Yash Chittora	Elite	
53	noc24-cs131	Google Cloud Computing Foundations	Satyam Joshi	Successfully Completed	
54	noc24-cs96	Data Structure and Algorithms using Java	Shivam Pratap	Elite	
55	noc24-cs116	Introduction To Algorithms and Analysis	Disha Pancholi	Elite	
56	noc24-cs83	Computer Architecture	Yash Chittora	Successfully Completed	
57	noc24-cs121	Cyber Security and Privacy	Divyanshi Shrimali	Successfully Completed	
58	noc24-hs159	Educational Leadership	Vishakha Sahu	Elite+Gold	
59	noc24-hs176	Developing Soft Skills and Personality	Kinjal Jain	Elite	
60	noc24-hs124	Soft Skills	Vishakha Sahu	Elite+Silver	
61	noc24-cs108	Operating System Fundamentals	Anmol Singh Gangwar	Successfully Completed	



## STUDENT ACHIEVEMENTS

#### **SIH 2024**

#### 11 DECEMBER - 15 DECEMBER, 2024

Team Debugging Earth, emerged as the winner of the Smart India Hackathon (SIH) 2024 Hardware Edition, held at Bhilai Institute of Technology (BIT), Durg, from December 11th to 15th. Competing in the Travel and Tourism category (PSID 1531), team developed an Al-based hardware model aimed at enhancing travel and tourism in the state. Their innovation and dedication earned us the prestigious winner's title along with a ₹1 lakh cash prize.

This achievement was made possible by the relentless efforts of the talented team members:

- Harshit Borana (Computer Science and Engineering)
- Parth Sharma (Computer Science and Engineering)
- Mugdh Mathur (Computer Science and Engineering)
- Tanay Chourasiya (Computer Science and Engineering AI)
- Nitin Purohit (Electronics and Communication Engineering)
- Mahak Rahi (Computer Science and Engineering)

This victory marks a significant milestone for our team and reflects commitment to innovation and problem-solving.



#### TiE U Ideathon-2024

#### 17 OCTOBER 2024

Team Vision Virgil has emerged as the Winner of the prestigious TiE U Ideathon-2025, organized by TiE Udaipur competing against top colleges and won a cash prize of ₹11,000 for their groundbreaking innovation in Al-based solutions.

The team developed an Al-powered navigational stick designed to assist visually impaired individuals. This smart device can identify nearby objects and people, monitor the user's health, and provide real-time assistance, significantly enhancing the quality of life for the visually impaired.

The winning team members include

- Pratap Singh Naruka (Electronics and Communication Engineering)
- Shubham Chouhan (Computer Science and Engineering)
- Eshasvi Soni (Computer Science and Engineering)
- Devendra Prajapat (Computer Science and Engineering)



### Innovate Hackathon 2024 17 OCTOBER - 19 OCTOBER 2024

Team Tech Titans has secured 1st Prize in the prestigious National Level Hackathon held at JECRC University, Jaipur. Competing against 147 teams from across the country, the team showcased their technical excellence and problem-solving skills, emerging victorious with their Al-based Animal Intrusion Detection System.

The winning team member

- Mohd. Furgan (Electronics and Communication Engineering)
- Aditya Singh (Computer Science and Engineering)
- Mohit Joshi (Computer Science and Engineering)
- Aditi Maheshwari (Computer Science and Engineering)

They demonstrated outstanding innovation and dedication, earning a cash prize of ₹50,000. Their Al-driven solution aims to prevent animal intrusion in farmlands, ensuring the safety of both wildlife and crops.

This achievement marks yet another milestone for GITS, reinforcing our commitment to fostering innovation and technological advancements. Congratulations to Team Tech Titans for their remarkable success!



#### **CODEFIESTA 3.0 2024**

#### 17 OCTOBER - 18 OCTOBER 2024

Team Eco Hustlers has won CODEFIESTA 3.0, a prestigious national-level hackathon held at the Global Institute of Technology (GIT), Jaipur. Competing against 170 teams, they secured 1st position in the sustainability theme and won a cash prize of ₹25,000.

The winning team members,

- Manish Sahu (Computer Science and Engineering)
- Mahak Rahi (Computer Science and Engineering)
- Dipesh Soni (Computer Science and Engineering)
- Amrit Jha (Computer Science and Engineering)

They developed an innovative IoT-based device designed to detect rotten food and milk adulteration, addressing critical issues in food safety and sustainability.

We extend our heartfelt gratitude to our Director for his valuable guidance and support, which played a crucial role during the evaluation process. This award-winning product was developed at the Centre for Innovation and Incubation, GITS, under the mentorship of Latif Khan.

These remarkable achievements reflect the dedication and innovation of our students, reinforcing GITS' commitment to excellence in technology and research. Congratulations to both winning teams for making us proud!



#### **SMART IDEATHON 2024**

#### 13 DECEMBER - 14 DECEMBER 2024

Team Eco Hustler has successfully advanced to the semi-finals of Smart Ideathon 2024 with their groundbreaking innovation, the "Microscan Device." Competing against 55,000 teams, they secured a place among the Top 100 teams and cleared the second round. Now, they are set to represent GITS on an international stage at Gitam University, Bengaluru.

#### The team members include

- Harshit Tailor (Computer Science and Engineering)
- Shubham Vaishnav (Computer Science and Engineering)
- Mahak Rahi (Computer Science and Engineering)

They have showcased exceptional innovation, dedication, and problemsolving skills. Their Microscan Device reflects a strong commitment to sustainability and cutting-edge technology, making a significant impact in the field.

Smart Ideathon 2024 offers cash prizes and grants up to ₹30,00,000, along with a fully/partially sponsored trip to Boston, USA, for six selected founders/co-founders to attend an Immersion Program at Northeastern University.







### PLACEMENTS

Here is the list of CSE and CSE-Al students who have secured placements through the college placement drive. Their hard work and skills have paved the way for exciting career opportunities in top organizations.

S.NO.	STUDENT NAME	BRANCH	COMPANY NAME	PROFILE	PACKAGE
1	RIYA AMETA	CSE	GATEWAY GROUP	SOFTWARE DEVELOPER	4-8 LPA
2	BHOLERAM PATIDAR	Al	GKM IT	PYTHON DEVELOPER	5-7 LPA
3	LOKESH MONANI	Al	GKM IT	DATA SCIENCE DEVELOPER	5-7 LPA
4	ADITYA KUMAR SINGH	CSE	IN TIME TECH	JUNIOR SOFTWARE ENGINEER	5.50 LPA
5	KHUSHAL SUTHAR	CSE	IN TIME TECH	JUNIOR SOFTWARE ENGINEER	5.50 LPA
6	RIYA AMETA	CSE	IN TIME TECH	JUNIOR SOFTWARE ENGINEER	5.50 LPA
7	RUDRANSH MAHESHWARI	Al	IN TIME TECH	JUNIOR SOFTWARE ENGINEER	5.50 LPA
8	VAISHALI	Al	IN TIME TECH	JUNIOR SOFTWARE ENGINEER	5.50 LPA
9	MANAS JOSHI	CSE	PAYMIND TECHNOLOGY	UNITY DEVELOPER	4.8 K
10	JAGRATI SHRIMALI	Al	PYROTECH	EXECUTIVE TENDER	18K PER MONTH
11	CHINMAY SINGHVI	CSE	ATOM GRID	SUPPLY CHAIN EXECUTIVE	8.40 LPA + 10 LPA ESOP
12	KHUSHAL SUTHAR	CSE	APP PERFECT	SOFTWARE ENGINEER	5.50 LPA
13	DIVYA SALVI	CSE	ARCGATE TECHNOLOGIES LLP	SOFTWARE ENGINEER	18K PER MONTH
14	NITYA VIJAYVARGIYA	CSE	ADVAIYA SOLUTIONS	MTS	4.50 LPA
15	JAHANVI KUMAWAT	CSE	ADVAIYA SOLUTIONS	MTS	4.50 LPA
16	KHUSHI SHEKHAWAT	CSE	ADVAIYA SOLUTIONS	MTS	4.50 LPA

S.NO.	STUDENT NAME	BRANCH	COMPANY NAME	PROFILE	PACKAGE
17	HARSHIT PALIWAL	Al	ADVAIYA SOLUTIONS	MTS	4.50 LPA
18	HARSHITA SINGH	CSE	ADVAIYA SOLUTIONS	MTS	4.50 LPA
19	SHUBHANSHU SHRIMALI	CSE	CARINA SOFTLABS PVT. LTD.	UNITY DEVELOPER	22K PER MONTH
20	PRIYANSH SAXENA	CSE	ARIAIQ TECHNOLOGIES LLP	SOFTWARE DEVELOPER	2.4 LPA DURING INTERNSHIP
21	SUJAL SAHU	CSE	V2 SOLUTIONS	ASSOCIATE SOFTWARE ENGINEER	4.20 LPA
22	NARENDRA PATEL	CSE	V2 SOLUTIONS	ASSOCIATE SOFTWARE ENGINEER	4.20 LPA
23	GOPESH SHARMA	CSE	V2 SOLUTIONS	ASSOCIATE SOFTWARE ENGINEER	4.20 LPA
24	SHASHANK PRAJAPAT	CSE	V2 SOLUTIONS	ASSOCIATE SOFTWARE ENGINEER	4.20 LPA
25	HITEN SONI	CSE	V2 SOLUTIONS	ASSOCIATE SOFTWARE ENGINEER	4.20 LPA
26	HARSHITA KUMAWAT	CSE	V2 SOLUTIONS	ASSOCIATE SOFTWARE ENGINEER	4.20 LPA
27	SHASHWAT SHARMA	CSE	INTELLIPAAT	BUSINESS DEVELOPMENT ASSOCIATE	9.0 LPA
28	KASHISH SHARMA	Al	INTELLIPAAT	BUSINESS DEVELOPMENT ASSOCIATE	9.0 LPA
29	LAKSHIKA SARUPRIA	Al	INTELLIPAAT	BUSINESS DEVELOPMENT ASSOCIATE	9.0 LPA
30	KARNOT BHAGYAWARDHA N	CSE	INTELLIPAAT	BUSINESS DEVELOPMENT ASSOCIATE	9.0 LPA

S.NO.	STUDENT NAME	BRANCH	COMPANY NAME	PROFILE	PACKAGE
31	PUNIT SONI	CSE	WEBSENOR	FLUTTER DEVELOPER	30K PER MONTH
32	KARNOT BHAGYAWARDHA N	CSE	LEARNING ROUTES	SALES ASSOCIATE	5.70 LPA
33	KASHISH SHARMA	Al	LEARNING ROUTES	SALES ASSOCIATE	5.70 LPA
34	KUSHAL SHARMA	CSE	LEARNING ROUTES	SALES ASSOCIATE	5.70 LPA
35	SANYAM UPADHYAY	Al	SECURE METERS LTD	GRADUATE ENGINEER TRAINEE	5.0 LPA
36	HARSHITA KUMAWAT	CSE	SECURE METERS LTD	GRADUATE ENGINEER TRAINEE	5.0 LPA
37	KUSHAL SHARMA	CSE	SECURE METERS LTD	GRADUATE ENGINEER TRAINEE	5.0 LPA
38	JAHNAVI KUMAWAT	CSE	SECURE METERS LTD	GRADUATE ENGINEER TRAINEE	5.0 LPA
39	KHUSHI SHEKHAWAT	CSE	SECURE METERS LTD	GRADUATE ENGINEER TRAINEE	5.0 LPA
40	HARSH SIKLIGAR	Al	SECURE METERS LTD	GRADUATE ENGINEER TRAINEE	5.0 LPA
41	JAYVEER SINGH SISODIYA	CSE	SECURE METERS LTD	GRADUATE ENGINEER TRAINEE	5.0 LPA
42	GAYATRI MOHANTY	CSE	ARCGATE TECHNOLOGIES LLP	SOFTWARE ENGINEER	18K PER MONTH
43	DARSHAN NYATI	Al	WEBSENOR	SOFTWARE ENGINEER	25K PER MONTH



#### IV SEM CSE TOPPERS

CSE and CSE-AI students have demonstrated outstanding academic excellence through their exceptional performance in examinations. Their dedication and hard work reflect their commitment to academic success and continuous learning.

1.



22EGICS113 RASHI JAIN **10** 

1.



22EGICS143 TEJASWINI PALIWAL **10** 

2.



22EGICS085 NANDANI SINGH KACHHAWA **9.72** 

3.



22EGICS019 CHARVI BAPNA **9.62** 

4.



22EGICS106 PURU JOSHI 9.6

5.



22EGICS061 KIRAN PATEL **9.55** 

#### IV SEM CSE (AI) TOPPERS

1.



22EGICA008 DIVYANSHI SHRIMALI **9.81** 

2.



22EGICA025 SNIGHDA GUPTA **9.36** 

3.



22EGICA006 DISHA PANCHOLI **9.23** 

4.



22EGICA011 JIGYASHA CHOUHAN **9.0** 

5.



22EGICA026 SOUMYA SETH 8.98

#### VI SEM CSE TOPPERS

1.



21EGICS056 KINJAL JAIN **9.74** 

2.



21EGICS055 KHUSHI SHEKHAWAT **9.72** 

3.



21EGICS114 TISHA JAIN **9.7** 

4.



21EGICS302 CHANDA SUTHAR **9.66** 

5.



21EGICS081 PRANJUL JAIN **9.62** 

#### VI SEM CSE (AI) TOPPERS

1.



21EGICA002 ALINA BANU **9.87** 

1.



21EGICA026 RUDRANSH MAHESHWARI **9.87** 

2.



21EGICA024 NITYA VIJAYVARGIYA **9.83** 

3.



21EGICA031 VAISHALI **9.74** 

4.



21EGICA013 HITIKSHA MANOTI **9.53** 

4.



21EGICA016 JIYA PALIWAL **9.53** 

5.



21EGICA020 LAKSHIKA SARUPRIA **9.51** 

#### **VIII SEM CSE TOPPERS**



20EGICS048
JAIVARDHAN SINGH SHAKTAWAT

10



20EGICS089 PRIYANSHI MAHESHWARI **10** 



20EGICS091 RAJYAVARDHAN SINGH RANAWAT **10** 



20EGICS096 RIYA SAHU **10** 



20EGICS115 TEENA KUNWAR CHOUHAN **10** 

#### VIII SEM CSE (AI) TOPPERS

1.



20EGICS006 AMISHA AJITH **10** 

1.



20EGICS024 DARSH PALIWAL **10** 

1.



20EGICS025 DEEPAK JINGAR **10** 

1.



20EGICS029 DIPTI SONI **10** 

1.



20EGICS030 DISHA PAMECHA **10** 

1.



20EGICS047 JAIN DHEERAJ KAILASH **10** 



## STUDENT ARTICLES

## STUDENT ARTICLE ON GENERATIVE AI



In the ever-evolving world of technology, Generative Artificial Intelligence (Gen AI) stands out as a revolutionary advancement, transforming how we create, communicate, and innovate. From generating art to solving complex problems, Gen AI is reshaping

industries and opening up new frontiers for students and professionals alike.

Generative AI refers to a subset of artificial intelligence that uses machine learning models to generate content. Unlike traditional AI systems designed to classify or predict, Gen AI creates something entirely new, such as text, images, music, or even 3D designs. At its core are models like Generative Adversarial Networks (GANs) and transformers, which enable machines to learn patterns and produce outputs that mimic human creativity.

he applications of Gen Al are vast and transformative. In the arts, it empowers creators to produce unique artworks and explore new design possibilities. In education, Gen Al provides personalized learning tools, generating tailored content to suit individual learning styles and needs. Healthcare is leveraging this technology for breakthroughs in drug discovery, the design of medical devices, and the development of personalized treatment plans. In the entertainment industry, Gen Al enhances gaming and filmmaking by generating realistic characters, immersive environments, and even compelling scripts. Businesses are also capitalizing on its potential to automate routine tasks, develop marketing strategies, and analyze customer behavior more effectively. For students, Gen Al presents an array of opportunities to enhance learning, develop essential skills for the future, and innovate solutions to real-world challenges.





brings ΑI also ethical Gen considerations, such as ensuring data privacy, addressing bias in Al models, preventing and misuse of Al-generated content. As the technology continues to evolve, its potential to transform industries and solve global challenges will only grow.

The future of Gen AI depends on how responsibly and creatively we embrace it, ensuring it serves as a tool for innovation, sustainability, and human advancement in this rapidly changing world. o fully potential of harness the AI. Generative collaboration between technology experts, policymakers, and educators is essential.

Establishing clear guidelines and ethical frameworks will ensure that Gen AI is used responsibly, addressing concerns like bias, misinformation, and data privacy. Governments and organizations must work together to create policies that regulate AI use while fostering innovation, ensuring that this powerful technology remains a force for good.

Education will play a pivotal role in preparing future generations to work with Gen Al. By integrating Al-focused curricula into schools and universities, students can develop the skills necessary to use these tools effectively and ethically.

By: Jatin Dangi, CSE 3rd Year

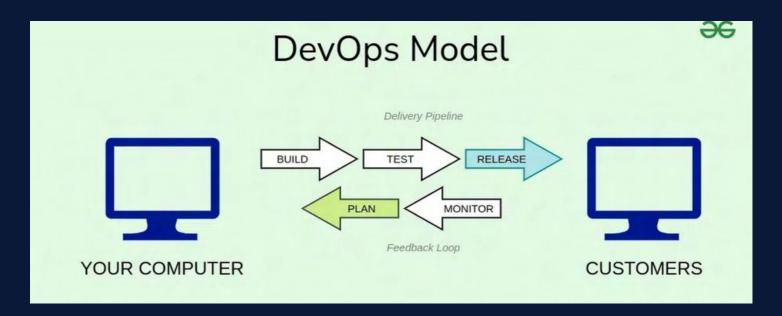
## STUDENT ARTICLE ON DEVOPS



In today's fast-moving tech world, software delivered quickly needs be and flawlessly. That's where DevOps comes in. It's not just a set of tools or processes-it's a culture that brings developers and IT together, ensuring smooth, teams automated workflows from codina to deployment. Instead of working in isolation, teams collaborate seamlessly, eliminating bottlenecks and reducing errors.

Traditionally, developers would write code and pass it over to IT teams, hoping it worked without issues. More often than not, this approach led to delays and breakdowns. DevOps changes the game by integrating development and operations, ensuring that software is built, tested, and deployed in a continuous and efficient manner. Automation plays a crucial role here, handling repetitive tasks, reducing human error, and making updates faster and more reliable.

The impact of DevOps is undeniable. Companies that adopt it experience faster software releases, improved system stability, and stronger security. Automated testing catches problems before they reach users, while real-time monitoring ensures systems are always performing optimally. Instead of fixing issues after they happen, teams prevent them altogether, creating a more resilient software environment.



To make DevOps work, various tools come into play. Jenkins automates testing and integration, Docker and Kubernetes help manage and deploy applications efficiently, and Terraform streamlines infrastructure setup. However, tools alone don't define DevOps—it's the collaboration and shared responsibility that make it powerful.

With businesses increasingly relying on software, the demand for DevOps professionals is skyrocketing. Roles like DevOps Engineer, Site Reliability Engineer, and Cloud Engineer offer exciting opportunities with excellent career growth. For students or aspiring tech professionals, diving into DevOps can be a game-changing move. Learning the basics through online courses, experimenting with tools, and obtaining certifications like AWS DevOps Engineer can provide a solid foundation.

DevOps isn't just a passing trend—it's shaping the future of software development. Companies are looking for professionals who can bridge the gap between coding and deployment, ensuring innovation doesn't come at the cost of reliability. For those passionate about problem-solving, automation, and efficiency, DevOps offers a rewarding path with limitless possibilities.

By: Charvi Bapna, CSE 3rd Year



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