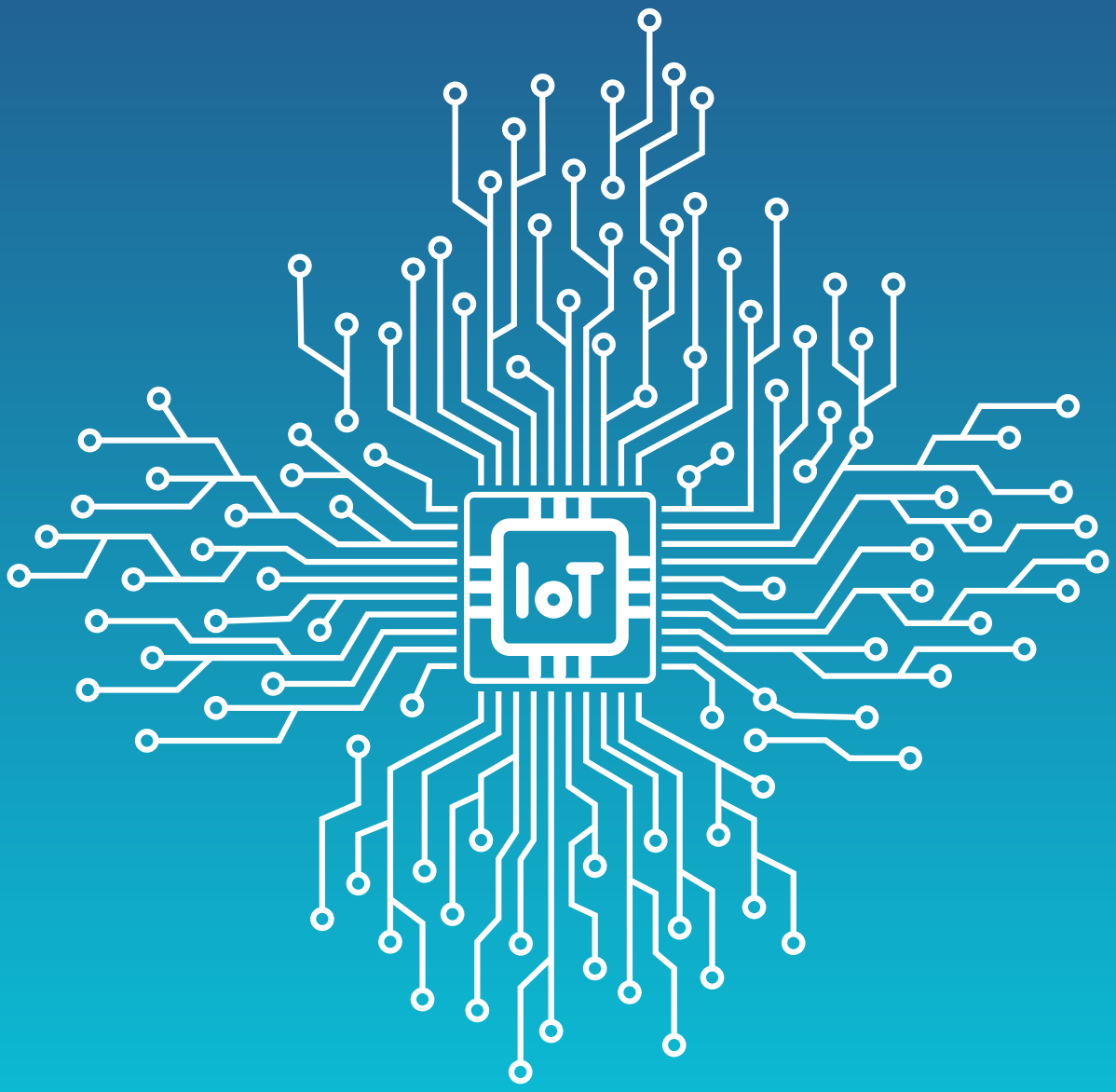
2025
Edition

Department of CSE-IOT

Synapse

Connecting Minds, Creating Futures



MEERUT INSTITUTE OF ENGINEERING AND TECHNOLOGY
NH 58, Delhi-Roorkee Highway, Baghpat Bypass Road Crossing,
Meerut, Uttar Pradesh 250005

Contents

MEERUT INSTITUTE OF ENGINEERING AND TECHNOLOGY
NH 58, Delhi-Roorkee Highway, Baghpat Bypass Road Crossing,
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Chairman's Message

Shri Vishnu Saran
Chairman, MIET

Shri Vishnu Saran, B.E. (Mechanical), Chairman of MIET, has obtained his B.E. (Hons.) degree from NIT Kurukshetra and then served the state of Uttar Pradesh for over 37 years as Director of Boilers. He is a man with an extraordinary perception of a better tomorrow for each student who enters the premises of MIET through the provision of the best possible resources one could ask for. He is a visionary who is carrying on the dream philanthropic project nurtured by his father, the Founder-Chairman of MIET Group, the Late Sri CS Agarwal. He strongly believes and follows the four golden principles for success laid by the honorable Late Smt. Indira Gandhi ji – Foresight, Hard Work, Determination and Discipline.

The strength of MIET indeed lies in his grit & determination, the forceful support by his excellent subordinates, and the overall study orientation through multi-development policies that have distinctly made MIET a name brightening up in progression each year.

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Vice Chairman's Message

Shri Puneet Agarwal

Vice Chairman, MIET

Shri Puneet Agarwal, vice-chairman of the MIET Group of institutions, is a Civil Engineering graduate from one of the prestigious Institutes of Technology, BHU, now known as IIT, BHU. He has done his PGDM from the Indian Institute of Management, Ahmedabad. He holds a rich experience of 24 years with multinational, Indian corporates, PSU, and consultancy firms and also in diverse industries including Power and Power Equipment, Textiles, Retail, Education, and IT. The areas of his strong exposure consist of Sales & Marketing, Engineering Design, Operations, and Corporate Finance. He has shown unalloyed dedication to invigorating the educational progress of students. His vowed mission is to enlighten and vitalize the pedantic capabilities of young minds and widen the horizons of their thoughts and feelings in all three educational campuses of higher learning under the MIET Group namely:

- Meerut Institute of Engineering and Technology(MIET), Meerut, U.P.
- Meerut Institute of Technology(MIT), Meerut, U.P.
- MIET Kumaon Engineering College, Haldwani, Distt. Nainital, Uttarakhand

Established in the year 1997, the MIET Group has more than 60 acres of land spread across the three campuses encompassing good roads along with many huge trees, nice pedestrian walkways, gardens, etc. in Uttar Pradesh as well as Uttrakhand. Many technical courses are being delivered in all three campuses in affiliation with the state technical universities while non-technical courses have affiliation to the state universities respectively.

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Campus Director's Message

Prof. (Dr.) S.K. Singh

Campus Director, MIET

We, at MIET College strongly believe that the holistic development of students is possible by focusing on core areas which are Concept Based Learning and Comprehensive Industrial Exposure.

We offer 360-degree nurturing for overall grooming and developing global competency. We are committed to excellence through innovations in the teaching and learning process and have been successful in maintaining high academic standards by taking appropriate steps to bridge the gap between industry and academia.

With the advent of new technologies, it is the responsibility of the academic sector to be upgraded as per the needs of the industry. The requirements and expectations of the industrial sector need to be identified and the grooming of students ought to be done accordingly by the academic institution.

Our institution is highly motivated and putting up sincere efforts in this direction. We have developed several state-of-the-art labs, Centres of Excellence (CoE), and Advanced R&D Labs and have signed a good number of MoUs with different industries at the College and Departmental Levels. Centres of Excellence are corporate training centres for renowned industries.

The students are provided with a cohesive platform to work on live industry-based projects. We are also engaged in providing hands-on training in the core and IT sectors and are highly motivated to bring the best out of our students.
We feel privileged to have world-class infrastructure and meticulous faculty and staff members who are committed to providing comprehensive development of students to groom them into successful engineers and empathetic human beings at large.

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Placement Director's Message

Ms. Akanksha Agarwal

Placement Director, MIET

At MIET, we believe in empowering our students with the skills, knowledge, and confidence to thrive in a dynamic professional world. The Training and Placement Cell works tirelessly to bridge the gap between academia and industry, ensuring our students are well-prepared to meet the expectations of leading organizations.

We are proud of the strong industry partnerships we've built over the years and remain committed to facilitating successful careers for our students. We welcome recruiters to engage with our talented pool of future-ready professionals.

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HOD's Message

Mr. Praveen Kumar Mishra

Head of Department (CSE-IoT)

Welcome to the Department of Computer Science and Engineering with a specialization in the Internet of Things (IoT) at Meerut Institute of Engineering & Technology (MIET). In an increasingly connected world, IoT is transforming how we live, work, and interact with our environment. Our department is committed to equipping students with the expertise and insight required to thrive in this dynamic and rapidly evolving domain.

Our curriculum is thoughtfully designed to blend core computer science fundamentals with specialized knowledge in IoT, embedded systems, cloud computing, and smart technologies. We strive to nurture professionals who are not only technically skilled but also capable of driving innovation and solving real-world problems across diverse sectors. With the support of experienced faculty and well-equipped laboratories, our students engage in practical, hands-on learning through projects, industry internships, and collaborative research initiatives. We emphasize creativity, critical thinking, and a strong sense of ethical responsibility to ensure students are well-prepared for the challenges of the future. The department actively nurtures student involvement in hackathons, technical workshops, and interdisciplinary initiatives, creating a vibrant academic environment where theoretical concepts meet practical applications.

We invite passionate and driven students to join us at MIET and take the first step toward becoming innovators and leaders in the ever-expanding world of IoT and intelligent systems.

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About The Program

2022 saw the establishment of the Department of Computer Science and Engineering (Internet of Things). The four-year B.Tech. program in computer science and engineering (internet of things) is offered by it. It is intended to provide technically sound workers with the ability to create smart devices that can communicate with one another to solve industry and societal challenges.

Almost everything may be made "smart" with IoT thanks to the power of cyber networks, AI, and data collection.

We can track, monitor, anticipate, manage, and control different systems in different industries more effectively thanks to IoT networks.

- It is predicted that by 2025, there will be over 21 billion IoT devices.
- Internet of Things applications related to supply chain management, home automation, smart cars, smart cities, and agriculture, among others
- Complete placement Guarantee with attractive package in multinational corporations such as Amazon, IBM, Microsoft, Infosys, CTS, TCS, Wipro, and so on
- The Internet of Things (IoT) is a multidisciplinary program with a wide range of applications that has seen significant growth in use in recent years. An expanding network of internet-connected gadgets with a variety of uses in engineering and research is referred to as the Internet of Things (IoT).

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Vision

To become a globally recognized department where talented frontier of the Internet of things (IoT) are nurtured to meet the need of industry, society, and economy to serve the nation and society.

Mission

- To provide resources of excellence and fresh mind into highly competent IoT application development, and enhanced their knowledge and skills through covering technologies and multi-disciplinary engineering practices.
- To equip students and provide the state- of- the art facilities to develop industry ready IoT system.
- To promote industry collaborations to have the best careers.

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PEOs

- PEO-1: To Lead Their Career as engineering practitioners to provide industry-accepted solutions to solve the industry's technological problems.
- PEO-2: To engage engineering professionals to develop the talent of critical thinking, design, and analysis to offer socially acceptable solutions to real-time problems in the domain of computing with global competence in technology development.
- PEO-3: To inculcate values, entrepreneurial skills, professional ethics, social awareness and responsibility to emerging technology leaders.
- PEO-4: To provide the technocrats with managerial and entrepreneur skills in a friendly environment for the successful pursuit of engineering and management.
- PEO-5: To absorb lifelong learning with research and create the right path to pursue their careers to adapt to the dynamic changes in technology and solve society complex problems.

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PSOs

- Develop ability to solve real life problems through programming concept using principle and concept of IoT.
- Apply various application and development tools of IoT to implement IoT applications.
- Ability to implement the concept, principle, and practices of IoT and enhance research skills to fulfill global requirements.

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POs

- 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.

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POs

- 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.

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Departmental Activities

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Project Expo

The department organized a grand Project Expo where final-year students presented their major projects. Faculty, juniors, and industry experts visited the stalls and appreciated the creativity and hard work. The event not only showcased technical innovation but also encouraged knowledge sharing and collaboration.

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Diwali Celebration

Diwali was celebrated with great enthusiasm and togetherness in the department. Faculty members came together to share sweets and exchange festive cheer. Gifts were also distributed to the support staff, spreading happiness and gratitude across the campus.

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Rukshat’25

The farewell ceremony Rukshat’25 was organized to bid adieu to the final-year students. The evening was filled with cultural performances, fun games, and emotional moments. Faculty and juniors extended their best wishes, making it a memorable send-off for the graduating batch.

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Faculty Achievements

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Patents

Invention Title	Holders
ML-POWERED REAL-TIME ACCIDENT AND FIRE DETECTION FOR ENHANCED EMERGENCY RESPONSE SYSTEMS	Assoc. Prof. Praveen Kumar Mishra
BLOCKCHAIN AND ARTIFICIAL INTELLIGENCE INTEGRATED IOT FRAMEWORK FOR 6G WIRELESS NETWORKS	Asst. Prof. Ajay Kumar Sah Asst. Prof. Mukesh Kumar Asst. Prof. Ritu Singh Asst. Prof. Meetu Mann Asst. Prof. Ravinder Kaur
INTELLIGENT SYSTEM FOR AUTONOMOUS DISEASE DETECTION IN INSULIN LEAVES USING CONVOLUTIONAL NEURAL NETWORKS	Asst. Prof. Ajay Kumar Sah
AN INTELLIGENT NLP ENABLED BLOCKCHAIN BASED SYSTEM FOR HOSPITAL BUSINESS MANAGEMENT AND BRAIN TUMOR PATIENTS CARE USING IOT SENSORS AND VGG16 NEURAL TECHNIQUES	Asst. Prof. Ajay Kumar Sah Asst. Prof. Ritu Singh
NIGHT PATROL ROBOT USING IOT	Asst. Prof. Ajay Kumar Sah Asst. Prof. Mukesh Kumar Asst. Prof. Ritu Singh Asst. Prof. Meetu Mann

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FDPs

CHAUDHARY CHARAN SINGH UNIVERSITY, MEERUT, UTTAR PRADESH
Sir Chhotu Ram Institute of Engineering and Technology

CERTIFICATE
OF PARTICIPATION

This is to certify that Mr./Mrs./Dr. **Ajay Kumar Sah, Assistant Professor** **MIET MEERUT** has successfully participated in the **Six Days Faculty Development Program** on **"The Recent Trends of Big Data and Artificial Intelligence in the Field of Computer Science & Agriculture Engineering"**, organised by the **Department of Computer Science and the Department of Agriculture Engineering** held during **05th February - 12th February 2024.**

Er. J.R.Bentham (Co-Convenor)
Er. Milind (Convenor)
Prof. Niraj Singhal (Director) SCRIET,CCSU,Meerut

MIET

CERTIFICATE
OF PARTICIPATION

This certificate is presented to

Praveen Kumar Mishra

For attending
the National webinar "**Sensitization to Outcome-Based Education for Academic Excellence**"

organized by
The Internal Quality Assurance Cell (IQAC) Meerut Institute of Engineering & Technology, Meerut

on
8th February 2025

Mr. Praveen Kr. Chakravarti (IQAC Coordinator)
Dr. Sanjeev Singh (Dean Academics)
Dr. S.K. Singh (Director)

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Student Achievements

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Top 3 Placements

Shivam Verma
HCLTech

Khushi Tyagi
Circle K

Abhinav Chauhan
LTIMindtree

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Placement Records

Roll No	Name	Company
2100681550002	Abhinav Chauhan	LTIMindtree
2100681550003	Abhishek Bhardwaj	Global Logic
2100681550010	ANISHKA SHARMA	Chetu
2100681550011	ANJANI SOM	Xziant Communication Pvt. Ltd.
2100681550019	Avantika sharma	Jiffy Software Solutions
2100681550019	Avantika sharma	Intellipaat
2100681550019	Avantika sharma	Wayspire Ed Tech P Ltd
2100681550020	Avni Goel	Softair Technology
2100681550023	Deepanshi Sonkar	Wayspire Ed Tech P Ltd
2100681550024	DHRUV AGARWAL	Chetu
2100681550025	Divyansh Pandey	Global Logic
2100681550026	GARV VERMA	Xziant Communication Pvt. Ltd.
2100681550026	Garv Verma	Global Logic
2100681550026	GARV VERMA	Collabera

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Placement Records

Roll No	Name	Company
2100681550034	Khushaansh Kumar	Global Logic
2100681550034	KHUSHAANSH KUMAR	Centilytics
2100681550042	MISHA	Infinity Education
2100681550042	Misha Trigun	DFreeNovelish
2100681550042	MISHA	Hike Education
2100681550043	MOHD.ZUBAIR	VACO BINARY
2100681550044	MRINAL VISHNOI	Infinity Education
2100681550044	MRINAL VISHNOI	Hike Education
2100681550051	Rohit Diwan	Cincooni
2100681550051	ROHIT DIWAN	AventIQ
2100681550053	SHIVAM VERMA	HCL
2100681550057	VAIBHAV GUPTA	LENSCORP AI Private Limited
2100681550045	PAKHI GUPTA	Eazy ERP Technologies Pvt. Ltd.
2100681550052	SEEMA DAS	Planet spark

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Research Papers

Paper Title	Students Name	Supervisor
Smart Plant Monitoring System Using IOT and BLYNK	Shivam Verma Avantika Sharma Lucky Yadav	Asst. Prof. Meetu Rani
Smart Iot-Based Framework for Real-Time Accident Detection and Ambulance Response System	Anuj Narang Kunal Singh	Asst. Prof. Meetu Rani
The Impact of Integrating IOT in URBAN DEVELOPMENT	Abhinav Chauhan Ayu Tyagi Khushi Tyagi	Asst. Prof. Ritu Singh
Flood Monitoring System	Arpit Garg Anjani Som Seema Das	Asst. Prof. Meetu Rani
IoT Based Soil Monitoring System Using Arduino UNO and Thinkspeak	Rohit Diwan Avni Goel Aditya Bharadwaj	Asst. Prof. Mukesh Kumar
Smart Contactless Doorbell System Using ESP32-CAM	Khushaansh Kumar Pakhi Gupta Kanishk Saini Raghav Singhal	Asst. Prof. Ritu Singh
Arduion RC Car	Shruti Sharma Soniya Yadav	Asst. Prof. Ritu Singh
Automate the Micro Furnace	Dhruv Agarwal Aryan Aryan Mittal	Asst. Prof. Mukesh Kumar
Smart Agriculture Monitoring System Using Arduino Uno	Mrinal Vishnoi Misha Trigun Aditya Godfrey	Asst. Prof. Meetu Rani

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Research Papers

Paper Title	Students Name	Supervisor
Smart IoT-Based Health Monitoring System	Aditya Yadav Arpit Vishnoi Aryan	Asst. Prof. Ritu Singh
IoT Based Smart Parking System	Anshita Bansal Riya Singhal Deepanshi Sonkar	Asst. Prof. Ritu Singh
Smart Biometric Door Lock System With Facial Recognition and Fingerprint Authentication	Abhishek Bhardwaj Akshat Pal Divyansh Pandey Krishan Kumar	Asst. Prof. Ritu Singh
Flood Monitoring System	Arpit Garg Anjani Som Seema Das	Asst. Prof. Meetu Rani
Driver Drowsiness Detection System Using Raspberry Pi	Anishka Sharma Garv Verma Manmay Garg Manas Mittal	Asst. Prof. Mukesh Kumar
Train Accident Prevention: A Comprehensive Approach to Safety Enhancements	Harsh Malik Mohd. Zubair	Asst. Prof. Ajay Kumar Sah
RFID-Based Smart Parking System	Chirag Chauhan Harsh Rathi Lavish Ahlawat	Asst. Prof. Ajay Kumar Sah

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Certifications

ISRO START Programme Achievement

Our student, Ms. Ananya Agarwal (Meerut Institute of Engineering and Technology), successfully participated in the prestigious Space Science and Technology Awareness Training (START) programme conducted by ISRO from 9th to 29th January 2025. She earned an A+ grade with 96% attendance, completing 19 hours and 30 minutes of rigorous training. This achievement reflects the department's commitment to nurturing talent and encouraging students to explore the frontiers of space science and technology.

भारत सरकार/GOVERNMENT OF INDIA
अंतरिक्ष विभाग /DEPARTMENT OF SPACE
भारतीय अंतरिक्ष अनुसंधान संगठन /INDIAN SPACE RESEARCH ORGANISATION (ISRO)

CERTIFICATE OF MERIT/योग्यता प्रमाण पत्र

नामांकन सं. / Enrolment No.:
20251552672476

SPACE SCIENCE AND TECHNOLOGY AWARENESS TRAINING (START)

यह प्रमाणपत्र
MS. ANANYA AGARWAL
(मेरठ इंस्टीट्यूट ऑफ इंजीनियरिंग एंड टेक्नोलॉजी)
को "अंतरिक्ष विज्ञान और प्रौद्योगिकी का अवलोकन"
में ऑनलाईन प्रशिक्षण कार्यक्रम में भाग लेने पर प्रदान किया जाता है।
इस ऑनलाइन प्रशिक्षण कार्यक्रम का आयोजन 2025-01-09 से 2025-01-29 (कुल प्रशिक्षण कार्यक्रम की अवधि = 19 घंटे 30 मिनट) के दौरान किया गया।

THIS CERTIFICATE IS
AWARDED TO
MS. ANANYA AGARWAL
(*Meerut Institute of Engineering and Technology*)
ON HAVING PARTICIPATED IN THE ONLINE TRAINING PROGRAMME ON
"Space Science and Technology awareness training (start)"
THIS ONLINE TRAINING PROGRAMME WAS CONDUCTED DURING **09 January 2025 to 29 January 2025** (Total course duration = 19 hours and 30 minutes).

EXAM GRADE: A+
ATTENDANCE: 96 %

दिनांक/Date: 18-02-2025
स्थान/Place: ISRO HQ, Bengaluru
UID- 039e5fd1f2892f598eb7686694b2e27d .This Certificate can be validated using URL- https://certificate.iirs.gov.in

समन्वयक/ Coordinator
इसरो स्टार्ट नोडल सेंटर/ ISRO START Nodal Center

निदेशक/ Director
एसपीओ, इसरो मुख्यालय/ SPO, ISRO HQ Bengaluru

निदेशक/ Director
आई.आई.आर.एस, देहरादून/ IIRS, Dehradun

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Certifications

Certificate of Completion – iHUB DivyaSampark, IIT Roorkee

Our students Manish Kumar, Ananya Agarwal, and Anshika Agarwal successfully completed a certificate course on Fundamentals of Python, Machine Learning, Data Science, and Web Development. The program was conducted by iHUB DivyaSampark, Indian Institute of Technology Roorkee, at MIET, Meerut. This collective achievement highlights their commitment to gaining hands-on expertise in cutting-edge technologies and preparing for future industry challenges.

iHUB DivyaSampark

A joint initiative of Department of Science & Technology
Government of India & IIT Roorkee

CERTIFICATE OF COMPLETION

This is to certify that

ANSHIKA AGARWAL

has successfully completed certificate course in

Fundamentals of Python, Machine learning, Data science & Web development

Conducted by the **iHUB Divya Sampark, Indian Institute of Technology, Roorkee**

at MIET, MEERUT from

Date of Issue 11-9-24
OTIHB0923/106

chief Executive Officer
iHUB, DivyaSampark

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iHUB DivyaSampark

A joint initiative of Department of Science & Technology
Government of India & IIT Roorkee

CERTIFICATE OF COMPLETION

This is to certify that

Manish Kumar

has successfully completed certificate course in

Fundamentals of Python for Machine Learning, Data Science & Web Development

Conducted by the iHUB Divya Sampark, Indian Institute of Technology, Roorkee

at MIET, MEERUT from 06/09/24 to 11/09/24

Date of issue 11/09/24

chief Executive Officer
iHUB, DivyaSampark

iHUB DivyaSampark

A joint initiative of Department of Science & Technology
Government of India & IIT Roorkee

CERTIFICATE OF COMPLETION

This is to certify that

Ananya Agarwal

has successfully completed certificate course in

Fundamentals of Python for Machine Learning, Data Science & Web Development

Conducted by the iHUB Divya Sampark, Indian Institute of Technology, Roorkee

at MIET, MEERUT from 06/09/24 to 11/09/24

Date of issue 11/09/24
DTIHB0923/056

chief Executive Officer
iHUB, DivyaSampark

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AWS Ideathon Winner

Our student, Tejus Gupta, actively participated in the Ideathon by AWS Gen AI organized by CSI-MIET on 10–11 July 2024 at MIET, Meerut. The event provided a platform to explore innovative solutions using AWS technologies. His engagement and commitment during the competition were highly commendable, reflecting the department's focus on nurturing creativity and industry-oriented skills.

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Certifications

MongoDB Certifications

MongoDB is a NoSQL, document oriented database. It stores data in flexible, JSON like documents rather than rigid tables. For IoT (Internet of Things), you often have streams of data from sensors/devices, varying schema (data formats may evolve), large volume, sometimes semi structured or unstructured data. MongoDB is well suited for this because of its flexibility, scalability, and support for distributed systems (replication, sharding) etc.

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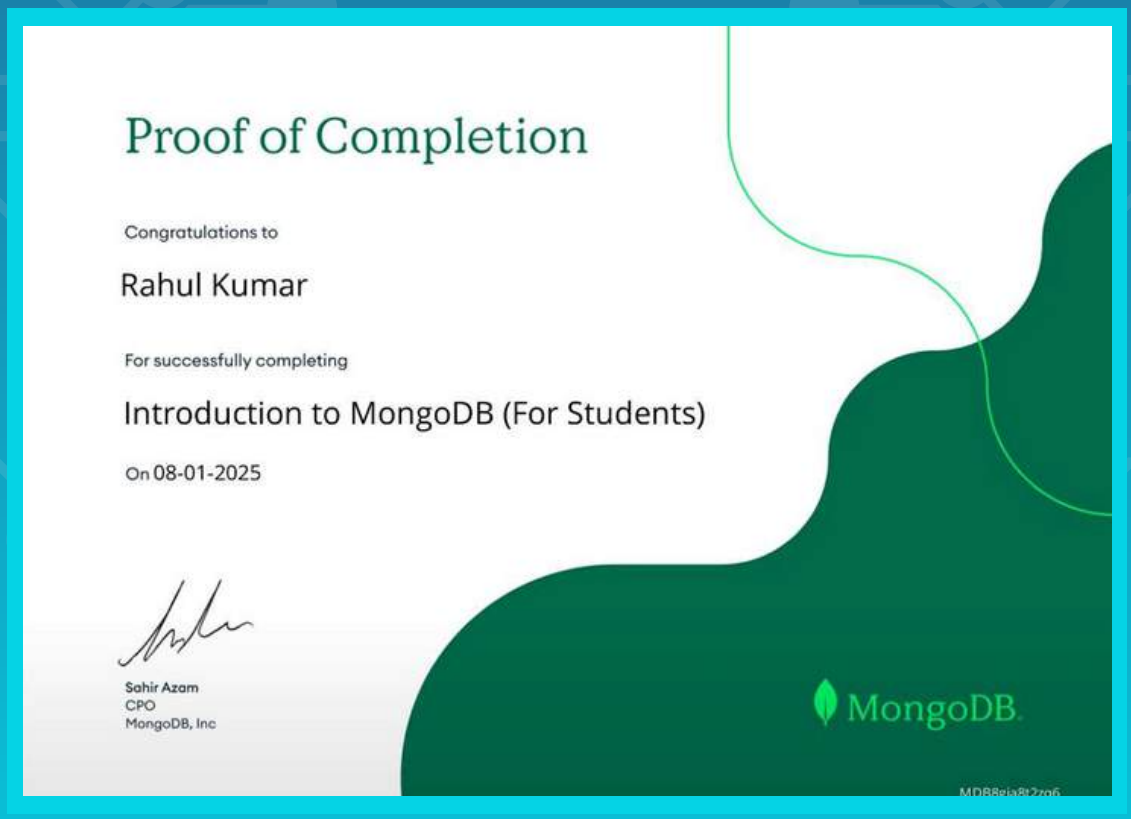
Certifications



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Certifications

Cybersecurity and Networking Certifications

Our student, Sneha Sharma, has successfully completed multiple prestigious certifications from the Cisco Networking Academy. She earned credentials in Introduction to Cybersecurity and the Junior Cybersecurity Analyst Career Path, gaining expertise in identifying cyber threats, implementing security controls, and protecting organizational networks. Additionally, she completed CCNA: Introduction to Networks, strengthening her foundation in computer networks. These achievements highlight her strong dedication to building skills in network security and cyber defense, preparing her for industry-ready roles in the field of cybersecurity.

Networking Academy

Certificate of Course Completion

sneha sharma

has successfully achieved student level credential for completing the Introduction to Cybersecurity course.

The student was able to proficiently:

- *Explain the basics of being safe online, including what cybersecurity is and its potential impact.*
- *Explain the most common cyber threats, attacks, and vulnerabilities.*
- *Explain how to protect oneself while online.*
- *Explain how organizations can protect their operations against these attacks.*
- *Access a variety of information and resources to explore the different career options in cybersecurity.*

Verified

Scan to Verify

Lynn Bloomer

Lynn Bloomer
Director, Cisco Networking Academy

Issued on: May 06, 2025

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Certifications

Networking Academy

This certificate is awarded to

sneha sharma

for successfully completing

CCNA: Introduction to Networks

offered by NIIT Foundation
through the Cisco Networking Academy program.

Raghvendra Pandey
Instructor
NIIT Foundation

04 Aug 2025
Completion Date

Networking Academy

Certificate of Course Completion

sneha sharma

has successfully achieved student level credential for completing the Junior Cybersecurity Analyst Career Path.

The student was able to proficiently:

- *Recommend cybersecurity controls to enhance network and information security.*
- *Mitigate network security threats.*
- *Mitigate systems security threats.*
- *Evaluate organizational security posture using vulnerability assessment and risk assessment tools.*
- *Recommend incident management activities to be included in an incident response plan.*
- *Effectively serve as a network security employee.*

Verified

Scan to Verify

Issued on: Jun 26, 2025

Lynn Bloomer
Director, Cisco Networking Academy

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Certifications

Student Participation in College Hackathons & Events

Our students actively took part in various hackathons, coding challenges, and technical events organized by different college communities throughout the year. These platforms not only allowed them to showcase their creativity and problem-solving skills but also helped them collaborate, learn, and grow with peers from diverse domains. Their enthusiastic participation reflects the department's culture of encouraging innovation, teamwork, and continuous learning beyond the classroom.

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Certifications

Certificate of Appreciation

This certificate is proudly awarded to

Tejus Gupta

have exhibited exceptional dedication and teamwork in organizing th successful **NUMERAL NUMEX** event on **20 Dec 2023** organized by **CSWD**. Your invaluable contributions are truly appreciated.

PROF.(DR.)MUKESH RAWAT
HOD OF CSE

PROF.(DR.) SWATI SHARMA
HOD OF IT

PROF.(DR.) BRIJESH KUMAR
DIRECTOR -MIET

CERTIFICATE
OF COMPLETION

THIS IS TO CERTIFY THAT

Tejus Gupta.

has successfully participated in the Drone Workshop organized by Skyward Dynamics MIET, Meerut on 10 June,2023

Dr. Ramesh Kumar
Faculty Coordinator

Dr. Bhavna Malik
Dean Academics

Dr. Brijesh Singh
Director MIET

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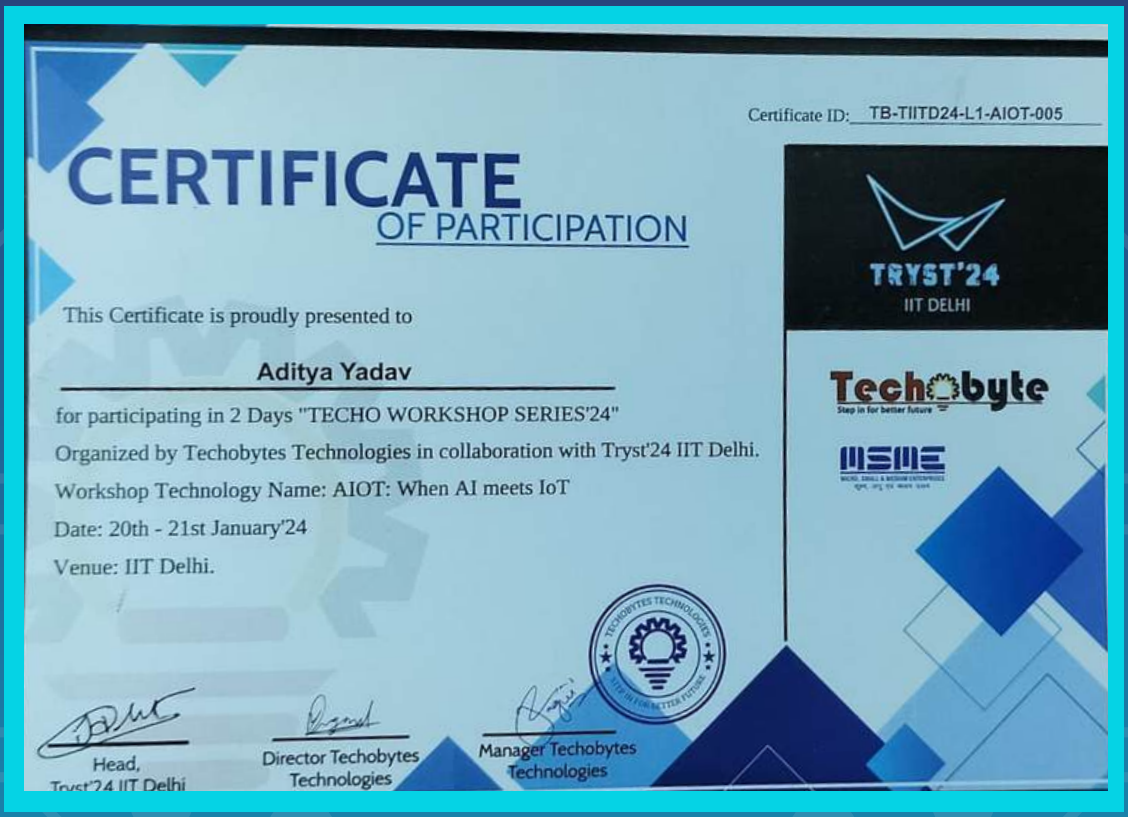
Certifications



Certificate ID: TB-TIITD24-L1-AIOT-005

CERTIFICATE
OF PARTICIPATION

TRYST'24
IIT DELHI

This Certificate is proudly presented to

Aditya Yadav

for participating in 2 Days "TECHO WORKSHOP SERIES'24"
Organized by Techobytes Technologies in collaboration with Tryst'24 IIT Delhi.
Workshop Technology Name: AIOT: When AI meets IoT
Date: 20th - 21st January'24
Venue: IIT Delhi.

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MSME

Head,
Tryst'24 IIT Delhi

Director Techobytes
Technologies

Manager Techobytes
Technologies

Certificate of Appreciation

This certificate is proudly awarded to

Dhruv Gupta

have exhibited exceptional dedication and teamwork in organizing th
successful **NUMERAL NUMEX** event on **20 Dec 2023** organized by **CSWD**.
Your invaluable contributions are truly appreciated.

PROF.(DR.)MUKESH RAWAT
HOD OF CSE

PROF.(DR.) SWATI SHARMA
HOD OF IT

PROF.(DR.) BRIJESH KUMAR
DIRECTOR - MIET

MIET

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Awards

Innovation Recognized: Our Journey with the Anti-Drone Jammer

We are proud to share that our project, the Portable Anti-Drone Jammer, has been honored with the Best Startup Award in Tech Innovation at Dr. A.P.J. Abdul Kalam Technical University, Lucknow. The award was presented by Her Excellency Anandiben Mafatbhai Patel, Hon'ble Governor of Uttar Pradesh, and Group Captain Shubhanshu Shukla, Test Pilot with the Indian Air Force and Gaganyatri with ISRO.

Our team, consisting of Manohar Kushwaha and Deekshant Kumar, worked passionately on developing this technology with the vision of strengthening national security. The jammer is designed to disrupt unauthorized drone communication, ensuring protection against surveillance and potential threats. What began as a research-driven college project soon turned into a deployable solution, successfully demonstrating its capability during military trials.

Receiving this recognition is not just an award for us—it is a milestone that reflects the power of innovation, teamwork, and perseverance. It also highlights the role of student innovators in contributing to critical defense technologies for the nation.

We are grateful to our mentors, faculty members, and AKTU for providing us the platform to showcase our work. This achievement has motivated us to continue working on cutting-edge solutions in the field of electronics, IoT, and defense technology.

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Awards

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Awards

Three MIET Startups to be Honoured at AKTU Convocation

MIET Incubation Forum achieves the rare feat of consecutive recognition for the third year

Meerut : Dr. A.P.J. Abdul Kalam Technical University (AKTU), Lucknow, will witness a proud moment for Meerut as three startups from MIET (Meerut Institute of Engineering and Technology) are set to receive prestigious awards at its upcoming convocation. Out of the seven categories of startup awards being presented this year, three have been bagged by MIET. The awards will be conferred by the Hon'ble Governor. This marks the third consecutive year that startups from the MIET Incubation Forum have secured recognition at the convocation. Kavach 1.0 – Shield Against Enemy Drones Developed by Dikshant Kumar (CMIT) and Manohar Kushwaha (CSE-IoT), Kavach 1.0 is an advanced anti-drone system capable of jamming hostile drone signals, forcing them either to return to their source or land safely. With features like multi-band jamming, directional and omnidirectional antennas, and long-range coverage, Kavach 1.0 has been chosen for the Technology Innovation Award.Life Vision – A Ray of Hope for the Visually ImpairedHarsh Chauhan and Sarthak Sisodia have designed Life Vision, a pocket-sized device resembling a torch that assists the visually impaired in navigating obstacles. Equipped with LiDAR sensors and cameras, the device alerts users through vibrations whenever an obstruction is detected. With a 100-day battery life and affordable pricing, Life Vision will be felicitated with the Accessibility Startup Award. Raksha Kavach – Protecting Workers from Toxic GasesFounded by Mohit and co-founder Vansh Tiwari, Pulsewave Innovations Pvt. Ltd. has developed 'Raksha Kavach', a portable device that safeguards workers in sewers, septic tanks, and industrial sites from hazardous gases such as hydrogen sulfide, methane, carbon monoxide, and oxygen imbalance. The device provides real-time alerts through buzzer, vibration, and a digital display. It has already received a ₹4 lakh grant from the Ministry of Education and AICTE, and was a winner at the Smart India Hackathon. This year, it will be honoured with the Sustainability Champion Award.Together, these three innovations underscore MIET's growing reputation as a hub of technological excellence and socially impactful entrepreneurship — not just in Uttar Pradesh, but across India.

हिन्दुस्तान www.livehindustan.com **अपना मेरठ** मेरठ, मंगलवार, 9 सितंबर 2025 07

एकेटीयू

मन के कोने में उपजे विचार को मूर्त रूप देकर हकीकत में बदल भविष्य में बदलाव का वाहक बनने में सक्षम स्टार्टअप में मेरठ ने कमाल कर दिया है। आज लखनऊ में हो रहे एकेटीयू के दीक्षांत समारोह में प्रदेशभर के छह स्टार्टअप विभिन्न श्रेणियों में पुरस्कृत होंगे। गौरव की बात यह कि इन छह में से तीन यानी 50 फीसदी स्टार्टअप मेरठ से एमआईईटी के हैं।

प्रदेशभर में चमके मेरठ के मेधावियों के स्टार्टअप, मिलेगा सम्मान

50 फीसदी स्टार्टअप मेरठ के एमआईईटी कॉलेज के हैं।

■ आज लखनऊ में एकेटीयू के दीक्षांत समारोह का होगा आयोजन

खतरनाक गैस पर बजने लगेगा अलार्म

दृष्टिबाधित दिव्यांगों का सहारा बनेगा लाइफ विजन

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Awards

Innovation Triumph: IoT Department Shines at NIT Delhi Hackathon

We are thrilled to announce that our Department of Internet of Things (IoT) team has achieved a remarkable milestone by securing the Winner's Award at the National Hackathon hosted by NIT Delhi. The recognition was made even more special as the award was presented by the Hon'ble Minister of Education, Government of India.

Our team, comprising Tejus Gupta, Abhishek Panwar and Nirdesh Sharma, showcased an innovative solution that leveraged IoT and emerging technologies to tackle real-world challenges. With creativity, technical expertise, and sheer determination, the students not only impressed the jury but also stood out among some of the brightest young minds from across the country.

What started as a collaborative idea within our department grew into a full-fledged prototype during the hackathon, demonstrating the power of applied knowledge, teamwork, and problem-solving. This achievement is a testament to the potential of student innovators in shaping the future of technology.

We extend our heartfelt gratitude to our mentors, faculty members, and NIT Delhi for providing the platform to innovate and excel. Winning this award inspires us to continue pushing boundaries in IoT, AI, and smart systems, and to create impactful solutions that address real-world challenges.

This is not just a win for the team—it is a proud moment for the entire department and a reflection of the innovation-driven spirit of our university.

Awards

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Student Articles

Students Name	Article Title
Ishika Prajapati	IOT in Smart Agriculture
Harshita Sharma	Role of Iot in India's Safety and Environment
Gautam Sharma	The Rise of Industrial IOT (IIOT)
Prashit Chauhan	Revolutionizing healthcare
Vansh Yadav	IoT in Healthcare
Ashish Rawat	Breaking Barriers: IoT Reaches the Unreachable with Satellite Power
Ansh Yadav	Connecting Our World, Shaping Our Future
Anshika Agarwal	The Future at Our Fingertips
Aditya Yadav	Connected Realities: How IoT Is Rewiring Our World
Dhruv Gupta	Empowering the Future
Nirdesh Sharma	Saving Lives Through Smart Technology
Tejus Gupta	The Internet of Things and the Rise of Smart Cities

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IoT in Smart Agriculture

IoT technology is revolutionizing agriculture by enabling farmers to use data-driven approaches for better productivity and sustainability. IoT devices such as soil moisture sensors, temperature sensors, and weather stations collect real-time data from fields. This information helps farmers understand the exact needs of crops, allowing precise control over irrigation, fertilization, and pest control.

Smart irrigation systems powered by IoT adjust water usage based on soil moisture levels, reducing water waste and increasing crop yield. Drones equipped with cameras and sensors monitor crop health and identify problem areas quickly. Farmers receive alerts about pest infestations or nutrient deficiencies, enabling timely intervention.

IoT also supports livestock monitoring by tracking animal health, behavior, and location, which helps in improving animal welfare and reducing losses due to diseases. Additionally, automated machinery and robots help in planting, harvesting, and other farm activities with increased efficiency.

The integration of IoT in agriculture not only boosts productivity but also promotes sustainable practices by minimizing resource consumption and environmental impact. Farmers can monitor and control farm processes remotely through smartphones, saving time and costs. With the global population rising, loT-driven smart agriculture is crucial for ensuring food security and meeting future demands efficiently.

ISHIKA PRAJAPATI
CSE-IOT, B. Tech. (2nd Year)

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Role of IoT in India's Safety and Environment

In a nation as diverse and dynamic as India, public and environmental safety are paramount. The Internet of Things (IoT) is emerging powerfully offering innovative solutions to complex challenges, from natural disasters to urban pollution. Imagine a smart flood monitoring system, along the Ganga, where IoT sensors continuously track water levels, automatically alerting villages downstream and disaster response teams if danger looms. This real-time data allows for timely evacuations and resource deployment, potentially saving countless lives and livelihoods. Beyond disaster management, IoT is crucial for environmental stewardship. In bustling Indian cities, networks of air quality sensors can provide precise, localized data on pollutants. This empowers municipal corporations to identify pollution hotspots, implement targeted interventions, and inform citizens about current conditions. Furthermore, intelligent waste management systems, equipped with IoT sensors, can optimize collection routes and signal full bins, making our cities cleaner and reducing environmental impact. By leveraging IoT, India can build more resilient communities, protect its precious natural resources, and ensure a safer, healthier future for all its citizens. This integration of technology is not just about convenience; it is about creating a future where our cities are more responsive and our environment is more protected. It's about empowering communities with the data they need to anticipate threats and act decisively. As we connect more of our infrastructure, we are not just building smart cities—we are building a smarter nation, capable of facing the challenges of tomorrow with unprecedented confidence. The Internet of Things is not just a technological revolution; it is the blueprint for a safer, more sustainable India.

HARSHITA SHARMA
CSE-IOT, B. Tech. (2nd Year)

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THE RISE OF INDUSTRIAL IoT (IIoT)

Factories are getting smarter, thanks to something called the Industrial Internet of Things (IIOT).It's all about using connected machines, sensors , and data to make manufacturing faster, safer, and more efficient.

IIOT also helps track tools, parts, and products in real time. That means factories always always know where things are, which cuts down on waste and delays. It even helps spot quality issues early using smart cameras and sensors.

In the past, machines were fixed only when they broke down. Now, with IIOT, sensors can detect problems early and warn workers before something goes wrong. This kind of "predictive maintenance" helps avoid expensive breakdowns and keeps everything running smoothly.

IIOT helps factories save energy by tracking how much electricity machines use and finding ways to reduce it-good for both the environment and costs. It also improves the supply the supply chain by sharing real-times, helping avoid delays and stock issues. While there are some challenges, like upgrading old equipment and ensuring cyber security, many companies are still making the move to smarter systems. In the end, IIOT is transforming how factories work-making them more efficient, intelligent, and better prepared for the future of manufacturing. It's a big step forward for the industry.

GAUTAM SHARMA
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Revolutionizing healthcare

IOT, or the INTERNET OF THINGS, refers to the network of physical devices that are connected to the internet and can collect, share, and act on data without direct human intervention.

The integration of the INTERNET OF THINGS (IOT) in healthcare is the transformative era of smart patient monitoring, redefining the paradigms of medical care delivery. Through the interconnected sensors, wearable devices, and cloud based analytics, IOT enabled systems are facilitating real-time health tracking, predictive diagnostics and remote patient management with unprecedented precision.

Smart healthcare monitoring systems leverage a network of devices that continuously collect vital data such as heart rate, blood pressure, glucose level and the oxygen saturation. This data is transmitted securely to healthcare providers, Such systems like data-driven clinical decisions.
Those systems are particularly impactful in managing chronic conditions like diabetes, cardio-diseases and respiratory disorders where consistent monitoring is critical.

However, while the promise of IOT in healthcare is immense, elderly individuals and those in remote areas benefit immensely as iot mitigates the need for frequent hospital visits, reducing both cost and logistic barriers apart from that some challenges remain but will be solved shortly.

In essence, smart healthcare monitoring systems powered by IOT offering a future where healthcare is more proactive, personalized and accessible than ever before.

PRASHIT CHAUHAN
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IoT in Healthcare

The Internet of Things (IoT) is transforming the healthcare sector by connecting medical devices, sensors, and applications to improve patient care and hospital management. IoT in healthcare enables real-time monitoring, remote treatment, and data-driven decision-making, making healthcare more efficient and accessible.

One of the major applications is remote patient monitoring. Wearable devices such as smartwatches and health trackers can measure heart rate, blood pressure, oxygen levels, and glucose levels. The data is sent to doctors instantly, allowing them to monitor patients without requiring frequent hospital visits. This is especially beneficial for elderly patients and those with chronic diseases.

IoT also supports smart hospital management. Connected devices help track medical equipment, monitor drug inventory, and ensure better patient safety. Automated alerts can inform healthcare providers about emergencies, reducing response time and saving lives.

The benefits of IoT in healthcare include improved diagnosis, reduced hospital costs, early disease detection, and enhanced patient experience. However, challenges like data security, privacy issues, and high implementation costs still need to be addressed.

In conclusion, IoT in healthcare is a step towards smart medicine, offering more personalized, efficient, and proactive healthcare services that improve the overall quality of life.

VANSH YADAV
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Breaking Barriers: IoT Reaches the Unreachable with Satellite Power

Breaking barriers in global connectivity, satellite-powered IoT stands at the forefront of technological innovation, enabling devices to communicate and share data from even the most remote or inhospitable corners of the planet. Unlike traditional networks that depend on physical infrastructure and are limited to urban or populated regions, satellite IoT uses constellations of orbiting satellites to reach places where cellular or fiber networks cannot, such as oceans, deserts, and mountain ranges. This breakthrough has revolutionized sectors like agriculture, transport, energy, and disaster management by providing critical updates, operational insights, and automation where connectivity was once impossible.

Driven by advances in low-cost, low-power satellite modules and scalable technologies, satellite IoT delivers reliable and secure data transfer without the need for extensive ground infrastructure. As demand for instant information grows across industries, devices equipped with satellite IoT can operate for years on remote power sources and communicate vital data directly to central hubs. This leap in connectivity not only boosts efficiency and decision-making but also bridges the longstanding digital divide, ensuring that the benefits of IoT extend far beyond city limits, truly making global coverage a practical reality.

ASHISH RAWAT
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Connecting Our World, Shaping Our Future

Fundamentally, the Internet of Things is a network of physical objects, from common household appliances to industrial machinery, that use sensors, software, and connectivity to gather and share data. These gadgets "talk" to one another, facilitating automation, efficiency, and better decision-making without the need for continual human involvement. The power of the Internet of Things can be seen in a smart city system that optimises traffic flow, a refrigerator that alerts you when your groceries are about to run low, or a smartwatch that tracks your health in real time.

IoT is propelling innovation in a variety of industries, not just home convenience:
Healthcare: Vital sign monitoring, health risk prediction, and even emergency doctor alerts are all made possible by wearable technology.

- Agriculture: By monitoring crop health, water use, and soil conditions, smart sensors assist farmers in maximising yield while preserving resources.
- Manufacturing: By anticipating malfunctions before they happen, connected machinery lowers downtime and increases output.
- Smart Cities: IoT is enhancing the sustainability of urban living through connected waste management and intelligent lighting systems.

The Future of IoT
Over 25 billion devices will be connected globally by 2030, according to experts. IoT will get faster, smarter, and more integrated into daily life as 5G networks, AI, and edge computing proliferate. IoT is the cornerstone of a connected future, from fully automated smart homes to personalised healthcare.

ANSH YADAV
CSE-IOT, B. Tech. (3rd Year)

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The Future at Our Fingertips

The Internet of Things (IoT) is revolutionizing the way we live, work, and interact with the world. It refers to the network of physical devices—ranging from smartphones and home appliances to cars and industrial machines—connected to the internet, enabling them to collect and share data.

In simple terms, IoT makes everyday objects "smart." For instance, a smartwatch tracks health data, a smart refrigerator manages groceries, and smart cities use sensors to reduce traffic and pollution. As Kevin Ashton, who coined the term IoT, once said, ***"The Internet of Things has the potential to change the world, just as the Internet did. Maybe even more so."***

The true power of IoT lies in its ability to create efficiency and convenience. It improves healthcare with remote monitoring, boosts agriculture with smart irrigation, and enhances safety with connected vehicles. The global push toward automation and artificial intelligence is only accelerating its growth.

However, as we embrace IoT, concerns like data privacy, cybersecurity, and over-dependence on technology cannot be ignored. Safeguards and ethical use are as essential as innovation itself.

In conclusion, IoT is more than technology—it is a revolution. And yes, as the saying goes, ***"The future is at our fingertips."*** With IoT, that future is smarter, faster, and limitless. The only question is: are we ready to grab it?

ANSHIKA AGARWAL
CSE-IOT, B. Tech. (3rd Year)

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Connected Realities: How IoT Is Rewiring Our World

The Internet of Things (IoT) is revolutionizing the way we interact with technology by enabling everyday devices to communicate, collect, and exchange data. This article explores the core concept of IoT, its growing impact across sectors like education, healthcare, agriculture, and transportation, and its integration into campus life through smart systems. It also highlights the creative opportunities IoT offers for designers and developers, emphasizing the importance of intuitive interfaces and ethical design. As IoT continues to evolve, it presents a dynamic space for innovation, blending data-driven intelligence with human-centred experiences.

The Internet of Things (IoT) has evolved from a futuristic buzzword into a transformative force that seamlessly connects our homes, cities, and industries. By enabling physical devices— ranging from wearable health monitors to industrial machinery—to communicate and exchange data, IoT is reshaping how we live, learn, and innovate. In educational spaces, IoT is quietly revolutionizing campus infrastructure: smart classrooms optimize comfort through automated lighting and climate control, RFID systems streamline attendance, energy sensors promote sustainability, and IoT-enabled safety systems enhance security. Beyond academia, real-world applications span healthcare (instant vitals monitoring), agriculture (automated irrigation via soil sensors), retail (real-time inventory tracking), and transportation (GPS-enabled route optimization). Today's IoT landscape is rapidly advancing through AIoT, which merges artificial intelligence with IoT for predictive analytics and smarter automation; edge computing, which brings faster data processing closer to the source; and ethical design, which emphasizes privacy, empathy, and transparency as devices become more personal and pervasive.

ADITYA YADAV
CSE-IOT, B. Tech. (3rd Year)

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Empowering the Future

The Internet of Things (IoT) is no longer a futuristic idea; it is shaping our daily life and industries. In 2025, IoT is helping create a smarter, connected world.

AIoT: Smarter Devices Combining AI with IoT, called AIoT, makes devices intelligent. They can process data locally through edge computing, giving real-time results without always using the cloud. This is changing healthcare, manufacturing, and self-driving vehicles.

Smart Cities: Better Urban Living IoT is the base for smart cities. AI-based traffic systems reduce congestion, and intelligent streetlights save energy. IoT makes cities cleaner, safer, and more efficient.

Industrial IoT: Improving Industries In industries, IoT sensors monitor machines continuously. This helps prevent breakdowns, reduce downtime, and improve efficiency.

Security: Keeping Devices Safe As IoT devices grow, security is vital. Encryption, multi-factor authentication, and AI-based monitoring are helping keep connected devices secure.

Conclusion: A Connected Tomorrow IoT is changing homes, cities, and industries. By adopting these smart solutions, we prepare for a world where everything is connected, intelligent, and efficient.

DHRUV GUPTA
CSE-IOT, B. Tech. (4th Year)

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Saving Lives Through Smart Technology

The Internet of Things (IoT) is bringing a new era in healthcare. With connected devices and smart sensors, doctors and patients are experiencing faster, safer, and more reliable treatment. In 2025, IoT is not just a tool; it is becoming a lifeline.

Remote Health Monitoring: Smart wearables and devices like heart rate monitors, glucose trackers, and oxygen sensors are helping doctors keep track of patients in real time. This reduces the need for frequent hospital visits and ensures that patients get help when they need it most.

Smart Hospitals: IoT is making hospitals more efficient. Smart beds can detect patient movement, connected devices track medicine usage, and real-time data helps in better decision-making. This saves time for doctors and improves patient care.

Emergency Response: IoT-enabled ambulances can send patient details to hospitals before arrival, saving precious time during emergencies. Security and Privacy With so much personal data being shared, IoT also focuses on strong data protection and secure systems.

Conclusion: A Healthier Tomorrow IoT is changing the way we see healthcare. By connecting patients, doctors, and hospitals, it is building a future where healthcare is faster, smarter, and more human-friendly.

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Saving Lives Through Smart Technology

The Internet of Things (IoT) is more than just smartwatches and home assistants—it's transforming entire cities into smart cities. By using connected sensors, cameras, and devices, cities can collect and analyze data in real time to improve how they function.

Imagine traffic lights that adapt to congestion, streetlights that save energy by dimming when streets are empty, or buses that always arrive on time because they're synced with live traffic data. These aren't futuristic dreams; they're real solutions already shaping urban life.

Real-World Examples

- Barcelona uses IoT for smart parking, reducing emissions.
- Singapore monitors water levels and energy use to stay resilient.
- London tracks air quality, helping fight pollution.

Benefits for People

For citizens, IoT means shorter commutes, safer streets, and quicker emergency responses. Healthcare systems can even receive automatic alerts during accidents, saving precious time.

Challenges Ahead

However, IoT brings challenges like data privacy, cybersecurity, and the high cost of infrastructure. To succeed, cities must ensure technology is secure, ethical, and accessible.

With 5G on the rise, IoT's potential will only grow—enabling autonomous vehicles, smart energy grids, and more. The smart city isn't just tomorrow's vision—it's today's reality in the making.

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IOT Wizard


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IOT


WIZARDS

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It is with immense pride and joy that we present to you the first edition of Synapse, the annual yearbook of the Department of Computer Science & Engineering – IoT at MIET College.

Much like the synapses in our brain that spark connections and enable thought, this magazine represents the countless bonds we have built — between students, faculty, technology, and ideas. It is not just a record of events but a celebration of creativity, innovation, and the collective spirit of our department.

Inside these pages, you will discover stories of growth, technical achievements, projects that push boundaries, and memories that will stay with us for years to come. From academic milestones to cultural moments, Synapse is a reflection of our journey together.

As the field of IoT continues to shape the future of technology, we believe that our students and faculty stand ready to contribute meaningfully to a smarter, more connected world.

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"Like synapses that spark intelligence,
together we create memories
that power the future."

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