



**Department of Computer Science and Engineering**



# **TECH SPACE**

**Volume-18**

**December 2023**

**Meerut Institute of Engineering and Technology  
N.H. 58, Delhi-Roorkee Highway, Baghat Bypass  
Road Crossing, Meerut, Uttar Pradesh 250005**



## **VISION**

To be an excellent department that imparts value-based quality education, Research and innovative technology.

## **MISSION**

M1: To fulfill the requirement of skilled human resources with focus on quality education.

M2: To create globally competent and socially responsible technocrats by providing value and need based training.

M3: To improve Industry-Institution Interaction and encourage the research activities.

## **PROGRAM EDUCATION OBJECTIVE**

PEO-1: Students will have the successful careers in the field of computer science and allied sectors as an innovative engineer.

PEO-2: Students will advance their careers through professional activities Certification and higher studies.

PEO-3: Students will be able to exhibits high level of professional skills and commitment to life-long learning.

PEO-4: Students will be ready to serve society in any manner and become a responsible and aware citizen.

PEO-5: Establishing students in a leadership role in any field.



## PROGRAM OUTCOMES

### Engineering Graduates will be able to:

1. **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **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.
3. **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.
4. **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.
5. **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.
6. **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.
7. **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.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **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.
11. **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.
12. **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.



### MESSAGE FROM CHAIRMAN



**Shri Vishnu Sharan**

It is true that the strength of CSE lies in his grit & determination, a forceful support by his excellent subordinates and the overall study orientation by multi development policies that has distinctly made MIET a name brightening up in progression each year.

**(Shri Vishnu Sharan)**

### MESSAGE FROM DIRECTOR



**Prof. Brijesh Singh**

I congratulate CSE department on the 16th volume of their magazine Tech Space. Our Students are doing good in placements, university merit list, curricular and co-curricular activities. We are working on nurturing the students in every aspect.

I wish success to all students and faculty members in all future endeavors.

**(Prof. Brijesh Singh)**

### MESSAGE FROM HEAD



**Prof. Mukesh Rawat**

The department considers the committed and dedicated staff as its core strength in providing value education with professional standards. Our faculties with experiences in both teaching and industry constantly aspire to achieve academic excellence with emphasis on ingraining inventive thinking and leadership skills in our students. The department is regularly organising Industry Oriented Programs (IoPs) on Amazon Web Services (AWS), Salesforce, Google Cloud, Python for Machine Learning & Data Science, and JAVA etc to enhance the skills and make the students Industry ready.

**(Prof. Mukesh Rawat )**



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## DEPARTMENT PUBLICATIONS

**1. A Book Chapter Published by Mr. Vijay Kumar Sharma (Assistant Professor), Muskan Gupta(Student), Prakarti Singh (Student), Department of Computer Science & Engineering, MIET, Meerut**

Mr. Vijay Kumar Sharma (Assistant Professor), Muskan Gupta (Student), Prakarti Singh (Student), Published a Book Chapter, Department of Computer Science & Engineering, has published a book Chapter on "Loan eligibility prediction model using machine learning algorithms", in a book titled "Artificial Intelligence, Blockchain, Computing and Security Volume 2 ", (2023) 18-24(7) in Taylor & Francis Group eISBN-9781032684994

[Loan eligibility prediction model using machine learning algorithms | \(taylorfrancis.com\)](https://www.taylorfrancis.com)

**2. A Book Chapter Published by Dr. Mukesh Rawat (Professor & head), Vijay Kumar Sharma (Assistant Professor), Department of Computer Science & Engineering, MIET, Meerut**

Dr. Mukesh Rawat (Professor & head), Vijay Kumar Sharma (Assistant Professor), Department of Computer Science & Engineering, has published a book Chapter on "Adaptive Particle Swarm Optimization for Energy Minimization in Cloud: A Success History Based Approach" in a book titled "Towards the Integration of IoT, Cloud and Big Data ", (2023) 115-130 (6) in Springer Link Online ISBN- 978-981-99-6034-7.

[Adaptive Particle Swarm Optimization for Energy Minimization in Cloud: A Success History Based Approach | SpringerLink](https://www.springerlink.com)

**3. A Conference Paper Published by Mr. Ankush Gupta (Assistant Professor), Uttkarsh Rastogi (Student), Tanu (Student), Vinayak Singhal (Student), Department of Computer Science & Engineering, MIET, Meerut**

Mr. Ankush Gupta (Assistant Professor), Uttkarsh Rastogi (Student), Tanu (Student), Vinayak Singhal (Student), Department of Computer Science & Engineering, has published a Conference Paper on "Detection of Phishing Attack Using Machine Learning" in a Conference "International Conference on Advances in Data Science and Computing Technologies ", (2023) pp 441-449(9).

[Detection of Phishing Attack Using Machine Learning | SpringerLink](https://www.springerlink.com)



## DEPARTMENT PUBLICATIONS

### **4. A Research Paper Published by Dr. Waseem Ahmad (Associate Professor), Department of Computer Science & Engineering, MIET, Meerut**

Dr. Waseem Ahmad (Associate Professor), Department of Computer Science & Engineering, has published a research paper on "Automatic Diabetic Foot Ulcer Recognition Using Multi-Level Thermographic Image Data " in MDPI (Diagnostics) Journal Volume 13 issue 16.

[Diagnostics | Free Full-Text | Automatic Diabetic Foot Ulcer Recognition Using Multi-Level Thermographic Image Data \(mdpi.com\)](#)

### **5. A Research Paper Published by Dr. Waseem Ahmad (Associate Professor), Department of Computer Science & Engineering, MIET, Meerut**

Dr. Waseem Ahmad (Associate Professor), Department of Computer Science & Engineering, has published a research paper on "Optimizing Material Selection with Fermatean Fuzzy Hybrid Aggregation Operators" in MDPI (Axioms) Journal Volume 12 issue 10.

[Axioms | Free Full-Text | Optimizing Material Selection with Fermatean Fuzzy Hybrid Aggregation Operators \(mdpi.com\)](#)

### **6. A Research Paper Published by Dr. Mukesh Rawat (Professor), Madhur Agarwal (Student), Arpita Mittal (Student), Megha Tyagi (Student), Ashutosh Rana (Student), Department of Computer Science & Engineering, MIET, Meerut**

Dr. Mukesh Rawat (Professor), Madhur Agarwal (Student), Arpita Mittal (Student), Megha Tyagi (Student), Ashutosh Rana (Student), Department of Computer Science & Engineering, has published a Research Paper on "EMOTIONS ANALYSIS USING DEEP LEARNING " in a Journal "Stochastic Modelling and Computational Sciences", (December 2023) vol 3 no 2, pp 437-441(5).

[smc-v3-2-2023-21.pdf \(romanpub.com\)](#)



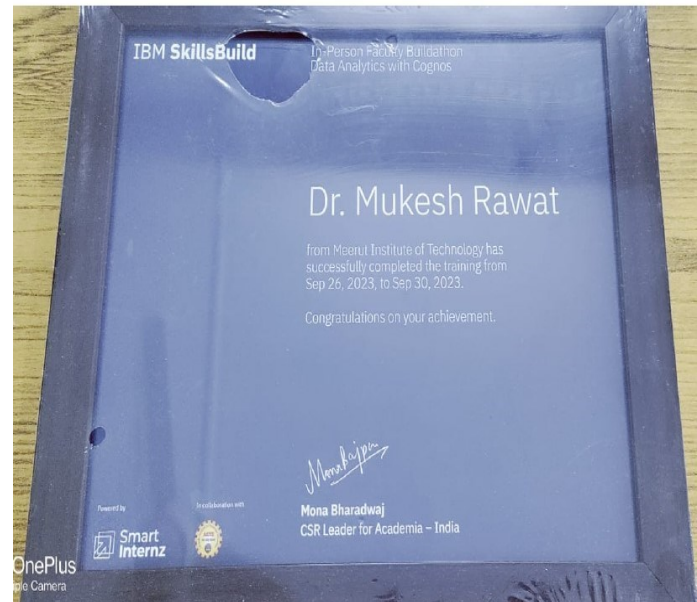


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## FACULTY DEVELOPMENT PROGRAM

Congratulation to Dr. Mukesh Rawat, Professor, Department of Computer Science & Engineering. He completed training program on IBM Data Analytics with Cognos from 26/09/23 - 30/09/23.



Congratulation to Mr. Amit Kumar, Assistant Professor, Department of Computer Science & Engineering. He completed training program on Microsite Creation on Infosys Springboard on 20 December 2023.

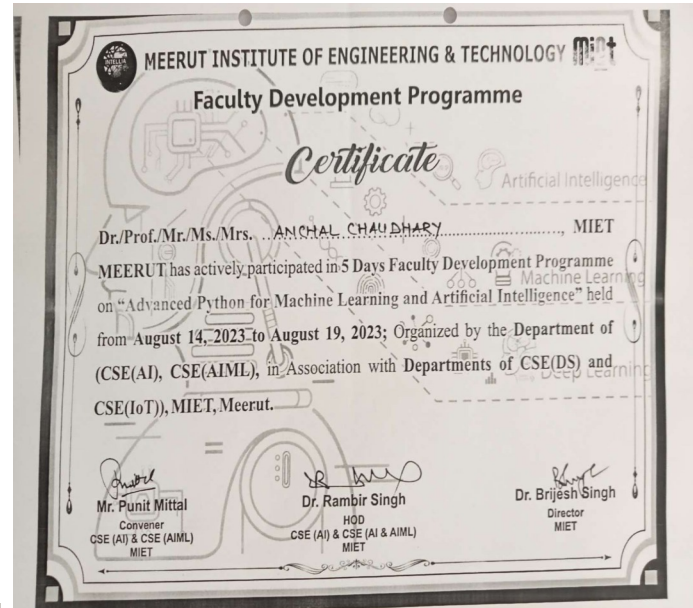


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## FACULTY DEVELOPMENT PROGRAM

Congratulation to Mrs. Anchal Chaudhary, Assistant Professor, Department of Computer Science & Engineering. She completed 5 days training program on Advanced Python for Machine Learning and Artificial Intelligence from 14/08/23 - 19/08/23.



Congratulation to Ms. Sonam Jahan, Assistant Professor, Department of Computer Science & Engineering. She completed training program on .NET Full Stack organized by Wipro Talentnext from 11/09/2023 -03/10/2023





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## DEPARTMENT ACHIEVEMENTS



Congratulation to Mr. Vijay Kumar Sharma, Assistant Professor, Department of Computer Science & Engineering for exceptional contribution as a Expert in Smart India Hackathon 2023.



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## DEPARTMENT ACHIEVEMENTS



<https://bharatintern.live>  
[bharatintern.info@gmail.com](mailto:bharatintern.info@gmail.com)  
Bharat Intern



## WELCOME LETTER

To:  
**Lakshya Sharma**

Date:  
**07 October, 2023**

Congratulations on securing a virtual internship opportunity at Bharat Intern as an "**App Developer Intern**" commencing on October 10, 2023. We are excited to welcome you aboard!

At Bharat Intern, we view internships as more than just jobs, they are invaluable educational experiences for students to acquire and refine skills. Throughout this internship, you will engage in hands-on learning, applying theoretical knowledge to real-world scenarios.

Prepare to explore a plethora of opportunities to showcase and enhance your abilities, gaining profound insights into the industry's inner workings.

By accepting this offer, you commit to executing assigned tasks diligently and ensuring excellence in all aspects of your work. We firmly believe that your time with us will be enriching, equipping you with the expertise to excel in your future endeavours. We are thrilled to have you as part of our team, ready to embark on a rewarding journey together.

Warms Regards,  
**Bharat Intern**



Congratulation to Mr. Lakshay Sharma, Student, Department of Computer Science & Engineering on securing a virtual internship opportunity at Bharat Intern as an "App Developer Intern".



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## DEPARTMENT ACHIEVEMENTS



Congratulation to Mr. Kanhaiya, Student, Department of Computer Science & Engineering for his participation in 3 days Training Programme on “Smart Manufacturing & Industry 4.0” conducted by IITD-AIA Foundation for smart manufacturing from 29th December 2023-31st December 2023.





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## DEPARTMENT ACHIEVEMENTS



DR. ABDUL KALAM TECHNICAL UNIVERSITY, UTTAR PRADESH, LUCKNOW

DR. ABDUL KALAM INTER - TECHNICAL UNIVERSITY SPORTS FEST : 2023-24

(STATE LEVEL)

Organized at

SR INSTITUTE OF MANAGEMENT & TECHNOLOGY, LUCKNOW

(State Level Centre)

### CERTIFICATE

This is to certify that Mr./Ms. Aayush Vats student of  
MIET, Meerut has participated in  
Basket ball Boys event & secured WINNER position at

*Dr. Abdul Kalam Inter - Technical University Sports Fest 2023-24 (State Level)*

*held on 01<sup>st</sup> - 02<sup>nd</sup> December, 2023.*

Er. Anurag Shrivastava  
Co-ordinator  
SRIMT Lucknow (State Centre)

Dr. D.P. Singh  
Director  
SRIMT Lucknow (State Centre)

Prof. O. P. Singh  
Dean Student Welfare  
Dr. APJ AKTU Lucknow

Prof. J. P. Pandey  
Vice-Chancellor  
Dr. APJ AKTU Lucknow

Congratulation to Mr. Aayush Vats, Student, Department of Computer Science & Engineering. He participated in basket ball boys event and secured winner position at Dr. Abdul Kalam Inter-Technical University Sports Fest 2023-24 (State Level) held on 01-02 December 2023.



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## DEPARTMENT ACHIEVEMENTS



**Dr. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, UTTAR PRADESH, LUCKNOW**

**DR. ABDUL KALAM INTER-TECHNICAL UNIVERSITY SPORTS FEST, 2023-24**

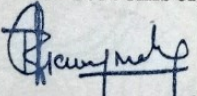
(ZONAL LEVEL)

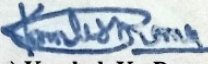
Organized at

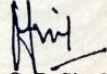
Bharat Institute of Technology, Meerut  
(Zonal Centre)

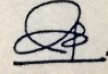
### CERTIFICATE

This is to certify that Mr./Ms. **VANDANA KUMARI** student of  
**MIET, MEERUT** has participated in  
**VOLLEY BALL** event and secured **1<sup>st</sup>** position at  
Dr. Abdul Kalam Inter-Technical University Sports Fest, 2023-24 (Zonal Level) held on  
3<sup>rd</sup> - 4<sup>th</sup> November, 2023.

  
Dr. Ravinder Kr. Mehra  
Coordinator  
BIT Meerut (Zonal Centre)

  
Prof. (Dr.) Kamlesh Kr. Rana  
Director  
BIT Meerut (Zonal Centre)

  
Prof. O. P. Singh  
Dean Student Welfare  
Dr. APJ AKTU Lucknow

  
Prof. J.P. Pandey  
Vice-Chancellor  
Dr. APJ AKTU Lucknow

Congratulation to Ms. Vandana Kumari, Student, Department of Computer Science & Engineering. She participated in Vlleey Ball event and secured 1st position at Dr. Abdul Kalam Inter-Technical University Sports Fest 2023-24 (Zonal Level) held on 03-04 November 2023.





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## DEPARTMENT ACHIEVEMENTS



Congratulation to Ms. Vandana Kumari, Student, Department of Computer Science & Engineering. She participated in Basket Ball event and secured 1st position at Dr. Abdul Kalam Inter-Technical University Sports Fest 2023-24 (Zonal Level) held on 03-04 November 2023.



## DEPARTMENT ACHIEVEMENTS

12/19/23, 6:20 PM

Certificate

In Partnership With

### CERTIFICATE OF COMPLETION

December 19, 2023

## Vatsal Sharma

### Salesforce Developer Virtual Internship

During the 8 Weeks period of Virtual Internship (**November-December 2023**), Vatsal Sharma has completed the following Salesforce Trailhead modules

- Salesforce Fundamentals
- Organizational Setup
- Relationship & Process Automation
- Types Of Flows & Security
- Apex, Testing & Debugging
- VS Code Setup & CLI Setup
- Lightning Web Components (LWC) & API

Developer Super Set

Certificate ID: SISFVIPAD2023-73716 | Verify this certificate @ [https://smartinternz.com/internships/salesforce\\_certificates/09edf2c698a3b122d8118387ce2642ff](https://smartinternz.com/internships/salesforce_certificates/09edf2c698a3b122d8118387ce2642ff)

  
**Shri Buddha Chandraseker**  
Chief Coordinating Officer(CCO),  
NEAT Cell-AICTE

  
**Mr Amarender Katkam**  
Founder & CEO, TheSmartBridge &  
SmartInternz

[https://smartinternz.com/internships/salesforce\\_certificates/09edf2c698a3b122d8118387ce2642ff](https://smartinternz.com/internships/salesforce_certificates/09edf2c698a3b122d8118387ce2642ff)

1/2

Congratulation to Mr. Vatsal Sharma, Student, Department of Computer Science & Engineering. He completed 8 week (November-December 2023) salesforce developer virtual internship.



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## DEPARTMENT ACHIEVEMENTS

### Amazon ML Summer School

#### LETTER OF ACKNOWLEDGEMENT

This is to acknowledge that **Madhur Agrawal** from **Meerut Institute of Engineering and Technology** has attended Amazon ML Summer School 2023 - an integrated learning program for students on key Machine Learning (ML) topics including Supervised Learning, Deep Neural Networks, Dimensionality Reduction, Unsupervised Learning, Probabilistic Graphical Models, Sequential Learning, Causal Inference and Reinforcement Learning. Amazon ML Summer School 2023 was held virtually on September -16, 17, 23, 24, 30, October – 1, 7 and 8.

**Date**

November 8, 2023



Congratulation to Mr. Madhur Agarwal, Student, Department of Computer Science & Engineering. He attended (September-October 2023) Amazon ML summer School for enhancing the technical knowledge.



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## DEPARTMENT ACHIEVEMENTS

aws  certified

# ANSHUL SHARMA

AWS Certified Cloud Practitioner

**VALIDATION NUMBER:** HJD622528NQ1QGG6

**VALIDATE AT:** <https://aws.amazon.com/verification>

**Issue Date:** Oct 31, 2023

**Expiration Date:** Oct 31, 2026

Congratulation to Mr. Anshul Sharma, Student, Department of Computer Science & Engineering. He got AWS certified Cloud Practitioner certification on 31 October 2023.





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## DEPARTMENT ACHIEVEMENTS



Smart India Hackathon 2023 is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem solving.

Prakhar (Team Member), Department of CSE won the cash prize of 1 Lakh rupees in SIH 2023 conducted by Ministry of Education. Congratulation to him for the same.





## TOP 10 COMPETITIVE CODING WEBSITES

### Competitive Coding Website

S. No.	Website	Links
1	HackerEarth	<a href="https://www.hackerearth.com/">https://www.hackerearth.com/</a>
2	HackerRank	<a href="https://www.hackerrank.com/">https://www.hackerrank.com/</a>
3	CodeWars	<a href="https://www.codewars.com/">https://www.codewars.com/</a>
4	CodeChef	<a href="https://www.codechef.com/">https://www.codechef.com/</a>
5	LeetCode	<a href="https://leetcode.com/">https://leetcode.com/</a>
6	Project Euler	<a href="https://projecteuler.net/">https://projecteuler.net/</a>
7	Repl Challenges	<a href="https://challenges.repl.com/">https://challenges.repl.com/</a>
8	KickStart — Google's Coding Competitions	<a href="https://codingcompetitions.withgoogle.com/kickstart">https://codingcompetitions.withgoogle.com/kickstart</a>
9	Kaggle Learn	<a href="https://www.kaggle.com/learn">https://www.kaggle.com/learn</a>
10	TopCoder	<a href="https://www.topcoder.com/">https://www.topcoder.com/</a>



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# TECH SPACE

## VOLUME-18

*EDITORIAL BOARD*



MR. ANKUSH GUPTA  
ASSISTANT PROFESSOR



ANKUSH KUMAR KOTHIYAL  
STUDENT (FINAL YEAR)