

6.3.3 Number of professional development / administrative training programs organized by the institution for teaching and non-teaching staff during the year (Session 2022-23)

Dates (from-to) (DD/MM/YYYY)	Title of the professional development program organised for teaching staff	Title of the administrative training program organised for non-teaching staff	No. of participants
22/02/2023 to 03/03/2023	Professional Development Program		14
15/02/2023	AIMA HRM Summit		2
31/07/2023	Special Lecture on Income Tax		28
02/08/2023	Complex stresses by Mohr's circle method		10
05/08/2023	An overview on vapour power cycles		10
09/08/2023	Analysis of true stress strain curve		9
16/08/2023	Part programming for CNC drilling operation		6
16/08/2023	An overview on Bernoulli's Equation and its applications on various measuring devices		11
19/08/2023	An overview of Automotive Engines		9
23/08/2023	Formation of SFD/BMD of different type of structures		10
23/08/2023	The role of break even analysis and inventory control in a project		11
03/08/2023	Faculty Lecture Series on Ozone Development: A global issue by Dr. Hema Negi		96
10/08/2023	Morphology and Nutritional Aspect of Mushroom by Dr. J. P Kannaujia		102
17/08/2023	Integrated Nutrient Management by Dr. Vipin Kumar		92
20/12/2022		Excel Training for Non Technical Staff	5
16/02/2023		MS-Word Basics for Administrative Staff	7
29/04/2023			52
02/08/2023 to 03/08/2023	PDP on Effective Teaching and High Impact Classroom Skills		12
09/08/2023 to 10/08/2023	PDP on Understanding Soil and Water Relations		12
12/08/2023 to 13/08/2023	PDP on Analysis of Static Indeterminacy of Structure		12
	Knowledge Based Symposium Programme on India Emerging as Bio-diversity Champion		13
26/08/2023 to 27/08/2023	Knowledge Based Symposium Programme on An Experimental Study and Application of Calcite Precipitation Bacteria used in concrete and mortar		13



Meerut Institute of Technology (Professional Courses), Meerut

Department of Business Administration & Commerce

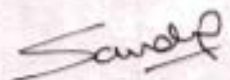
NOTICE


Date: 16/02/2023

All the faculty members are informed that "Department of Business Administration & Commerce" will be organizing "Professional Development Program" from 22nd February 2023 to 03rd March 2023 (T. The details are as follows:

DATE: 22nd February 2023 to 03rd March 2023
TITLE: Professional Development Program
TIMINGS: 03:00pm to 4:00pm
VENUE: Room 113, First Floor, A Block, MIT, Meerut.

The faculty wise details and topic details has been already circulated. The concerned team members are requested to prepare accordingly.


Dr. Sandeep Kapoor
(HOD-Commerce)


Dr. Ankur Goel
(HOD-BBA)

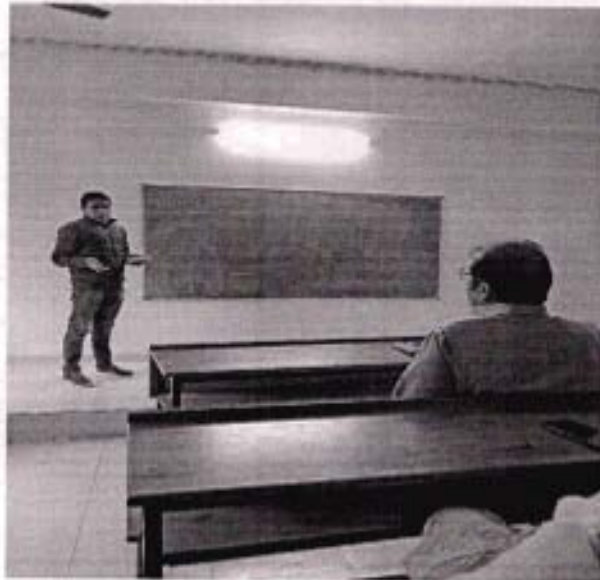
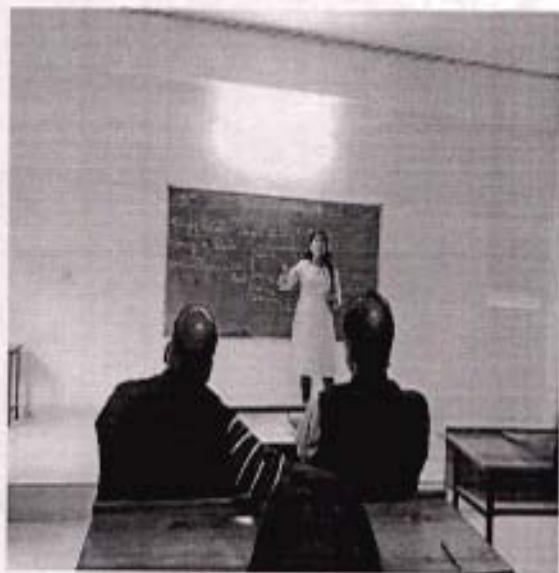
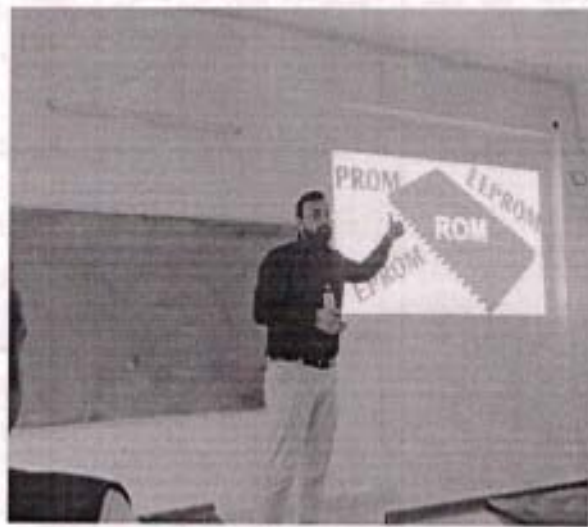
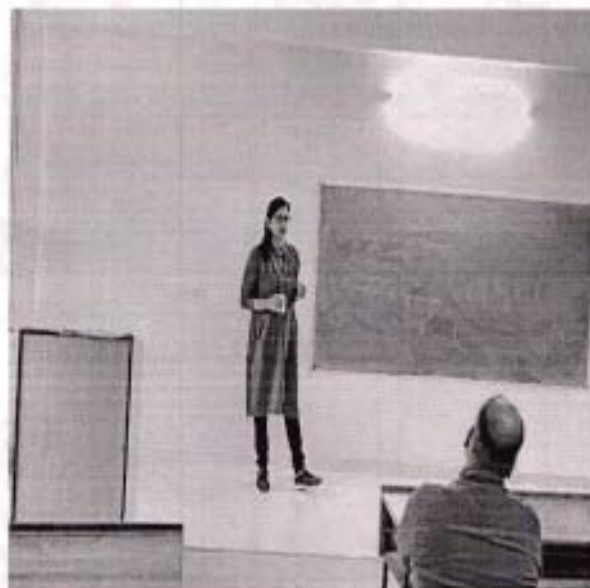


PROFESSIONAL DEVELOPMENT PROGRAM (Daywise Schedule)			
S.No	Date	Faculty Name	Topic
1	22/02/2023	Dr. Ankur Goel	Transportation Problem
2		Dr. Pradeep Chaudhary	Research Process
3	23/02/2023	Ms. Jyoti Tyagi	Types of Accounts
4	24/02/23	Mr. Asim Rizvi	Basics of Ecommerce
5		Ms. Varsha Kaushik	Process of Communication
6		Ms. Aditi Sharma	Meaning of HRM
7		Ms. Musrat	Entrepreneurship meaning and characteristics
8	25/02/2023	Mr. Vishal Tyagi	Types of Memory
9		Mr. Tushar Kumar	Theory X and Theory Y
10		Ms. Tanya Sharma	CDMP
11		Mr. Abhijeet Chatterjee	Meaning and Classification of Cost
12	2/3/2023	Ms. Renu Singh	Depreciation & Its Types
13		Ms. Jyoti Singh	Micro & Macro Environment
14	3/3/2023	Mr. Anshul	New Product Development

Sanap

D. D. S.





Meerut Institute of Technology (Professional Courses), Meerut

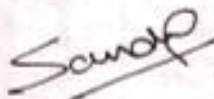
Department of Business Administration & Commerce

04 March 2023

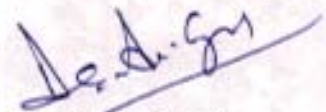
Concluding Remarks

Department of Business Administration & Commerce has organized a "Professional Development Program" from 22nd February 2023 to 03rd March 2023 where 14 faculty members of BBA/Commerce had successfully participated and presented a comprehensive view of the specific topic of their concerned specialization/subject. All presenters were completely justified to make their topic understand to all the faculty members. Honorable Principal (PC), MIT, Meerut - Dr. Himanshu Sharma, had motivated and appreciated the efforts of everyone in this regard.

Thanks & Regards,



Dr. Sandeep Kapoor
(HOD-Commerce)



Dr. Ankur Goel
(HOD-BBA)



MEERUT INSTITUTE OF TECHNOLOGY (PC), MEERUT (UP)

Department of Business Administration

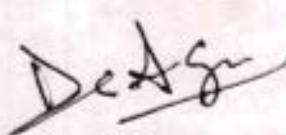
Date: 13/02/2023

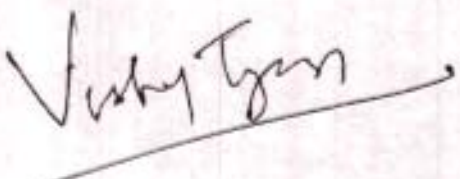
NOTICE

This is to inform you all that 'Department of Business Administration' will be participating in AIMA HRM Summit in New Delhi (mail attached), the details for which are as follows:

- Proposed Date & Time: 15/02/23 & 9:10 a.m. onwards.
- Proposed Topic: HRM Summit
- Proposed Venue: Indian habitat Center, New Delhi
- Participant: Two faculty members of BBA.

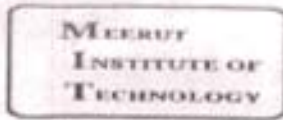
The concerned faculty members are hereby requested to reach on time.


Dr. Ankur Goel
(HoD-BBA)









Ankur Goel <drankur.goel@mitmeerut.ac.in>

Fwd: Invitation-AIMA's HRM Summit, 15th February 2023

2 messages

Vishal Tyagi <vishal.tyagi@mitmeerut.ac.in>
To: Ankur Goel <drankur.goel@mitmeerut.ac.in>

Mon, Feb 13, 2023 at 11:18 PM

----- Forwarded message -----

From: **HOD MBA** <hodmba@miet.ac.in>
Date: Tue, 14 Feb 2023 at 12:42 PM
Subject: Fwd: Invitation-AIMA's HRM Summit, 15th February 2023
To: Dr. Reenu Singh <reenu.singh@miet.ac.in>, Nisha Sharma <nisha.sharma@miet.ac.in>, vishal.tyagi@mitmeerut.ac.in <vishal.tyagi@mitmeerut.ac.in>

----- Forwarded message -----

From: **Ashu Sikri** <asikri@aima.in>
Date: Tue, Feb 14, 2023 at 12:30 PM
Subject: Invitation-AIMA's HRM Summit, 15th February 2023
To: hodmba@miet.ac.in <hodmba@miet.ac.in>

Dear Madhu ji,

PFB the HRM email sent to Mr. Puneet Agrawal for your reference.

Thanks & Regards

I Ashu Sikri I
I Assistant Director – AIMA Business Lab I
I M - + 91 99999 78227 I E – asikri@aima.in I
I W – <https://simulation.aima.in> I www.aimabizlab.com I
I LinkedIn-<https://www.linkedin.com/in/ashu-sikri-8128692b/> I

From: Ashu Sikri
Sent: Monday, February 13, 2023 6:52 PM
To: puneet@miet.ac.in
Cc: Ravi Jangra <rjangra@aima.in>
Subject: Invitation-AIMA's HRM Summit, 15th February 2023



AIMA's HRM Summit
'Transformational HR : Catalyst for the Future Organization'
Wednesday, 15 February 2023
Silver Oak, India Habitat Center, New Delhi

Dear Mr. Agrawal,

Greetings from All India Management Association – apex body for Management in India.

This is in reference to your discussion with Mr. Ravi Jangra, we are extending this complementary invitation for you and your team members, kindly nominate 5 key members from your organization to attend **AIMA's HRM Summit on 15th February 2023** and take advantage of this unique opportunity to learn and interact with the leading HR Leaders.

AIMA organizes the HRM Summit every year and it makes a comeback in its physical avatar this year on **15th February 2023 at Silver Oak, India Habitat Centre, New Delhi.**

The summit is one of the most prestigious platforms in the management calendar of the country and sees participation by the HR fraternity from across industries and across the country. The Summit features some of the top thought leaders and HR professional and deliberates upon topical issues of current importance attracting over 150 delegates from industry, Government, Media and Academia.

The sessions at the Summit will focus on many key aspects of the new HR, including redesigning the organization, managing digital talent, facilitating collaboration between people and machines and contributing to competitiveness of the company in an unpredictable business environment.

Senior HR leaders are Speakers at the Summit. Details in Agenda and Flyer attached.

Registration form is attached.

I look forward to having nominations of few colleagues from your organization and their joining us at AIMA's HRM Summit.

Thanks & Regards

I Ashu Sikri I

I Assistant Director – AIMA Business Lab I

I M - + 91 99999 78227 I E – asikri@aima.in I

I W – <https://simulation.aima.in> I www.aimabizlab.com I

I LinkedIn-<https://www.linkedin.com/in/ashu-sikri-8128692b/> I






Thanks & Regards

Vishal Kumar Tyagi

Assistant Professor - Department of Business Administration
Assistant Manager - Meerut Udyami Foundation (Incubation Cell)
Meerut Institute of Technology
Meerut, Uttar Pradesh
+91 8800698607
+91 6395489633

For MIT, Meerut updates, visit the following links:-
Website :- mitmeerut.ac.in | mitedu.ac.in | mitpharmacy.org
Telegram | Facebook | LinkedIn | Instagram | YouTube

3 attachments

-  Agenda AIMA HRM Summit.doc
68K
-  HRM Summit 2023 Flyer.pdf
671K
-  Registration Form - AIMA's HRM Summit 2023.doc
83K

Ankur Goel <drankur.goel@mitmeerut.ac.in>
To: himanshu.sharma@mitmeerut.ac.in
Cc: charu.goel@mitmeerut.ac.in

Tue, Feb 14, 2023 at 12:43 AM

Respected Sir,

As per the conversation held with you in the morning, myself and Mr. Vishal Kumar Tyagi from BBA will be going tomorrow(15/02/2023) around 8:00am for the below mentioned event. I will be taking car from MIET or MIT and Mr. Vishal will be picked up from modinagar itself.

Looking forward to your kind acknowledgement.

Regards,

Dr. ANKUR GOEL,
Professor & HoD-BBA,
Meerut Institute of Technology, MIET Group, NAAC 'A' Grade.
Meerut (UP) - 250103

Google Scholar Id: [vdTG-i8AAAAJ](https://scholar.google.com/citations?hl=en&user=vdTG-i8AAAAJ)
Orcid Id: [0000-0002-8647-6426](https://orcid.org/0000-0002-8647-6426)
Scopus Id: [57193865261](https://scopus.com/authid/detail.uri?authorId=57193865261)

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3 attachments



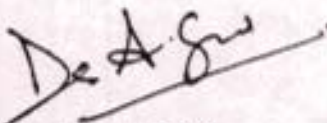
MEERUT INSTITUTE OF TECHNOLOGY (PC), MEERUT (UP)

Department of Business Administration

Concluding Remarks

15th February 2023

Dr. Ankur Goel & Mr. Vishal Kumar Tyagi of BBA had attended the AIMA HRM Summit on 15/02/2023 at Indian Habitat Center, New Delhi wherein eminent speakers across the industry have provided insightful and meaningful arenas related to HRM industry. They also told about the transforming nature of HRM in current era. It has been an awesome and lifetime experience to attend this summit.


Dr. Ankur Goel
(HoD-BBA)



Meerut Institute of Technology, Meerut

Department of Commerce

24-07-2023

Notice

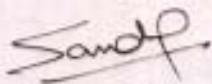
A special lecture on Income Tax will be conducted by the Department of Commerce as per following details.

Date: 31-08-2023,

Time: 3:00pm

Venue: A-Block, Room No. A-107

All the teaching staff members are invited. Please inform to Mr. Asim Rizvi that you are coming to attend latest by 27th July 2023.



Dr. Sandeep Kapoor

HOD-Commerce



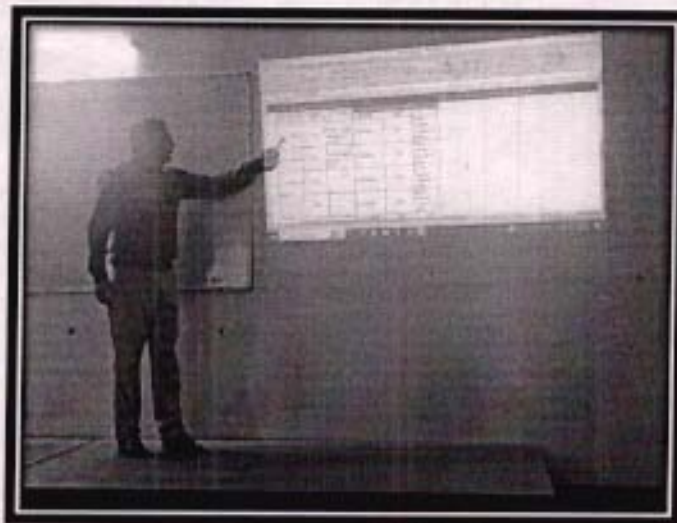
Meerut Institute of Technology, Meerut

Department of Commerce

01-08-2023

Concluding Remarks

The special lecture on Income tax was conducted by Dr. Sandeep Kapoor, Head Commerce Department. He has explained various heads of Income like Salary, House Property, Capital Gains, Business/Profession & Other sources. He has also explained the various types of ITR form along with the eligibility of each type of form. Apart from the he explained the difference old and new tax regime and provided an excel calculator to find out which regime is best for a tax payers.



Around 28 faculty members attended this special lecture.

Asim Rizvi

Assistant Professor



List of Faculty Member Attended the Lecture

S.No.	Name of Faculty Members
1	Dr. Somendra Shukla
2	Mr. Lalit Kumar
3	Ms. Musrat
4	Ms. Renu Singh
5	Mr. Asim Rizvi
6	Dr. Pradeep Kumar
7	Mr. Abhijit Chatterjee
8	Ms. Ruby Singh
9	Ms. Archana Siwach
10	Ms. Akansha Baliyan
11	Mr. Tushar Kumar
12	Ms. Komal Sharma
13	Ms. Aditi Sharma
14	Dr. Sapna Deshwal
15	Ms. Jyoti Singh
16	Ms. Jyoti Tyagi
17	Mr. Manoj Kumar
18	Ms. Tanu Dixit
19	Ms. Tanu Chaudhary
20	Ms. Sonam Tomar
21	Mr. Amit Kumar
22	Mr. Sandeep Bharti
23	Mr. Ram Kumar
24	Ms. Gulfsha Parveen
25	Ms. Preeti Sharma
26	Ms. Aditi
27	Ms. Shivali Sharma
28	Ms. Tanya Sharma

Am



Report on Departmental Presentation Held on 02.08.2023

Meerut Institute of Technology, Meerut

Date of Event	02.08.2023
Name and Type of Event	Departmental Presentation- "Complex Stresses by Mohr' Circle Method"
Conducted by	Mr. Ravi Ranjan Kumar
No. Of Participants	10

Introduction: A Departmental lecture was organized on the topic of "complex stresses by Mohr' circle method," aiming to provide participants with an in-depth understanding of various aspects of complex stresses, this method simplifies the representation of stress components and provides a clear understanding of principal stresses, maximum shear stresses, and stress transformation. This lecturer comprised a sequence of informative sessions delivered by **Mr. Ravi Ranjan Kumar**, covering different aspects of vapor power cycles.

Lecture Topics: The Departmental lecture was focused on a specific aspect of complex stresses :

1. Introduction: The Mohr Circle Method is a graphical technique used for visualizing and analyzing complex stress states in materials. Developed by Otto Mohr, this method simplifies the representation of stress components and provides a clear understanding of principal stresses, maximum shear stresses, and stress transformation. This report aims to explain the Mohr Circle Method and its application in analyzing complex stress states.

2. Basics of Mohr Circle:

a. Two-Dimensional Stress States: Mohr Circle is commonly used for two-dimensional stress analysis. In a two-dimensional stress state, there are two mutually perpendicular planes where stress is being analyzed.

3. Mohr Circle Construction

a. Axis Representation- Horizontal axis represents normal stresses (σ), Vertical axis represents shear stresses (τ).



b. Plotting Stress Points:

Plot the coordinates corresponding to normal and shear stresses on the Mohr Circle diagram.

Repeat this process for different stress states or different planes of interest.

c. Principal Stresses:

The Mohr Circle's diameter represents the difference between the two principal stresses.

Principal stresses are located at the circle's intersection with the horizontal axis.

d. Maximum Shear Stress:

The maximum shear stress corresponds to the circle's radius.

4. Conclusion:

The Mohr Circle Method is a powerful tool for engineers and material scientists to analyze complex stress states in a graphical and intuitive manner. While limited to two-dimensional stress analysis, its simplicity and effectiveness make it an invaluable technique for understanding stress transformation, principal stresses, and maximum shear stresses in materials and structures. It remains a fundamental aspect of stress analysis in engineering and continues to be widely utilized in educational and practical applications.

Nagendra

Coordinator

(Mr. Nagendra Kumar)





Neelendra



Report on Faculty Lecture Series Held on 05.08.2023

Meerut Institute of Technology, Meerut

Date of Event	05.08.2023
Name and Type of Event	Faculty Lecture Series – "An Overview on Vapour Power Cycles"
Conducted by	Mr. Ravi Ranjan Kumar
No. Of Participants	10

Introduction: A comprehensive lecture series was organized on the topic of "An Overview on Vapor Power Cycles," aiming to provide participants with an in-depth understanding of various aspects of vapor power cycles, their applications, and their significance in energy generation. The series comprised a sequence of informative sessions delivered by **Mr. Ravi Ranjan Kumar**, covering different aspects of vapor power cycles.

Lecture Topics: The lecture series was focused on a specific aspect of vapor power cycles:

- 1. Introduction to Thermodynamics and Power Cycles:** The series kicked off with an overview of the fundamental principles of thermodynamics and an introduction to power cycles. The presenter explained the concepts of energy transfer, efficiency, and the key components of power cycles.
- 2. Carnot Cycle and Ideal Rankine Cycle:** This session delved into the Carnot cycle, considered as an ideal benchmark for thermodynamic efficiency. The ideal Rankine cycle, which forms the foundation of steam power plants, was introduced with a focus on its theoretical aspects.
- 3. Components of Vapor Power Plants:** Participants were introduced to the key components of vapor power plants, including boilers, turbines, condensers, and pumps. The session highlighted their roles, operation, and interplay within the power generation process.
- 4. Advanced Power Cycles:** This session covered advanced variations of vapor power cycles, such as the reheat-regenerative cycle and combined-cycle systems. The benefits, challenges, and efficiency improvements offered by these cycles were elucidated.



Conclusion: The "Vapor Power Cycle" lecture series proved to be a valuable learning opportunity for participants, equipping them with the knowledge needed to analyze, design, and optimize vapor power cycles for efficient energy generation. The series not only covered theoretical concepts but also emphasized the practical applications and challenges faced by power plant engineers in the real world. This event effectively contributed to the participants' professional development and understanding of energy systems.

Nagendra

Coordinator

(Mr. Nagendra Kumar)

MIT
Meerut Institute of Technology
NAAC Grade 'B'

B.Tech. CSE, CDE (Data Science), PCE, ME, CE, AI & ML, B. Pharm, (D. Pharm), BBA, BCA, B.A. Com, B. Com (Hons.), B. Sc. Agriculture, B. Sc. (Hons.) Chemistry, B. Sc.

FACULTY LECTURE SERIES
"AN OVERVIEW OF VAPOUR POWER CYCLE"

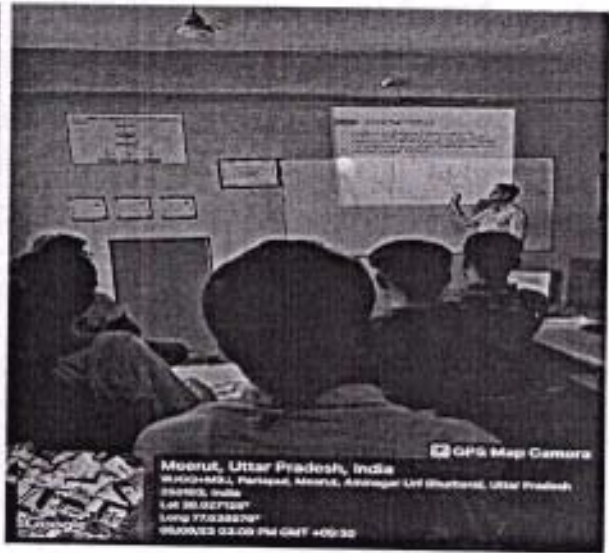
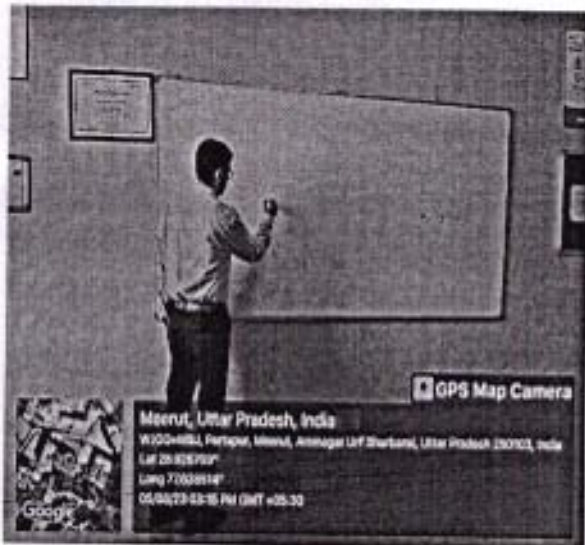
Date: 5 Aug 2023
Time: 3:00 p.m.
Venue: F 10a

Speaker:
Ravi Ranjan Kumar

GPS Map Camera

Meerut, Uttar Pradesh, India
WJQQ+M04, Fortapur, Meerut, Amnagar Ind Industrial, Uttar Pradesh 250103, India
Lat 28.02689°
Long 77.03852°
05/08/23 03:05 PM GMT +05:30





Nagendra



Report on Departmental Presentation Held on 09.08.2023

Meerut Institute of Technology, Meerut

Date of Event	09.08.2023
Name and Type of Event	Departmental Presentation- "Analysis of True Stress-Strain Curve"
Conducted by	Ms. Ruchi Mittal
No. Of Participants	09

Introduction: A Departmental lecture was organized on the topic of " **Analysis of True Stress-Strain Curve,**" The true stress-strain curve is a fundamental tool in materials science and engineering for understanding the mechanical behavior of materials under external loads. This report aims to provide a comprehensive analysis of the true stress-strain curve, exploring its significance, applications, and the underlying principles governing the behavior of materials. This lecturer comprised a sequence of informative sessions delivered by **Ms. Ruchi mittal** covering different aspects of Stress-Strain Curve.

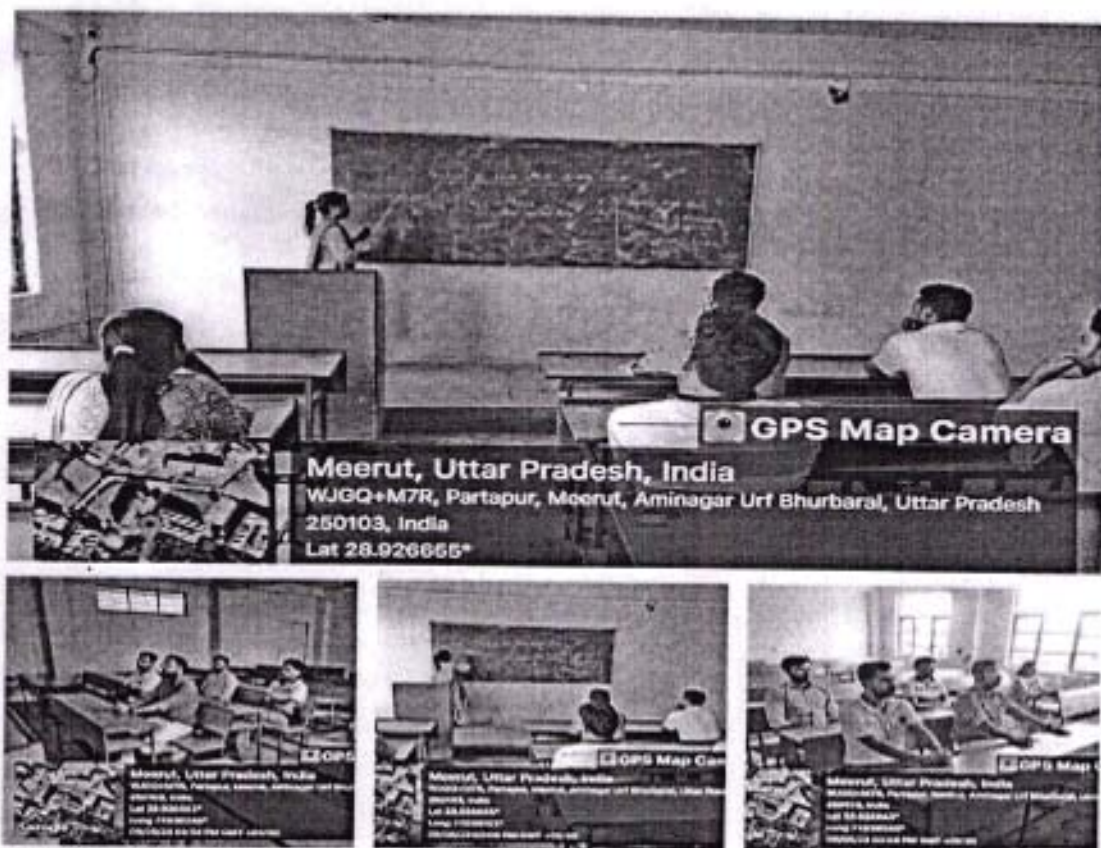
Lecture Topics: The Departmental lecture was focused on a specific aspect of **Analysis of True Stress-Strain Curve:**

- 1. Introduction:** The true stress-strain curve is a graphical representation of the relationship between true stress and true strain during the deformation of a material. Unlike engineering stress-strain curves, which consider the original dimensions of the specimen, true stress and true strain take into account the instantaneous dimensions of the material as it undergoes deformation. This makes the true stress-strain curve a more accurate representation of material behavior, especially in the plastic deformation region.
- 2. Experimental Methods:** Analysis of the true stress-strain curve often involves conducting tensile tests on material specimens. During these tests, load and displacement measurements are recorded, and the true stress and true strain values are calculated based on the instantaneous cross-sectional area and length of the specimen. Experimental data is then used to construct the true stress-strain curve.



3. **Significance of True Stress-Strain Curve:** The true stress-strain curve provides crucial information about a material's mechanical properties, including its elastic modulus, yield strength, ultimate tensile strength, and ductility. Engineers use this data to design structures and components that can withstand various loading conditions while ensuring safety and reliability.
4. **Conclusion** The analysis of the true stress-strain curve is a critical aspect of materials science and engineering. It provides valuable insights into the mechanical behavior of materials, helping engineers and researchers make informed decisions in designing materials for specific applications. Further research and advancements in testing techniques will continue to enhance our understanding of material behavior and contribute to the development of new materials with improved mechanical properties.

Coordinator
(Mr. Nagendra Kumar)



Report on A Departmental Lecture Series Held on 16.08.2023

Meerut Institute of Technology, Meerut

Date of Event	16.08.2023
Name and Type of Event	A Departmental Faculty Lecture Series – “ Part programming for CNC drilling operation (CANNED CYCLE) ”
Conducted by	Mr. Gaurav Kumar
No. Of Participants	06

Introduction: A comprehensive lecture series was organized on the topic of " aiming to provide participants with an in-depth understanding of various aspects of **Part programming for CNC drilling operation (CANNED CYCLE)**. The series comprised a sequence of informative sessions delivered by **Mr. Gaurav Kumar**, discussing various aspects of Part programming for CNC.

Lecture Topics: The lecture series was focused on a specific aspect of Part programming for CNC:

- CNC PART PROGRAMMING.
- PROGRAM INPUT DEVICE.
- MACHINE CONTROL UNIT.
- CNC PROGRAMMING.
- PART PROGRAMMING FOR CNC DRILLING OPERATION (CANNED CYCLE).

Introduction:

A part program is a series of coded instructions required to produce a part. It controls the movement of the machine tool and the on/o control of auxiliary functions such as spindle rotation and coolant. The coded instructions are composed of letters, numbers and symbols and are arranged in a format of functional blocks a sin .

PROGRAM INPUTDEVICE

The program input device is the mechanism for part programs to been tered into the CNC control. The most commonly used program input devices are keyboards, punched tape reader, diskette drivers, through RS232 serial ports and networks.

MACHINE CONTROL UNIT



The machine control unit (MCU) is the heart of a CNC system. It is used to perform the following functions:

- Read coded instructions
- Decode coded instructions
- Implement interpolations (linear, circular, and helical) to generate axis motion commands
- Feed axis motion commands to the amplifier circuits for driving the axis mechanisms
- Receive the feedback signals of position and speed for each drive axis
- Implement auxiliary control functions such as coolant or spindle on/off, and tool change.

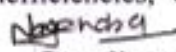
CNC PROGRAMMING

- Of one programming linked to CAD programs.
- Conversational programming by the operator.
- MDI
~ Manual Data Input.
- Manual Control
using jog buttons or 'electronic hand wheel'.
- Word-Address Coding
Using standard G-codes and M-codes.

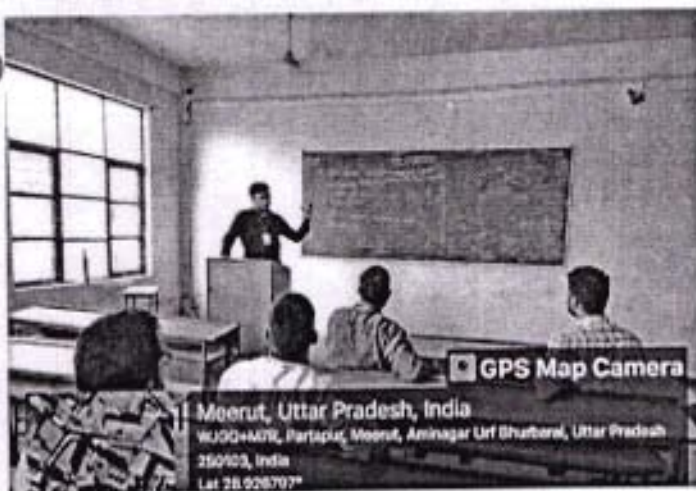
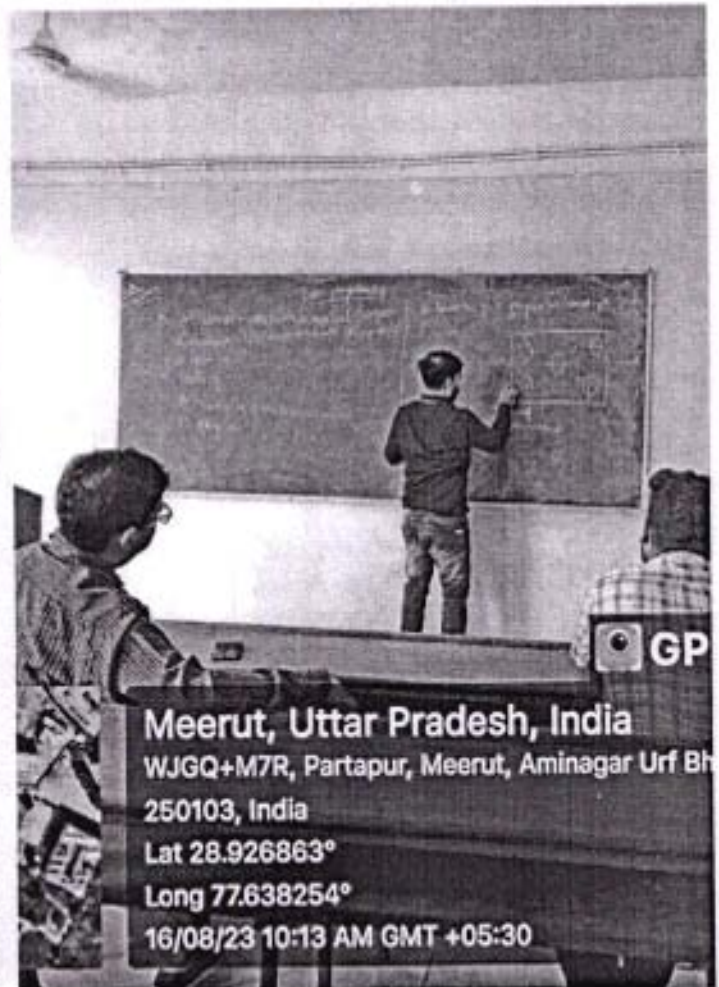
Conclusion: CNC programming involves several critical steps to ensure the accuracy, efficiency, and safety of the machining process. Here's a breakdown of what it typically entails:

Code Verification: Before proceeding, thoroughly review the CNC code to ensure it accurately reflects the intended design and machining operations. Check for errors, inconsistencies, or missing commands that could affect the outcome.

Simulation and Visualization: Utilize simulation software to visualize the toolpaths and simulate the machining process. This step helps identify any potential collisions, toolpath inefficiencies, or programming errors before actual machining begins.


Coordinator
(Mr. Nagendra Kumar)





Nagambal



Report on Departmental Presentation Held on 16.08.2023

Meerut Institute of Technology, Meerut

Date of Event	16.08.2023
Name and Type of Event	Departmental Presentation- "An overview on Bernoulli's Equation and its Application on various measuring devices"
Conducted by	Mr. Nagendra Kumar
No. Of Participants	11

Introduction: A Departmental lecture was organized on the topic of "An overview on Bernoulli's Equation and its Application on various measuring devices." Bernoulli's equation is a fundamental principle in fluid dynamics that describes the relationship between pressure, velocity, and potential energy in a fluid flow. This equation has widespread applications in various measuring devices across different fields. This report provides an overview of Bernoulli's equation, its significance, and its applications in measuring devices. This lecturer comprised a sequence of informative sessions delivered by Mr. Nagendra Kumar, covering different aspects of Bernoulli's Equation.

Lecture Topics: The Departmental lecture was focused on a specific aspect of An overview on Bernoulli's Equation :

- 1. Introduction:** Bernoulli's equation, named after the Swiss mathematician Daniel Bernoulli, is a fundamental concept in fluid mechanics. It is a statement of the conservation of energy principle applied to fluid flow. The equation relates the pressure, velocity, and potential energy of a fluid along a streamline and finds applications in a wide range of industries.
- 2. Applications in Measuring Devices:**

2.1 Venturi Meter: One common application of Bernoulli's equation is in the Venturi meter, a device used to measure the flow rate of a fluid. The Venturi meter consists of a constricted tube



that causes an increase in fluid velocity, leading to a decrease in pressure according to Bernoulli's equation. By measuring the pressure difference, the flow rate can be determined.

2.2 Pitot Tube: Pitot tubes are widely used in aerodynamics and fluid mechanics to measure the velocity of a fluid, particularly in aircraft. The principle relies on Bernoulli's equation, where the dynamic pressure of the fluid is determined by measuring the difference between the total pressure and static pressure.

2.3 Flow meters: Various types of flow meters, such as electromagnetic, ultrasonic, and differential pressure flow meters, utilize Bernoulli's equation to measure fluid flow rates accurately. The equation helps in relating the pressure drop across a constriction to the flow rate.

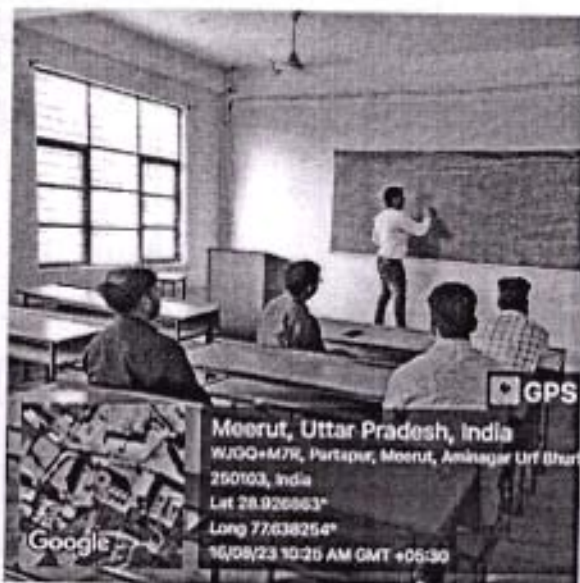
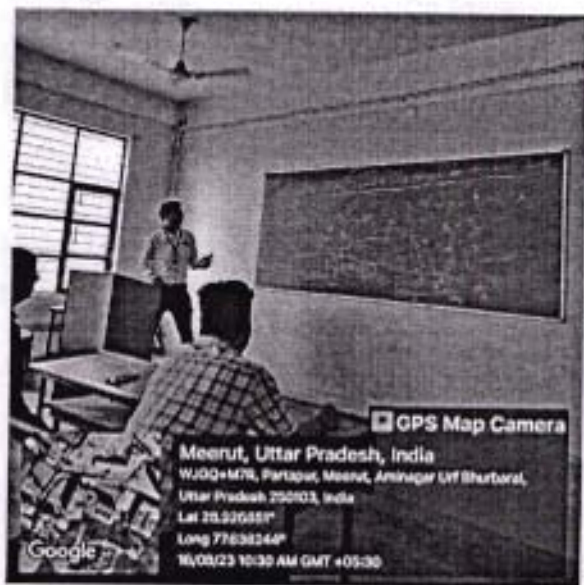
2.4 Blood Flow Measurement: In the field of medicine, Bernoulli's equation finds application in measuring blood flow through vessels. Devices like Doppler ultrasound instruments use the principle to assess blood flow velocity based on the frequency shift of reflected ultrasound waves.

3. Conclusion

Bernoulli's equation is a powerful tool with diverse applications in measuring devices across different disciplines. Its ability to relate pressure, velocity, and potential energy in fluid flow has contributed significantly to the development of accurate and reliable measurement techniques. Understanding and applying Bernoulli's equation continue to play a crucial role in engineering, physics, and various scientific and industrial fields.

Coordinator
(Mr. Nagendra Kumar)





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MIT
Meerut, Uttar Pradesh, India

Report on Faculty Lecture Series Held on 19.08.2023

Meerut Institute of Technology, Meerut

Date of Event	19.08.2023
Name and Type of Event	Faculty Lecture Series – "AN OVER VIEW OF AUTOMOTIVE ENGINES "
Conducted by	Ms. Ruchi Mittal
No. Of Participants	9

Introduction: A comprehensive lecture series was organized on the topic of " AN OVER VIEW OF AUTOMOTIVE ENGINES," aiming to provide participants with an in-depth understanding of various aspects of Automotive Engines, their applications, and their significance. Automotive engines are the vital power source, converting fuel into motion, propelling vehicles. Their efficiency impacts performance, fuel economy, and environmental sustainability in modern transportation systems. The series comprised a sequence of informative sessions delivered by **Ms. Ruchi Mittal**, covering different aspects of Automotive Engine.

Lecture Topics: The lecture series was focused on a specific aspect of Automotive Engines:

Automotive engines are the heart of vehicles, converting fuel into mechanical energy to power the vehicle. They come in various types and configurations, each with its own characteristics and applications. Here is an overview of automotive engines:

1. Internal Combustion Engines (ICE):

Gasoline Engines: These engines run on gasoline and are commonly found in most passenger cars. They operate on the Otto cycle, where fuel and air are compressed before ignition.

Diesel Engines: Diesel engines use diesel fuel and operate on the Diesel cycle. They are known for their efficiency and torque, making them common in trucks and heavy-duty vehicles.

2. Engine Configurations:

Inline Engines: Cylinders are arranged in a straight line.

V Engines: Cylinders are arranged in a V shape



3. Engine Components:

Cylinders: The main chambers where combustion takes place.

Pistons: Move up and down within cylinders, converting combustion energy into mechanical motion.

Crankshaft: Converts linear motion of pistons into rotational motion.

Camshaft: Controls the opening and closing of engine valves.

4. Engine Management Systems:

Electronic Control Units (ECU): Control various aspects of engine operation, including fuel injection timing, air-fuel mixture, and emissions.

5. Emissions Control

Catalytic Converters: Reduce harmful emissions by converting them into less harmful substances.

Emission Standards: Vehicles must comply with specific emissions standards set by regulatory authorities.

Conclusion: As automotive technology continues to evolve, engines are becoming more efficient, environmentally friendly, and integrated with advanced features such as connectivity and automation. The diversity of engine types and configurations allows manufacturers to tailor their offerings to meet the specific needs of different vehicles and markets



Coordinator

(Mr. Nagendra Kumar)





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FACULTY LECTURE SERIES

"AN OVER VIEW OF AUTOMOTIVE ENGINES"

Date: 19 Aug 2023
Time: 3:00 P.M.
Venue: F-204



Speaker:
Ruchi Mittal
Assistant Professor
Dept. of ME



Agenda



Report on Departmental Presentation Held on 23.08.2023
Meerut Institute of Technology, Meerut

Date of Event	23.08.2023
Name and Type of Event	Departmental Presentation– "Formation of SFD/BMD of different type of structures"
Conducted by	Mr. Rahul
No. Of Participants	10

Introduction: A Departmental lecture was organized on the topic of " **Formation of SFD/BMD of different type of structures,**" Structural analysis is a crucial step in the design and assessment of various types of structures, including beams, frames, and trusses. Shear Force Diagrams (SFD) and Bending Moment Diagrams (BMD) are essential tools in understanding the internal forces and moments within a structure. This report explores the formation of SFD and BMD for different types of structures. This lecturer comprised a sequence of informative sessions delivered by **Mr. Rahul**, covering different aspects of SFD/BMD.

Lecture Topics: The Departmental lecture was focused on a specific aspect of **Formation of SFD/BMD of different type of structures :**

- 1. Introduction:** Structural analysis is a crucial step in the design and assessment of various types of structures, including beams, frames, and trusses. Shear Force Diagrams (SFD) and Bending Moment Diagrams (BMD) are essential tools in understanding the internal forces and moments within a structure. This report explores the formation of SFD and BMD for different types of structures.
- 1. Basics of SFD and BMD ;**SFD represents the variation of shear forces along the length of a structural element, while BMD illustrates the bending moments. These diagrams provide engineers with a visual representation of internal forces, aiding in the design and evaluation of structural elements.
- 2. SFD/BMD Formation for Simple Beams:**For a simple supported beam with point loads and uniform distributed loads, the process of forming SFD and BMD involves identifying key points, calculating reactions at supports, and determining the internal forces at



various locations along the beam. Equations of equilibrium and relationships between loads and reactions guide the construction of these diagrams.

3. **Cantilevered Beams:** The formation of SFD and BMD for cantilevered beams involves considering the specific loading conditions at the free end and the support. Reactions and internal forces are determined based on equilibrium equations, and diagrams are constructed accordingly.

4. **Frames and Trusses:** Analyzing more complex structures like frames and trusses requires a systematic approach to determine the internal forces at various joints and elements. SFD and BMD for such structures involve considering the effects of external loads, support conditions, and member connectivity.

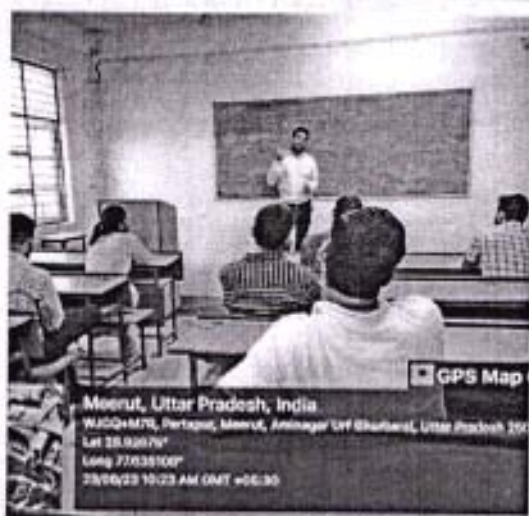
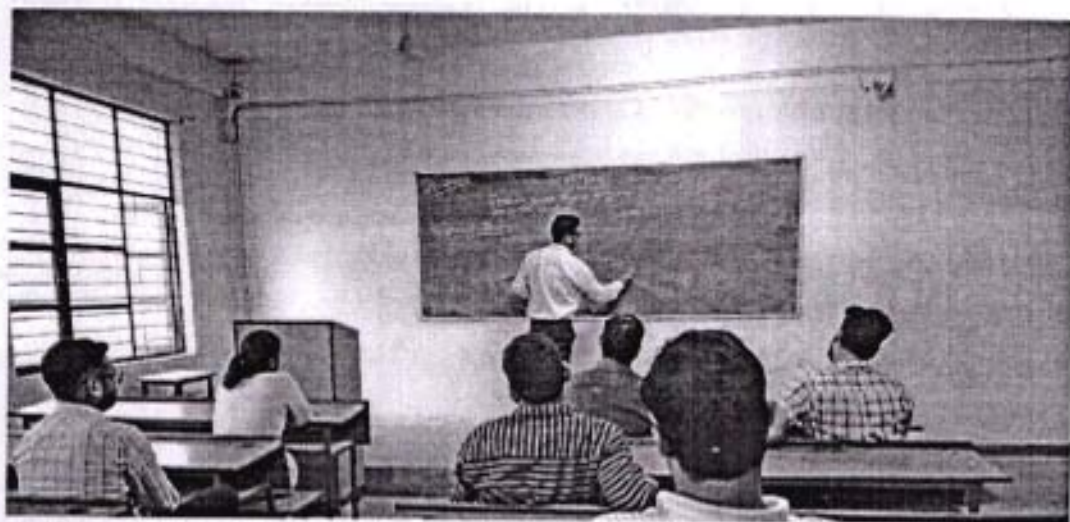
5. Conclusion

Formation of Shear Force Diagrams and Bending Moment Diagrams is a fundamental aspect of structural analysis for various types of structures. Engineers employ these diagrams to gain insights into internal forces, facilitating the design and assessment of structural elements. Understanding the principles outlined in this report is essential for ensuring the safety and efficiency of structures in engineering applications.

Coordinator

(Mr. Nagendra Kumar)





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MIT
Meerut - Uttar Pradesh - India

Report on Departmental Presentation Held on 23.08.2023

Meerut Institute of Technology, Meerut

Date of Event	23.08.2023
Name and Type of Event	Departmental Presentation- "The role of break even analysis and inventory control in a project"
Conducted by	Mr. Pankaj Kumar
No. Of Participants	11

Abstract: A Departmental lecture was organized on the topic of "The role of break even analysis and inventory control in a project". This report explores the crucial roles of break-even analysis and inventory control in project management. Both concepts are fundamental tools that contribute to the financial success and operational efficiency of a project. Break-even analysis aids in determining the point at which revenues equal costs, providing insights into profitability, while inventory control ensures optimal stock levels to meet demand without unnecessary holding costs." This lecturer comprised a sequence of informative sessions delivered by Mr. Pankaj Kumar, covering different aspects of break even analysis.

Lecture Topics: The Departmental lecture was focused on a specific aspect of "The role of break even analysis and inventory control in a project":

Introduction: Effective project management requires a comprehensive understanding of various financial and operational aspects. Break-even analysis and inventory control are integral components that enable project managers to make informed decisions and optimize resource utilization.



Break-Even Analysis:

2.1 Definition:

Break-even analysis is a financial tool used to determine the point at which total revenue equals total costs, resulting in neither profit nor loss. This point is crucial for project managers to assess the viability and sustainability of a project.

2.2 Importance in Project Management:

Profitability Assessment: Break-even analysis helps project managers identify the minimum revenue required to cover costs, allowing them to set realistic financial goals.

Risk Management: Understanding the break-even point enables project managers to assess the project's sensitivity to changes in costs or pricing, facilitating effective risk management.

Decision Making: By identifying the margin of safety (the difference between actual sales and break-even sales), project managers can make informed decisions on pricing, production levels, and resource allocation.

Inventory Control:

3.1 Definition:

Inventory control involves managing and optimizing the levels of goods or materials to meet demand efficiently while minimizing holding costs. Effective inventory control is crucial for project success, especially in industries where materials play a significant role.

3.2 Importance in Project Management:

Cost Reduction: Proper inventory control minimizes holding costs, such as storage and insurance, contributing to overall cost reduction.

Customer Satisfaction: Maintaining optimal inventory levels ensures that products are available when needed, enhancing customer satisfaction and loyalty.

Efficient Resource Utilization: Project managers can streamline production processes and resource allocation by having real-time insights into inventory levels.

Integration of Break-Even Analysis and Inventory Control:

Synergy: Combining break-even analysis with inventory control allows project managers to align financial goals with operational efficiency.



Dynamic Decision Making: Regularly updating break-even analysis in conjunction with inventory control data enables project managers to make dynamic decisions in response to market changes.

Case Studies: This section presents real-world case studies illustrating successful applications of break-even analysis and inventory control in project management across various industries.

Conclusion:

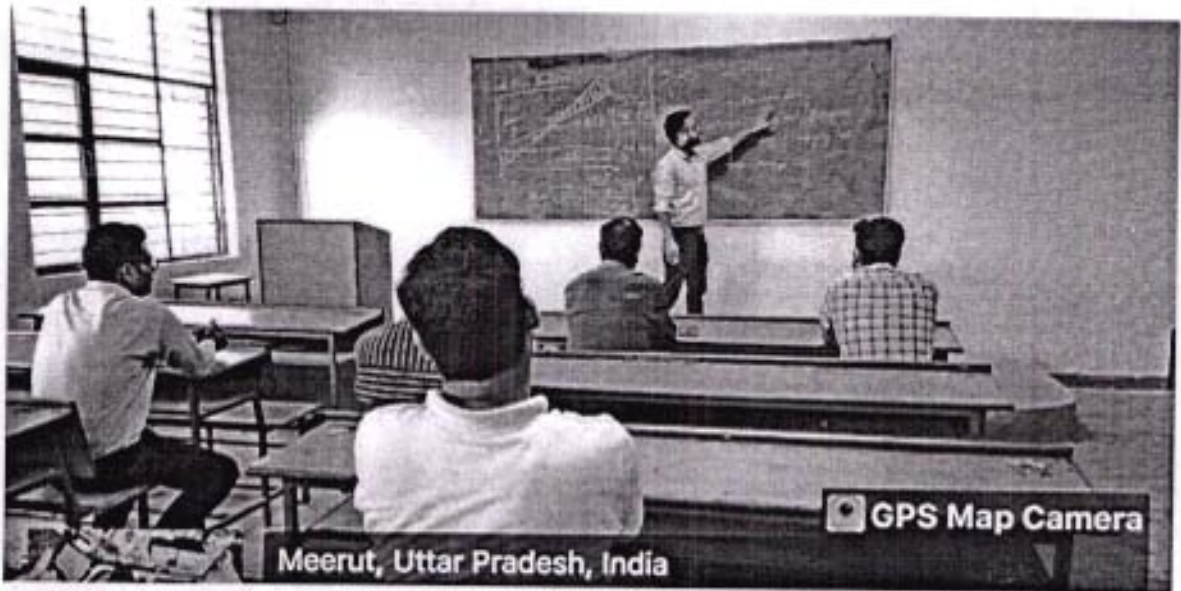
Break-even analysis and inventory control are indispensable tools in project management, contributing to financial viability, risk management, and operational efficiency. By integrating these concepts, project managers can make informed decisions that lead to project success and sustained profitability.

Nagendra

Coordinator

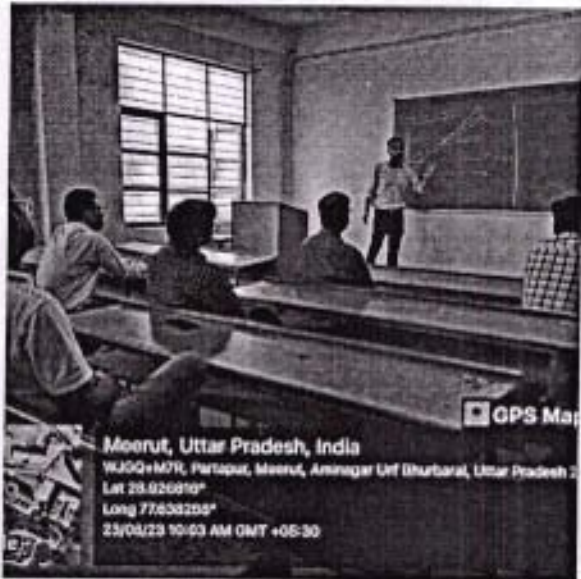
(Mr. Nagendra Kumar)



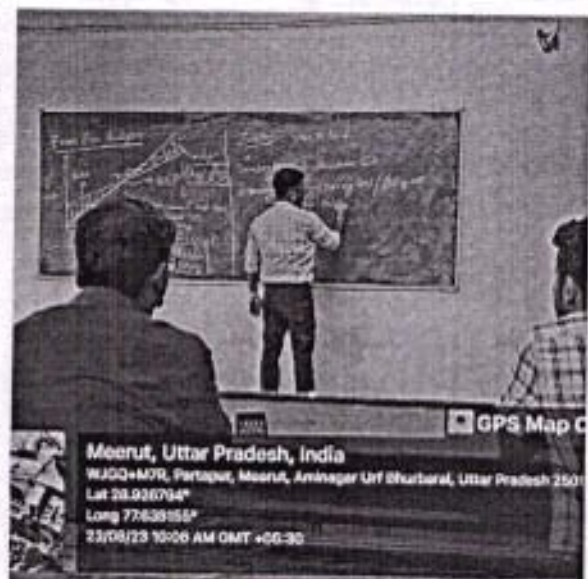


Meerut, Uttar Pradesh, India

GPS Map Camera



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Nagendra





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FACULTY LECTURE SERIES

"OZONE DEPLETION: A GLOBAL ISSUE"

Date: 3 Aug 2023

Time: 3:30 p.m

Venue: Seminar Hall 107 A- Block

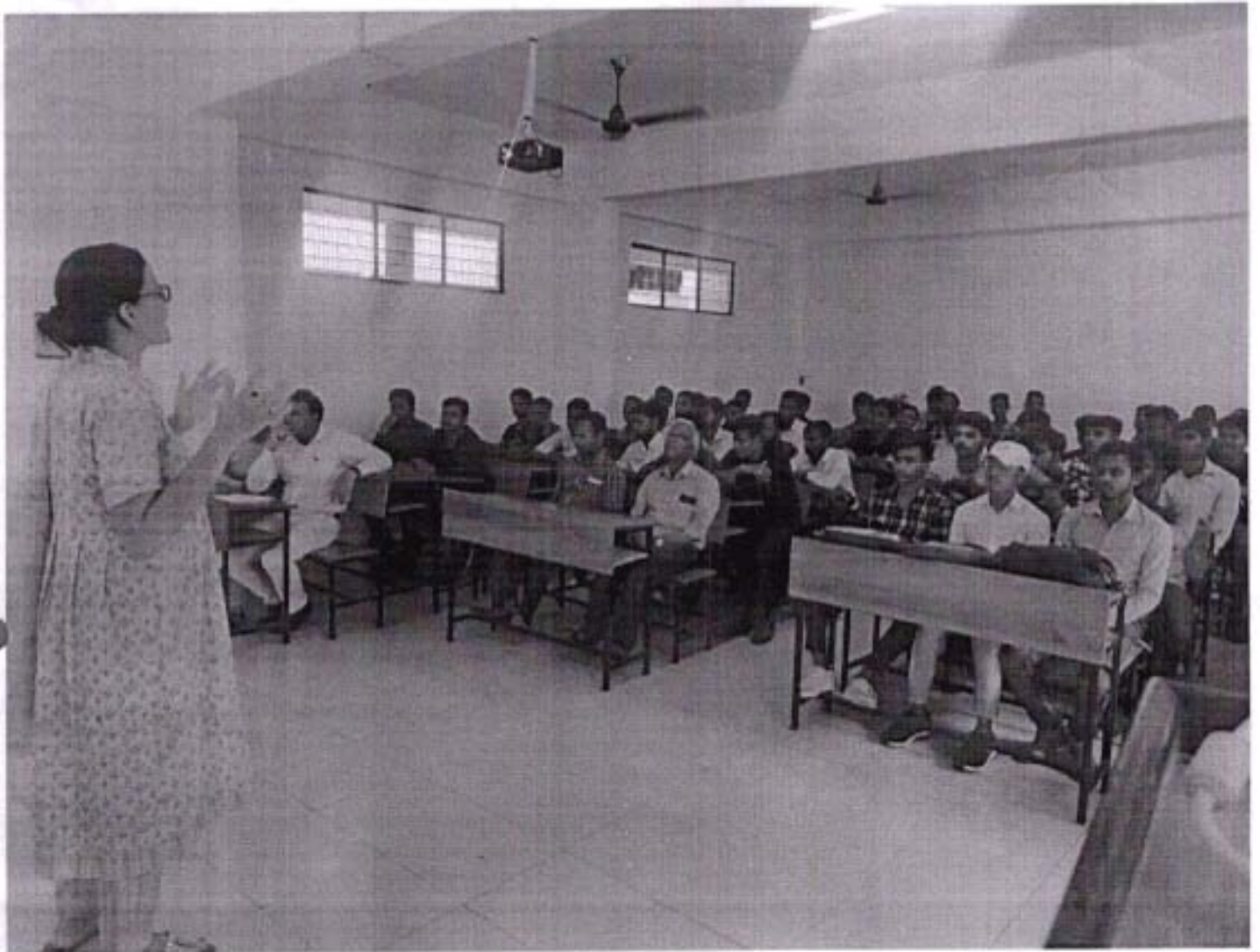


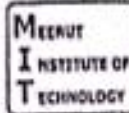
Speaker:

Dr. Hema Negi
Associate Professor
Dept. of Agriculture



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CERTIFICATE OF APPRECIATION

Presented to

Dr. Hema Negi

of Department of Agriculture

*in recognition for the
Faculty Lecture Series
on the topic "Ozone depletion: A
Global Issue"*

held on 03.08.2023

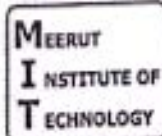
Hema Negi

(Department HOD)

[Signature]

(Director)





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FACULTY LECTURE SERIES

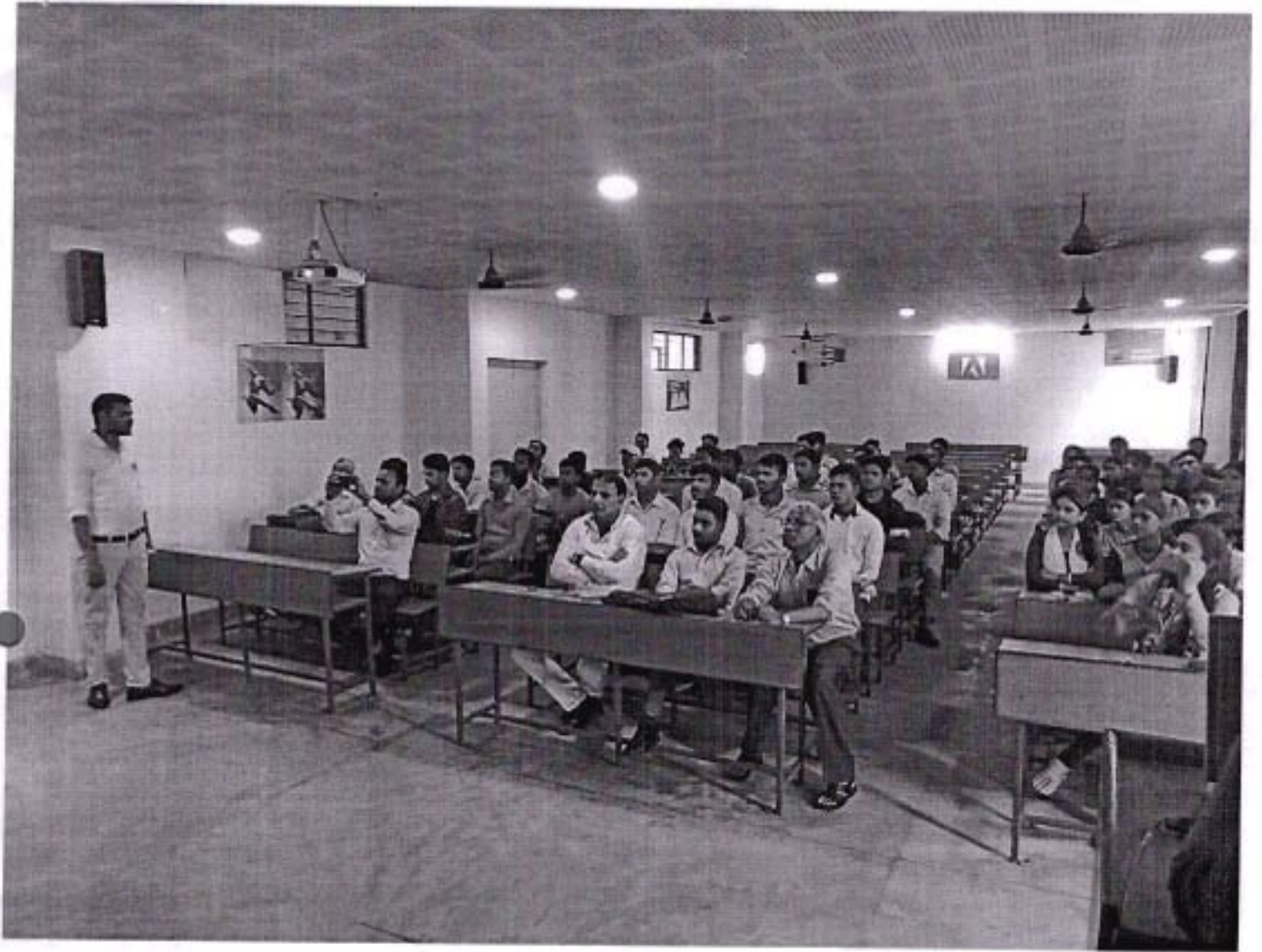
"MORPHOLOGY AND NUTRITIONAL ASPECT OF MUSHROOM"

Date: 10 Aug 2023
Time: 3:30 P.M.
Venue: Seminar Hall 107 A- Block



Speaker:
Dr. Jay Prakash Kannaujia
Assistant Professor
Dept. of Agriculture





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| B. Sc. Agriculture, B. Sc. (Hons.) Chemistry | B. Voc.

CERTIFICATE OF APPRECIATION

Presented to

Dr. J. P. Kannaujia

of Department of Agriculture

in recognition for the
Faculty lecture series on the
topic "Morphology and Nutritional
aspect of Mushroom"

held on 10.08.2023

J. P. Kannaujia
(Department HOD)

[Signature]
(Director)

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FACULTY LECTURE SERIES

"INTEGRATED NUTRIENT MANAGEMENT"

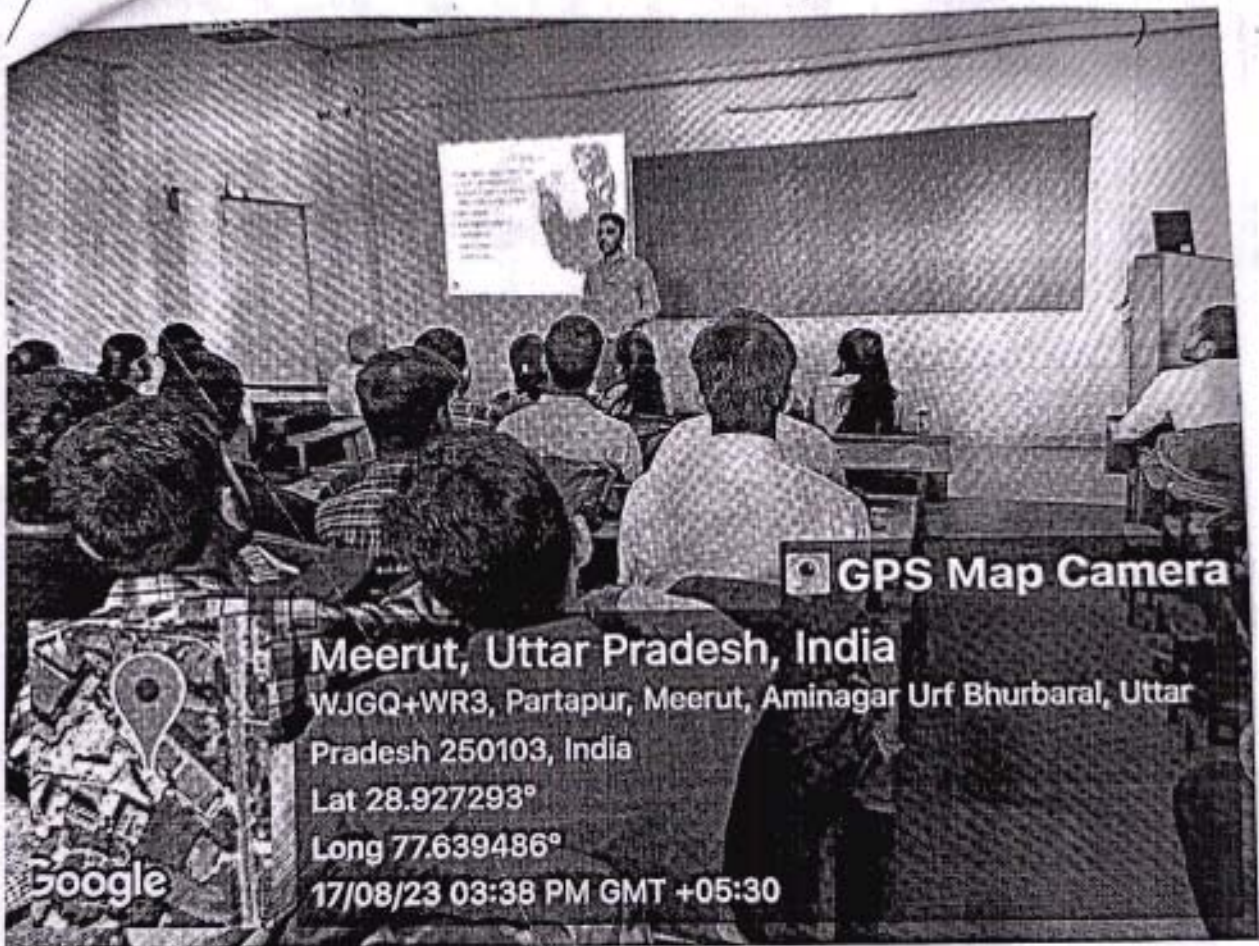
Date: 17 Aug 2023
Time: 3:30 P.M.
Venue: Seminar Hall 107 A- Block



Speaker:
Dr. Vipin Kumar
Assistant Professor
Dept. of Agriculture



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GPS Map Camera

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A

REPORT OF

ONE DAY WORKSHOP

ON

“Excel Training

for

Non-Technical Staff”

DATE

20/12/2022

Submitted By:

Ayush Singhal
Assistant Professor & Training and
Placement Coordinator,
(Department of CSE, MIT, Meerut)



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT
NOTICE

Date: December 16, 2022

Subject: One-Day Excel Training Workshop for Non-Technical Staff

Dear Non-Technical Staff,

We are pleased to announce a one-day Excel Training Workshop tailored specifically for our non-technical staff. This workshop aims to enhance your proficiency in Excel, empowering you to leverage its functionalities effectively in your daily tasks. The schedule is mentioned herewith:

Date: December 20, 2022

Venue: Room F-204

Time: First Session: 10:00 AM - 12:30 PM / **Second Session:** 02:00 PM - 04:00 PM

The workshop will cover fundamental Excel skills, including data entry, basic formulas, formatting, and data analysis techniques. Whether you're a beginner or looking to refine your existing skills, this workshop will provide valuable insights and hands-on practice to boost your Excel proficiency.

Nominated Members:

1. Mr. Mahesh Chand
2. Mr. Dinesh Kumar Gupta
3. Mr. Sandesh Kumar Verma
4. Mr. Akhilesh Sharma
5. Mr. Adesh Kumar

Please ensure your attendance and punctuality for both sessions. Kindly bring your laptops equipped with Excel installed for practical exercises. For any inquiries or concerns, please contact Mr. Ayush Singhal at ayush.singhal@mitmeerut.ac.in / +91-9997962331

We look forward to your active participation and a fruitful learning experience.

Ayush Singhal
Ayush Singhal

(Assistant Professor,
Department of CSE, MIT, Meerut)



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

Report: One Day Workshop MS - Excel Training

Non-Technical Staff

The report outlines a one day Excel training program designed specifically for non-technical and administrative staff in the institute. The program aims to equip participants with practical skills to improve their daily workflows and maximize efficiency in various administrative tasks.

Target Audience: Non-Technical Staff (Lab Assistant)

Learning Objectives:

- Gain confidence in navigating the Excel interface.
- Master essential data entry and formatting techniques.
- Utilize basic formulas and functions for calculations and data manipulation.
- Create effective charts and graphs for data visualization.
- Explore tools for data filtering, sorting, and conditional formatting.
- Automate tasks with simple macros.
- Apply learned skills to specific college-related tasks, such as:
 - Creating student rosters and tracking attendance.
 - Managing budgets and generating reports.
 - Analysing admissions data and trends.
 - Scheduling resources and appointments.
 - Preparing invoices and expense reports.

Training Agenda:

Morning Session: (10:00 AM – 12:30 PM)

- **Introduction to Excel:** Interface overview, navigation basics, file management.
- **Data Entry and Formatting:** Entering data, cell types, formatting cells and ranges.
- **Formulas and Functions:** Introduction to common formulas and functions for calculations, including SUM, AVERAGE, COUNT, VLOOKUP, etc.

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- **Creating Charts and Graphs:** Choosing appropriate chart types, customizing charts for clarity and presentation.
- **Hands-on Exercises:** Apply learned skills to practical college-related scenarios.



Afternoon Session: (02:00 PM – 04:00 PM)

- **Data Filtering and Sorting:** Filtering data based on criteria, sorting data for analysis.
- **Conditional Formatting:** Highlighting data based on rules and conditions.
- **Advanced Topics:** Introduction to additional features relevant to specific college needs (e.g., PivotTables, data validation).
- **Q&A and Wrap-up:** Address remaining questions and review key takeaways.

Training Methodology:

- **Interactive and hands-on approach:** Participants actively engage in exercises and practice applying learned skills.
- **Clear and concise instruction:** Break down complex concepts into easy-to-understand steps.
- **Encouragement and support:** Create a positive learning environment where participants feel comfortable asking questions.

Benefits of Training:

- **Increased efficiency and productivity:** Automate tasks, perform calculations faster, and generate reports with ease.
- **Improved data management:** Organize and analyse data effectively for informed decision-making.



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- **Enhanced communication and collaboration:** Create clear and visually appealing presentations and reports.
- **Reduced frustration and increased job satisfaction:** Build confidence and competence in using Excel.

Conclusion:

Investing in Excel training for non-technical and administrative staff can yield significant benefits for colleges by improving efficiency, streamlining workflows, and empowering staff to be more data-driven. This one-day program provides a practical foundation for staff to excel in their daily tasks and contribute more effectively to the college's success.

The participants that are part of the workshop are mentioned below: -

S. No.	Participant Name	Department
1.	Mr. Mahesh Chand	Lab Technician
2.	Mr. Dinesh Kumar Gupta	Lab Technician
3.	Mr. Sandesh Kumar Verma	Lab Technician
4.	Mr. Akhilesh Sharma	Lab Technician
5.	Mr. Adesh Kumar	Lab Technician

Ayush 28/12/22

Ayush Singhal
Assistant Professor & Training and
Placement Coordinator,
(Department of CSE, MIT, Meerut)

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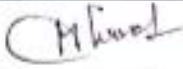
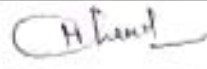
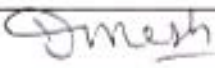
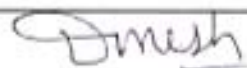



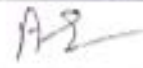



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

ATTENDANCE SHEET

ONE DAY WORKSHOP ON "EXCEL TRAINING" FOR NON-TECHNICAL STAFF

December 20, 2022

S.No.	Participant Name	Signature (Morning)	Signature (Evening)
1.	Mr. Mahesh Chand		
2.	Mr. Dinesh Kumar Gupta		
3.	Mr. Sandesh Kumar Verma		
4.	Mr. Akhilesh Sharma		
5.	Mr. Adesh Kumar	Adesh Kumar	Adesh Kumar


28/12/23





A

REPORT OF

ONE DAY WORKSHOP

ON

“MS-Word Basics”

for

Administrative Staff”

DATE

16/02/2023

Submitted By:

Ayush Singhal
Assistant Professor & Training and
Placement Coordinator,
(Department of CSE, MIT, Meerut)



**MEERUT INSTITUTE OF TECHNOLOGY, MEERUT
NOTICE**

Date: February 13, 2023

One-Day Workshop on MS Word Basics for Administrative Staff

Dear Administrative Staff,

We are pleased to announce a one-day workshop on MS Word Basics tailored specifically for administrative staff. The workshop aims to enhance your proficiency in using Microsoft Word, a fundamental tool in administrative tasks. The workshop details are mentioned below:

Date: February 16, 2023

Venue: Room F-204

Time: 10:00 AM - 1:30 PM

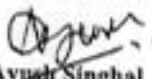
Agenda:

- Introduction to Microsoft Word
- Basic Formatting Techniques
- Creating and Editing Documents
- Working with Tables and Graphics

Nominated Members:

1. Mr. Shyam Veer Singh
2. Mr. Santosh Prasad
3. Ms. Sonal Ahlawat
4. Mr. Satish Saxena
5. Mr. Chetan Kumar
6. Mr. Karan Singh
7. Mr. Saurabh Mittal

Please be punctual and come prepared to actively participate in this informative session. We believe that mastering MS Word will significantly contribute to your efficiency in performing administrative tasks.


Ayush Singhal 13/feb/23
Assistant Professor
Department of CSE, MIT, Meerut
ayush.singhal@mitmeerut.ac.in
+91-9997962331



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT
Report: One Day Workshop MS – Word Basics Training
Administrative Staff

Workshop Overview:

The one-day (16/02/2023) Microsoft Word workshop aimed to provide participants with comprehensive training on utilizing the various features and functionalities of Microsoft Word. The workshop covered fundamental concepts such as document creation, formatting, editing, collaboration, and advanced techniques to enhance productivity.

Workshop Agenda:

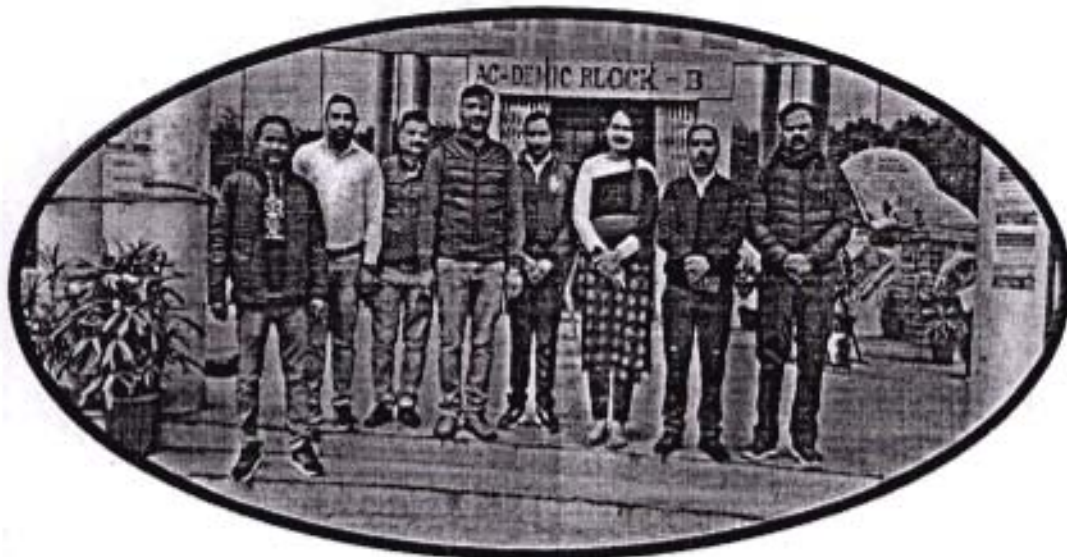
1. Introduction to Microsoft Word
2. Document Creation and Formatting
3. Working with Styles and Templates
4. Collaboration Tools (Track Changes, Comments)
5. Advanced Formatting Techniques
6. Tips for Efficiency and Productivity
7. Q&A Session

Workshop Highlights:

- **Hands-On Learning:** Participants actively engaged in hands-on activities and practical exercises to reinforce learning objectives.
- **Interactive Sessions:** Interactive sessions encouraged participation and facilitated peer learning.
- **Expert Guidance:** Experienced facilitators provided expert guidance and personalized assistance to address participants' queries.
- **Comprehensive Content:** The workshop covered a wide range of topics, catering to both beginner and intermediate users.



- **Real-World Applications:** Practical examples and case studies demonstrated how Microsoft Word can be applied in real-world scenarios, enhancing relevance and applicability.



Pros of Microsoft Word:

1. **User-Friendly Interface:** Microsoft Word offers an intuitive interface, making it accessible for users of all skill levels.
2. **Rich Feature Set:** It provides a plethora of features for document creation, formatting, collaboration, and automation, catering to diverse user needs.
3. **Compatibility:** Microsoft Word ensures compatibility with various file formats, enabling seamless sharing and collaboration across different platforms.
4. **Integration:** Integration with other Microsoft Office Suite applications enhances workflow efficiency and productivity.
5. **Versatility:** From basic document creation to advanced formatting and automation, Microsoft Word offers versatility to accommodate various document requirements.

Cons of Microsoft Word:

1. **Cost:** Microsoft Word is a part of the Microsoft Office Suite, which requires a paid subscription, making it a cost factor for some users.



2. **Complexity:** Despite its user-friendly interface, certain advanced features may be complex for novice users to grasp initially.
3. **Version Compatibility Issues:** Compatibility issues may arise when collaborating on documents across different versions of Microsoft Word.
4. **Limited Collaboration Features:** While Microsoft Word offers collaboration tools, they may not be as robust as dedicated collaborative platforms for extensive team collaboration.
5. **Dependency on Microsoft Ecosystem:** Users heavily invested in the Microsoft ecosystem may find it challenging to seamlessly integrate Microsoft Word with non-Microsoft applications.

Conclusion:

The one-day Microsoft Word workshop provided participants with valuable insights and practical skills to leverage the full potential of Microsoft Word for document creation, formatting, collaboration, and productivity enhancement. Despite certain limitations, Microsoft Word remains a widely used and indispensable tool in various professional and academic settings.

Acknowledgments:

We extend our gratitude to all participants for their active participation and valuable contributions to the workshop.

The participants that are part of the workshop are mentioned below: -

S. No.	Participant Name	Department
1.	Mr. Shyam Veer Singh	Administrative Staff
2.	Mr. Santosh Prasad	Administrative Staff
3.	Ms. Sonal Ahlawat	Administrative Staff
4.	Mr. Satish Saxena	Administrative Staff
5.	Mr. Chetan Kumar	Administrative Staff
6.	Mr. Karan Singh	Administrative Staff
7.	Mr. Saurabh Mittal	Administrative Staff

Deputy, 21/02/23
Ayush Singhal
 Assistant Professor & Training and
 Placement Coordinator,
 (Department of CSE, MIT, Meerut)



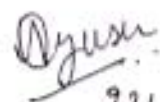
MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

ATTENDANCE SHEET

ONE DAY WORKSHOP ON "MS-Word Basics" for Administrative Staff

February 16, 2023

S.No.	Participant Name	Signature (Morning)	Signature (Evening)
1.	Mr. Shyam Veer Singh		
2.	Mr. Santosh Prasad		
3.	Ms. Sonal Ahlawat		
4.	Mr. Satish Saxena		
5.	Mr. Chetan Kumar		
6.	Mr. Karan Singh		
7.	Mr. Saurabh Mittal		


23/02/23





A

REPORT OF

Professional Development Program

on

Effective Teaching and High Impact Classroom Skills

DATE

29/04/2023

Ayush 3/5/23

Submitted By:

Ayush Singhal
Assistant Professor & Training and
Placement Coordinator,
(Department of CSE, MIT, Meerut)



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT

“Effective Teaching and High Impact Classroom Skills”

The poster is for a seminar at MIT Meerut. At the top, it features the MIT logo and a 'Live Session' starburst. Below the logo, it lists various degree programs offered by the institute. The main title of the session is 'EFFECTIVE TEACHING AND HIGH IMPACT CLASSROOM SKILLS'. The date and time are specified as April 29th, 2023, at 10:00 AM. Two speakers are featured: Dr. Alok Chauhan and Dr. Somendra Shukla, each with a portrait and a name banner below it.

MIT
Meerut Institute of Technology
MAAC Grade "A"

Live Session

B.Tech. | CSE, CSE (Data Science), ECE, ME, CE, AI & ML | B. Pharmacy | D. Pharmacy | BBA | BCA
| B. Com. | B. Com. (Hons.) | B. Sc. Agriculture, B. Sc. (Hons.) Chemistry | B. Voc.

Session on
"EFFECTIVE TEACHING AND HIGH IMPACT CLASSROOM SKILLS"

Date: April 29th, 2023
Time: 10:00 AM

Speakers

Dr. Alok Chauhan

Dr. Somendra Shukla

A seminar on "Effective Teaching and High Impact Classroom Skills" was held on April 29, 2023 at B-Block Seminar Hall. The seminar aimed to delve into the nuances of modern teaching methodologies and strategies to create impactful learning experiences in the classroom. The event witnessed participation from educators, researchers, and academicians from various institutions.

Speakers:

1. **Dr. Alok Chauhan** - Campus Director, MIT, Meerut
2. **Dr. Somendra Shukla** - Director, MIT, Meerut

Seminar Highlights:

Dr. Alok Chauhan commenced the seminar with an enlightening keynote address on the significance of effective teaching methods in fostering student engagement and academic



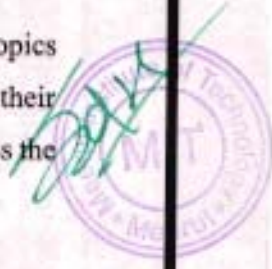
success. He emphasized the role of educators in shaping the future generation and stressed the importance of continuously evolving teaching techniques to cater to diverse learning styles.

Dr. Somendra Shukla delivered a comprehensive strategy focusing on high impact classroom skills. He discussed various pedagogical approaches, including active learning, flipped classroom models, and technology integration, to enhance student participation and comprehension. Dr. Shukla also highlighted the importance of fostering critical thinking and problem-solving abilities among students through interactive teaching methodologies.



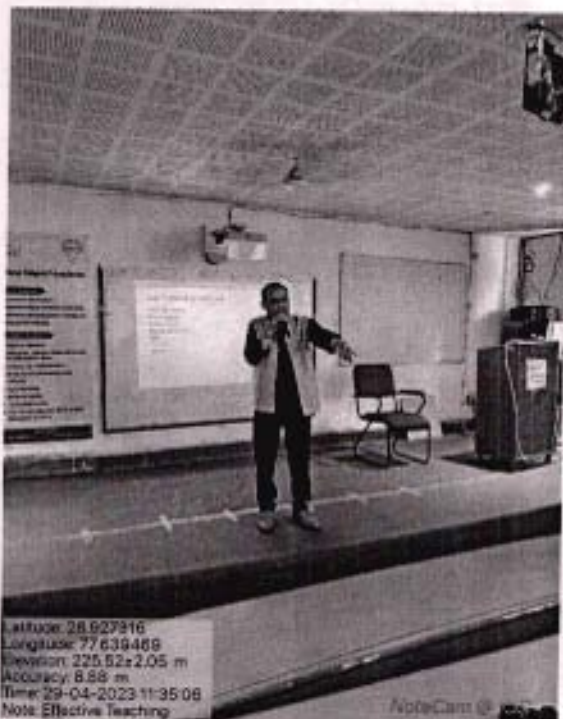
The seminar included interactive sessions where participants (faculty members across all the units (B. TECH/CCS/Pharmacy) had the opportunity to engage with the speakers and share their insights and experiences. Discussions revolved around practical strategies for creating inclusive learning environments, leveraging technology for effective teaching, and promoting student-centred approaches.

A Q&A session provided attendees with the opportunity to seek clarification on specific topics and address queries related to implementing the discussed teaching methodologies in their respective classrooms. The speakers provided valuable insights and practical tips to address the challenges faced by educators in adapting to evolving educational paradigms.



Conclusion: The seminar on "Effective Teaching and High Impact Classroom Skills" provided a platform for educators to gain valuable insights into innovative teaching techniques and pedagogical strategies. The presentations by Dr. Alok Chauhan and Dr. Somendra Shukla were highly informative and inspiring, encouraging attendees to re-evaluate their teaching practices and explore new approaches to enhance student learning outcomes. The event concluded with a vote of thanks delivered by Mr. Ayush Singhal, the faculty coordinator, expressing gratitude to the speakers for sharing their expertise and insights.

Overall, the seminar proved to be a resounding success, fostering collaboration and exchange of ideas among educators committed to delivering quality education and nurturing future leaders.



Ayush.. 3/5/23
Ayush Singhal
Assistant Professor & Training and
Placement Coordinator,
(Department of CSE, MIT, Meerut)



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT (0292)
REPORT ON PROFESSIONAL DEVELOPMENT PROGRAMME

Title	Understanding Soil and Water Relations
Organizer	Department of Civil Engineering
Speaker	Mr. Divyanshu Bhatt
Designation	Assistant Professor
Date	02/08/2023 to 03/08/2023
Venue	F-010
Number of Participants	12

Introduction:

Mr. Divyanshu Bhatt, Assistant Professor at Meerut Institute of Technology, Meerut, delivered a comprehensive presentation on the intricate relationship between soil and water. The presentation, conducted in a classroom setting, aimed to elucidate the fundamental concepts governing soil-water interactions, their significance in various environmental processes, and their implications for agriculture, ecology, and water resource management.

Session Overview:

The presentation commenced with an overview of soil and water as critical components of the Earth's ecosystem, highlighting their roles in supporting life and sustaining natural processes. Mr. Bhatt adeptly navigated through the intricate dynamics of soil-water relations, employing visual aids, diagrams, and real-life examples to elucidate complex concepts.

Key Concepts Explored:

1. Soil Composition and Structure:

Mr. Bhatt delved into the composition and structure of soil, emphasizing its heterogeneous nature characterized by varying proportions of mineral particles, organic matter, water, and air. He elucidated how soil texture, determined by the relative proportions of sand, silt, and clay particles, influences water retention, infiltration rates, and plant growth.

2. Soil Moisture Regimes:

The presentation elucidated different soil moisture regimes, ranging from saturated to excessively drained soils, each with distinct characteristics and implications for plant growth and water availability. Mr. Bhatt underscored the importance of understanding soil moisture dynamics in agricultural practices, irrigation management, and ecosystem functioning.

3. Water Movement in Soil:



Mr. Bhatt elucidated the mechanisms governing water movement in soil, including infiltration, percolation, and capillary action. Through illustrative diagrams and analogies, he elucidated how soil properties, topography, and land use influence water movement, highlighting their role in groundwater recharge, surface runoff, and soil erosion processes.

4. Soil-Water Retention Characteristics:

The presentation explored the concept of soil-water retention characteristics, depicting the relationship between soil moisture content and soil water potential. Mr. Bhatt emphasized the significance of soil properties, such as porosity and pore size distribution, in determining water retention capacity and plant-available water.

5. Soil-Water Plant Relationships:

Mr. Bhatt elucidated the vital interplay between soil, water, and plants, underscoring how soil moisture availability influences plant growth, nutrient uptake, and crop productivity. He discussed strategies for optimizing soil moisture management in agriculture, including irrigation scheduling, soil amendments, and crop selection.

6. Soil Erosion and Conservation:

The presentation addressed soil erosion as a pressing environmental issue exacerbated by improper land management practices and climate change. Mr. Bhatt outlined erosion control measures, such as contour ploughing, terracing, and cover cropping, emphasizing their role in mitigating soil loss and preserving soil fertility.

7. Interactive Learning Experience:

Mr. Bhatt fostered an interactive learning environment, encouraging audience participation through discussions, quizzes, and hands-on activities. He leveraged multimedia resources, including videos and interactive simulations, to enhance comprehension and engagement among participants.

8. Real-Life Applications:

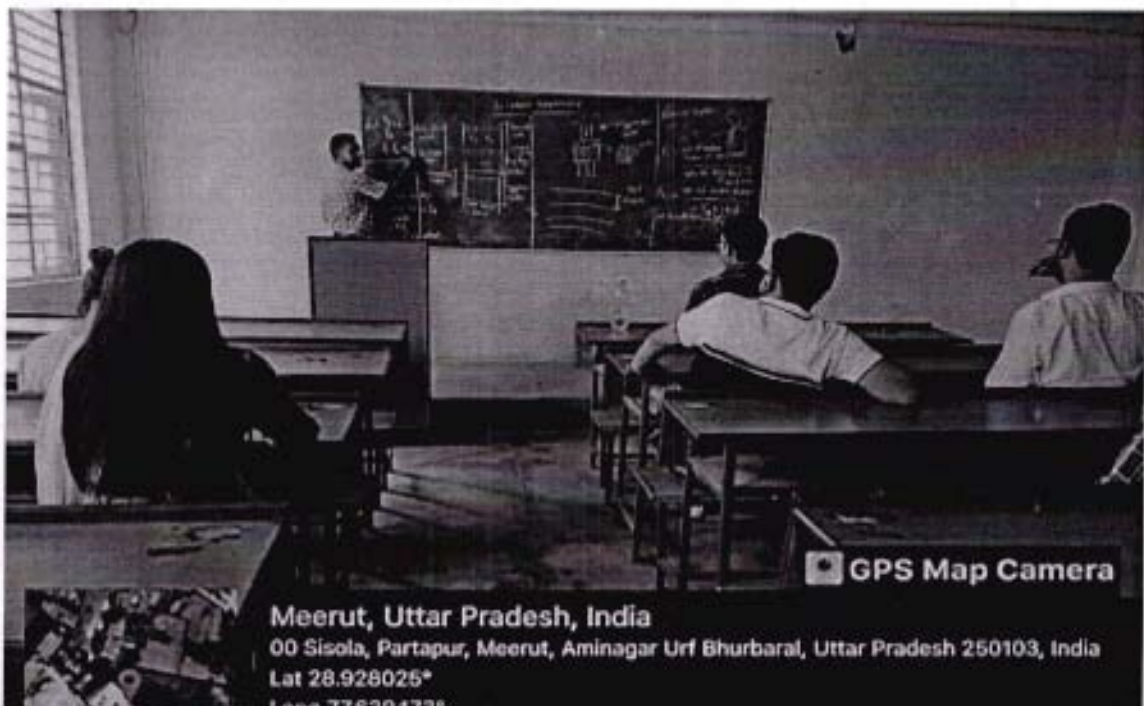
Throughout the presentation, Mr. Bhatt illustrated the practical relevance of soil-water relations across diverse contexts, from agriculture and forestry to ecosystem restoration and urban planning. He showcased real-life case studies and success stories exemplifying sustainable soil and water management practices adopted globally.

Conclusion:

In conclusion, Mr. Divyanshu Bhatt's classroom board presentation on soil and water relations provided a comprehensive overview of the intricate dynamics shaping Earth's terrestrial ecosystems. Through his adept teaching methodology, he succeeded in demystifying complex concepts, fostering a deeper understanding of the vital interconnections between soil, water, and life.

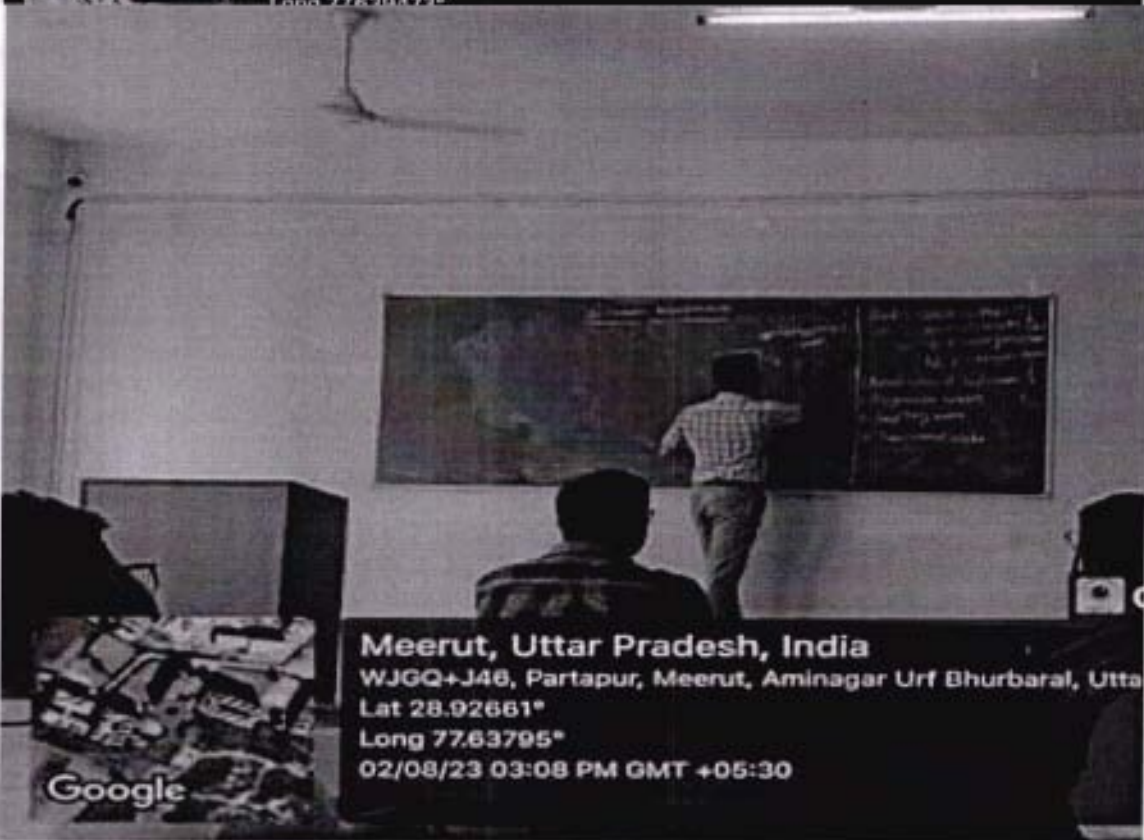
The presentation not only enriched participants' knowledge but also inspired them to advocate for sustainable soil and water management practices in their respective fields. Mr. Bhatt's expertise, coupled with his passion for environmental education, made the session a truly enriching and enlightening experience for all attendees.





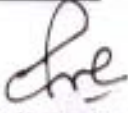
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HOD 
Department of Civil Engineering



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT (0292)
ATTENDANCE FOR PROFESSIONAL DEVELOPMENT PROGRAMME

S.N.	NAME OF ATTENDEE	DATE		SIGN
		02/08/2023	03/08/2023	
1.	Mr. Ravi Ranjan Kumar	P	P	<i>Ravi</i>
2.	Ms. Ruchi Mittal	P	P	<i>Ruchi</i>
3.	Mr. Dheeraj Kumar Pandey	P	P	<i>Dheeraj</i>
4.	Mr. Nagendra Kumar	P	P	<i>Nagendra</i>
5.	Mr. Gaurav Kumar	P	P	<i>Gaurav</i>
6.	Mr. Rahul Kumar	P	P	<i>Rahul</i>
7.	Mr. Pankaj Kumar	P	P	<i>Pankaj</i>
8.	Ms. Anjali Raw	P	P	<i>Anjali R.</i>
9.	Mr. Ashish Tripathi	P	P	<i>Ashish</i>
10.	Dr. Tanmoy Deb	P	—	<i>Tanmoy</i>
11.	Ms. Anamika Sinha	—	P	<i>Anamika Sinha</i>
12.	Ms. Anuradha Bharti	—	P	<i>Anuradha</i>

Ravi
HOD

Department of Civil Engineering



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT (0292)
REPORT ON PROFESSIONAL DEVELOPMENT PROGRAMME

Title	Analysis of Static Indeterminacy of Structure
Organizer	Department of civil Engineering
Speaker	Mr. Dheeraj Kumar Pandey
Designation	Assistant Professor
Date	09/08/2023 to 10/08/2023
Venue	F-010
Number of Participants	12

Introduction:

The analysis of static indeterminacy is a crucial aspect of structural engineering, enabling engineers to understand the behavior and stability of various types of structures. This report provides an in-depth analysis of static indeterminacy in different types of structures, including beams, frames, trusses, and arches, highlighting key concepts, methodologies, and practical implications.

Key Concepts:

1.Static Indeterminacy: Static indeterminacy refers to the condition where the number of unknown reactions and internal forces in a structure exceeds the number of available equilibrium equations. It arises when a structure has redundant supports or members.

2.Degrees of Freedom: The degrees of freedom of a structure represent the number of independent displacements it can undergo without violating equilibrium. Statically determinate structures have a finite number of degrees of freedom, while indeterminate structures have excess degrees of freedom.

3.Methods of Analysis: Various methods, including the force method (method of consistent deformations), displacement method (slope-deflection method, moment distribution method), and energy methods, are used to analyze static indeterminate structures.

4.Virtual Work Principle: The virtual work principle states that the virtual work done by the applied loads and the internal forces due to virtual displacements is zero for a structure in equilibrium. It provides a powerful tool for analyzing indeterminate structures.

5.Flexibility and Stiffness Methods: The flexibility method analyzes structures based on displacements, while the stiffness method focuses on forces and moments. Both methods are widely used for solving indeterminate structural systems.

Analysis of Different Structures:

1.Beams: Beams can exhibit static indeterminacy when subjected to multiple loads or supported by more supports than necessary for static equilibrium.



- Methods such as the moment distribution method or the force method are commonly used to analyze indeterminate beams.

2. Frames:

- Frames consist of interconnected members forming a rigid structure. They often exhibit static indeterminacy due to redundant members or supports.

- Analysis methods such as the slope-deflection method or the moment distribution method are employed to solve indeterminate frame structures.

3. Trusses:

- Trusses are composed of slender members joined together at their ends to form a stable structure. Indeterminacy in trusses can arise from redundant members or supports.

- The method of joints or the method of sections is typically used to analyze indeterminate truss structures.

4. Arches:

- Arches are curved structural elements that carry loads primarily by axial compression. Indeterminacy in arches can arise from their complex geometry and support conditions.

- Analysis of indeterminate arches often involves iterative procedures or numerical techniques to determine internal forces and reactions.

Practical Implications:

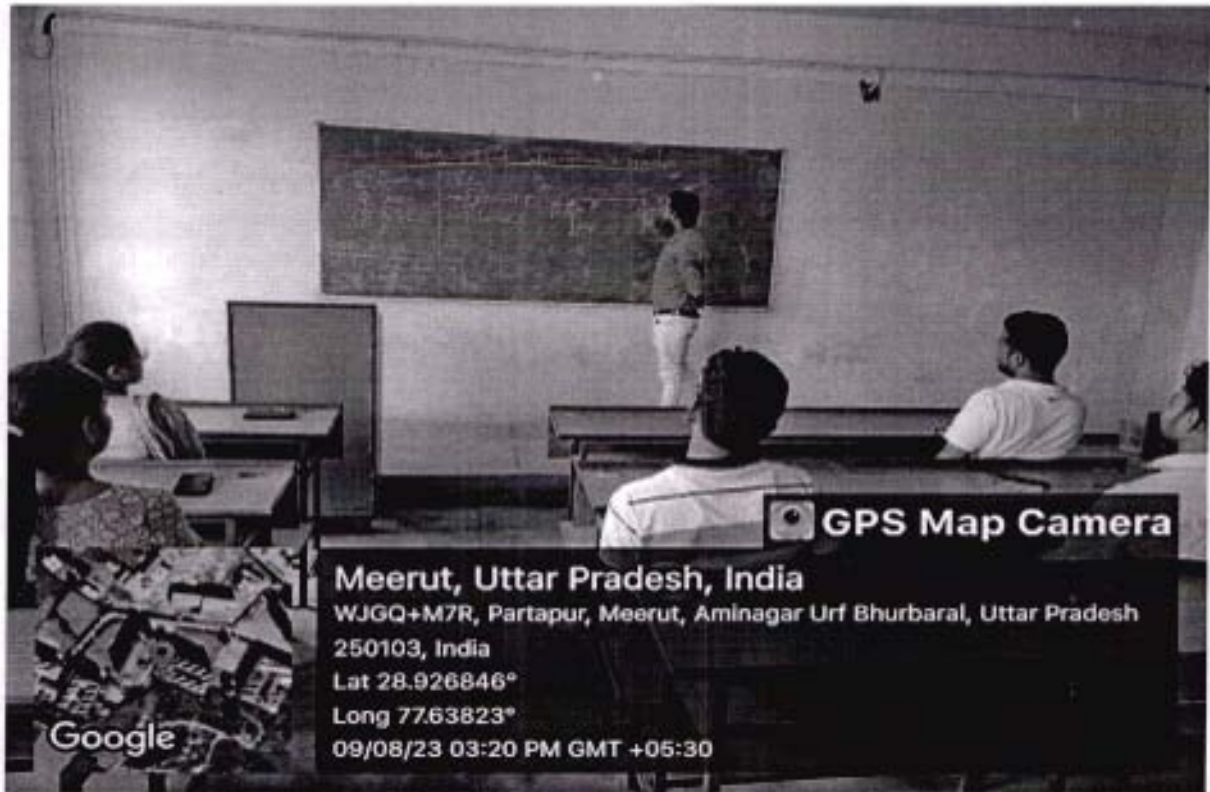
Understanding the static indeterminacy of different structures is essential for designing safe, efficient, and cost-effective structural systems. By analyzing the static indeterminacy, engineers can optimize structural designs, identify critical load paths, and ensure structural stability under various loading conditions.

Conclusion:

The analysis of static indeterminacy plays a crucial role in structural engineering, enabling engineers to understand and design complex structural systems effectively. By applying appropriate analysis methods, engineers can address static indeterminacy in various types of structures, ensuring their safety, stability, and performance.

Further research and development efforts are warranted to explore advanced analysis techniques for solving complex indeterminate structures. Additionally, practical training and hands-on experience in analyzing indeterminate structures can enhance the skills and expertise of structural engineers in tackling real-world engineering challenges.

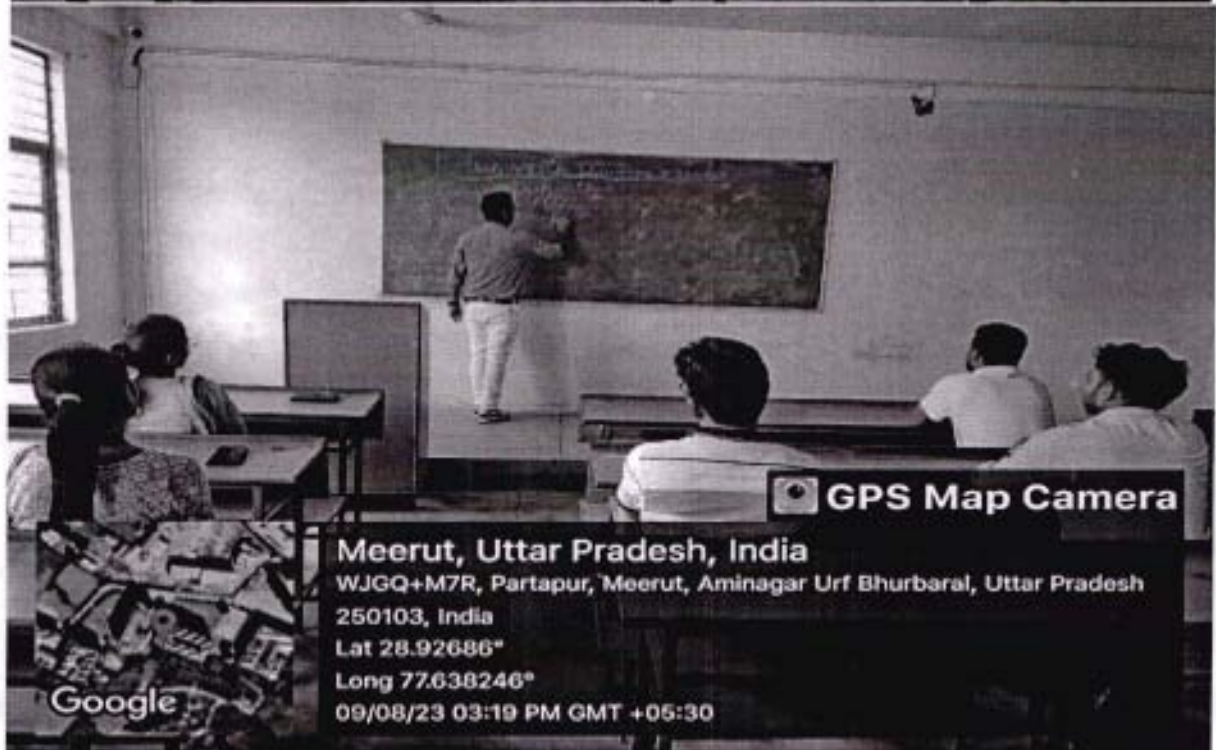




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GPS Map Camera

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HOD 
Department of Civil Engineering



**MEERUT INSTITUTE OF TECHNOLOGY, MEERUT (0292)
ATTENDANCE FOR PROFESSIONAL DEVELOPMENT PROGRAMME**

S.N.	NAME OF ATTENDEE	DATE		SIGN
		09/08/2023	10/08/2023	
1.	Mr. Ravi Ranjan Kumar	P	P	<i>Rre</i>
2.	Ms. Ruchi Mittal	P	P	<i>Ruchi</i>
3.	Mr. Divyanshu Bhatt	P	P	<i>Divyanshu</i>
4.	Mr. Nagendra Kumar	P	P	<i>Nagendra</i>
5.	Mr. Gaurav Kumar	P	P	<i>Gaurav</i>
6.	Mr. Rahul Kumar	P	P	<i>Rahul</i>
7.	Mr. Pankaj Kumar	P	P	<i>Pankaj</i>
8.	Ms. Anjali Raw	P	P	<i>Anjali</i>
9.	Mr. Ashish Tripathi	P	P	<i>Ashish</i>
10.	Dr. Tanmoy Deb	—	P	<i>Tanmoy</i>
11.	Ms. Anamika Sinha	P	—	<i>Anamika Sinha</i>
12.	Ms. Anuradha Bharti	P	—	<i>Anuradha</i>

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Department of Civil Engineering



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT (0292)

REPORT ON A KNOWLEDGE BASED SYMPOSIUM PROGRAMME

Title	"India Emerging as Biodiversity Champion"
Organizer	Department of Civil Engineering
Speaker	Mr. Divyanshu Bhatt
Designation	Assistant Professor
Date	12/08/2023 to 13/08/2023
Venue	F-204
Number of Participants	13

Introduction: Mr. Divyanshu Bhatt (Asst. Professor), Department of Civil Engineering, delivered a session as part of the ongoing faculty lecture series on August 13, 2023. He emphasized the need of community participation in biodiversity programs and foresees a future in which "India has the incredible potential to become a true biodiversity champion!" With 17% of the world's population and an equal share of biodiversity hotspots, India is well positioned to lead the way in protecting our valuable natural resources. Some ongoing Government initiatives i.e. 'Green Growth', 'sustainable activities' to maintain our unique ecosystems and foster coexistence are emphasized. So we may all work together to ensure the future of our planet for future generations.

Lecture Topics: Green Growth for a Greener Tomorrow: "India Emerging as a Biodiversity Champion":

1. **Introduction to Biodiversity:** Participants were introduced with term Biodiversity i.e. the totality and variety of our biological resources is crucial to the survival of the world. The United Nations Biodiversity Conference in Montreal, Canada, made a strong case for the value of our planet's biodiversity. The 2030 commitment, which aims to "stop and reverse" biodiversity loss by protecting 30% of the world's land and 30% of its oceans by 2030, was ratified on December 19, 2022, by delegates from 188 nations. India is in a prime position to lead the world in becoming **biodiversity champions** because it currently has 17% of the world's population and 17% of the world's biodiversity hotspots.



2. **Significance:** Codependence, cohabitation, and interaction. Biodiversity, the sum and variety of our biological wealth, is crucial to the future of this world. The diversity of species on earth, sometimes known as the "web of life," maintains the harmony of ecosystems and allows for the coexistence of people. They engage with the surroundings to carry out a variety of tasks.

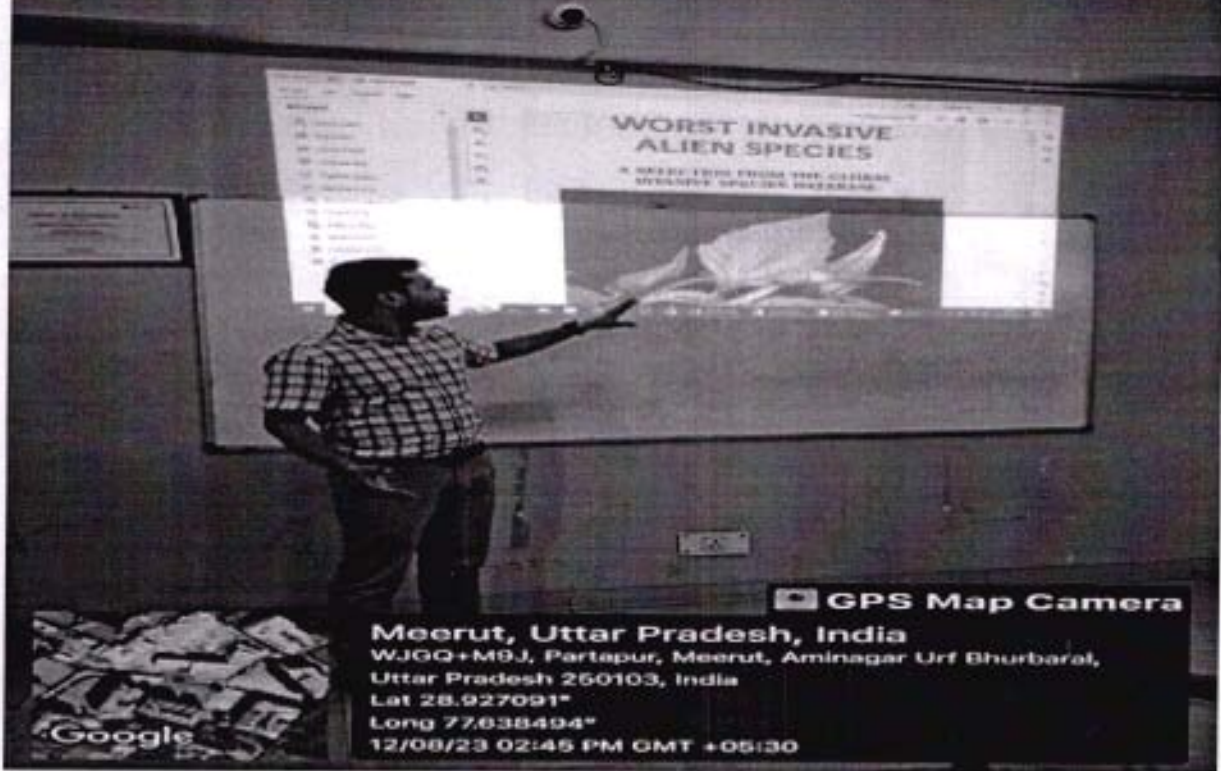
3. **Ecosystem services:** Among the many living things that provide these services, plants and animals are the most well-known. Giving people access to food, energy, fiber, shelter, building materials, air and water purification, climate stabilization, pollination of agricultural plants, and a reduction in the effects of flood, drought, high heat, and wind.

4. **India's National Green Mission:** Participant were introduced with The National Mission for a Green India seeks to restore and conserve existing wooded lands while increasing forest cover on damaged regions.

- The Green Credit Program's mission is to "incentivize ecologically responsible and proactive measures by businesses, individuals, and municipal organizations."
- The remarkable significance of mangroves and coastal ecosystems in preventing climate change makes The Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) particularly noteworthy.
- For our agriculture to continue, **PM-PRANAM**, the Prime Minister Programmed for Restoration, Awareness, Nourishment and Amelioration of Mother Earth, is essential. It aims to reduce inputs of synthetic fertilizers and pesticides.
- The **Amrit Dharohar** project specifically refers to our biological variety and aims to "promote optimal use of wetlands, and enhance biodiversity, carbon stock, eco-tourism potential, and income production for local populations."
- **Amrit Dharohar**, with its emphasis on sustainability through balancing competing needs, will promote aquatic biodiversity and ecosystem services if it is applied in letter and spirit.

Conclusion: For making India as biodiversity champion the local and nomadic communities based ideas will be implemented must be included in these efforts. The implementation strategies should incorporate the customs and knowledge of these communities. If these program are implemented based on the most recent scientific and ecological understanding, they all have the potential to significantly improve the state of our country's biodiversity. So, each program should allocate a sizable amount of cash to education and research in order to evaluate and expand knowledge of India's biological endowment.





HOD *[Signature]*
Department of Civil Engineering



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT (0292)
ATTENDANCE FOR KNOWLEDGE BASED SYMPOSIUM PROGRAMME

S.N.	NAME OF ATTENDEE	DATE		SIGN
		12/08/2023	13/08/2023	
1.	Mr. Dheeraj Kumar Pandey	P	P	<i>Dheeraj</i>
2.	Mr. Nagendra Kumar	P	P	<i>Nagendra</i>
3.	Mr. Tanmoy Deb	P	—	<i>Tanmoy</i>
4.	Ms. Anamika Sinha	P	—	<i>Anamika Sinha</i>
5.	Ms. Anuradha Bharti	P	P	<i>Anuradha</i>
6.	Mr. Ravi Ranjan Kumar	P	P	<i>Ravi</i>
7.	Ms. Ruchi Mittal	P	P	<i>Ruchi</i>
8.	Mr. Rahul Kumar	P	P	<i>Rahul</i>
9.	Mr. Pankaj Kumar	P	P	<i>Pankaj</i>
10.	Ms. Anjali Raw	P	P	<i>Anjali</i>
11.	Mr. Ashish Tripathi	P	P	<i>Ashish</i>
12.	Mr. Gaurav Kumar	P	P	<i>Gaurav</i>
13.	Ms. Sanjeevani Ranjan	—	P	<i>Sanjeevani</i>

Pre
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Department of Civil Engineering



MEERUT INSTITUTE OF TECHNOLOGY, MEERUT (0292)

REPORT ON A KNOWLEDGE BASED SYMPOSIUM PROGRAMME

Title	"An Experimental Study and Application of Calcite Precipitation Bacteria used in Concrete and Mortar"
Organizer	Department of civil Engineering
Speaker	Mr. Dheeraj Kumar Pandey
Designation	Assistant Professor
Date	26/08/2023 to 27/08/2023
Venue	F-204
Number of Participants	13

Introduction: Mr. Dheeraj Kumar Pandey (Asst. Professor), Department of Civil Engineering, delivered a session as part of the ongoing faculty lecture series on August 26, 2023. He emphasized on used of calcite precipitation bacteria used in concrete and mortar. Calcite precipitation bacteria have emerged as a promising solution for improving the durability and sustainability of concrete and mortar structures. By harnessing the metabolic activity of these bacteria, it is possible to induce the formation of calcite crystals within the concrete matrix, thereby enhancing its strength, impermeability, and resistance to various forms of deterioration. This report presents an experimental study on the utilization of calcite precipitation bacteria in concrete and mortar, along with its potential applications.

Lecture Topics: "An Experimental Study and Application of Calcite Precipitation Bacteria used in Concrete and Mortar".

Objective: The primary objective of this study is to investigate the effectiveness of calcite precipitation bacteria in enhancing the properties of concrete and mortar, including strength, permeability, and durability. Additionally, the report aims to explore practical applications of this technology in construction projects.

Experimental Methodology:

- 1. Selection of Bacterial Strains:** Various strains of calcite precipitation bacteria were selected based on their ability to precipitate calcium carbonate under concrete-like conditions.
- 2. Preparation of Bacterial Solution:** A nutrient-rich solution containing the selected bacterial strains was prepared.
- 3. Mix Design:** Concrete and mortar mixes were designed according to standard specifications, with varying proportions of cement, aggregates, water, and admixtures.
- 4. Incorporation of Bacteria:** The bacterial solution was added to the concrete and mortar mixes at specified dosages.



5. Testing Parameters: The prepared specimens were subjected to a range of tests, including compressive strength, permeability, chloride ion penetration, and resistance to sulfate attack.

6. Microscopic Analysis: Microscopic examination was conducted to observe the distribution of calcite crystals within the concrete matrix.

Results and Discussion:

1. Enhanced Strength: The incorporation of calcite precipitation bacteria led to a significant improvement in compressive strength, attributed to the formation of calcite crystals which acted as reinforcing agents within the matrix.

2. Reduced Permeability: The presence of calcite crystals resulted in a denser microstructure, leading to reduced permeability and enhanced resistance to water ingress.

3. Durability Performance: concrete specimens treated with calcite precipitation bacteria exhibited improved resistance to chloride ion penetration and sulfate attack, indicating enhanced durability.

4. Microstructural Analysis: Microscopic examination confirmed the presence of well-dispersed calcite crystals throughout the concrete matrix, contributing to its mechanical properties and durability.

Applications:

1. Infrastructure Projects: The use of calcite precipitation bacteria can be particularly beneficial in infrastructure projects such as bridges, tunnels, and marine structures, where durability is critical.

2. Repair and Rehabilitation: This technology can also be applied in repair and rehabilitation projects to extend the service life of aging concrete structures.

3. Green Building Initiatives: Incorporating calcite precipitation bacteria aligns with sustainability goals by reducing the environmental impact of concrete production and extending the lifespan of structures.

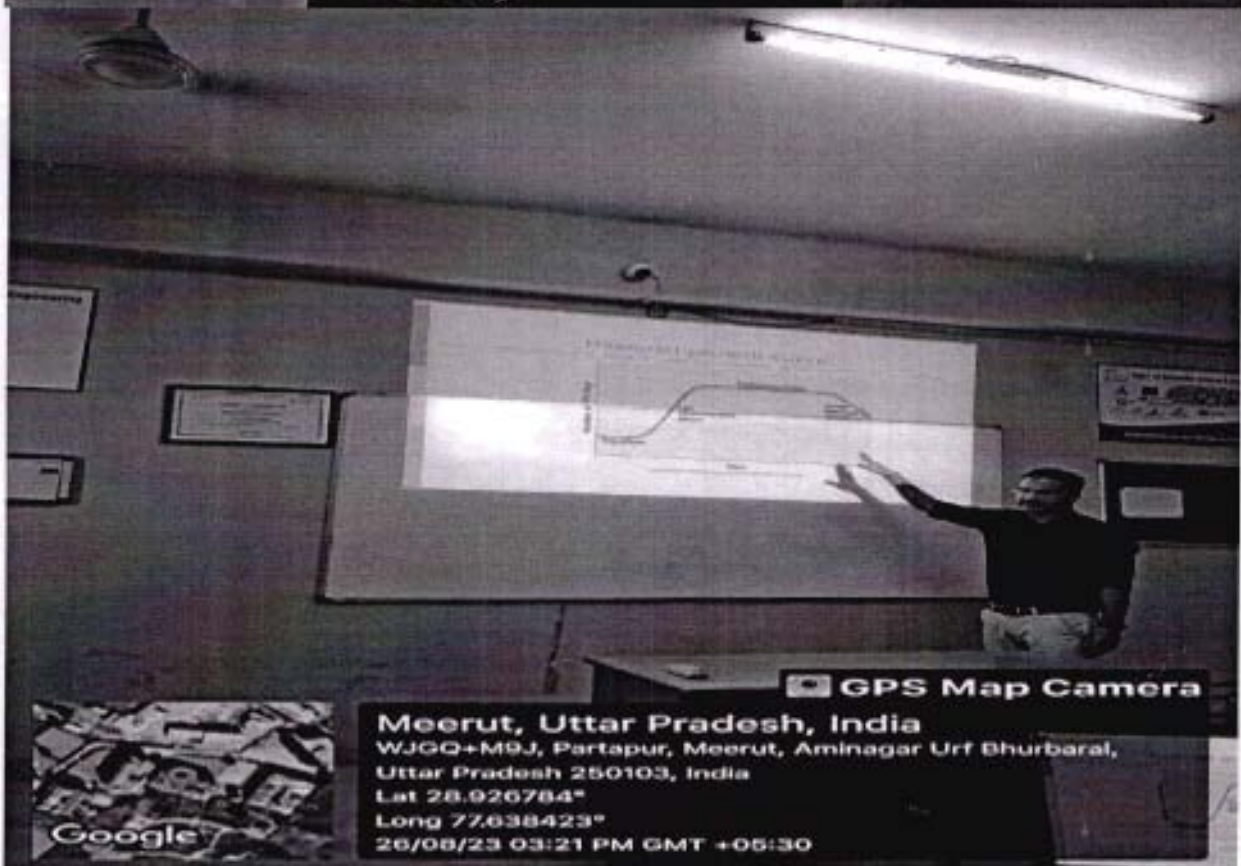
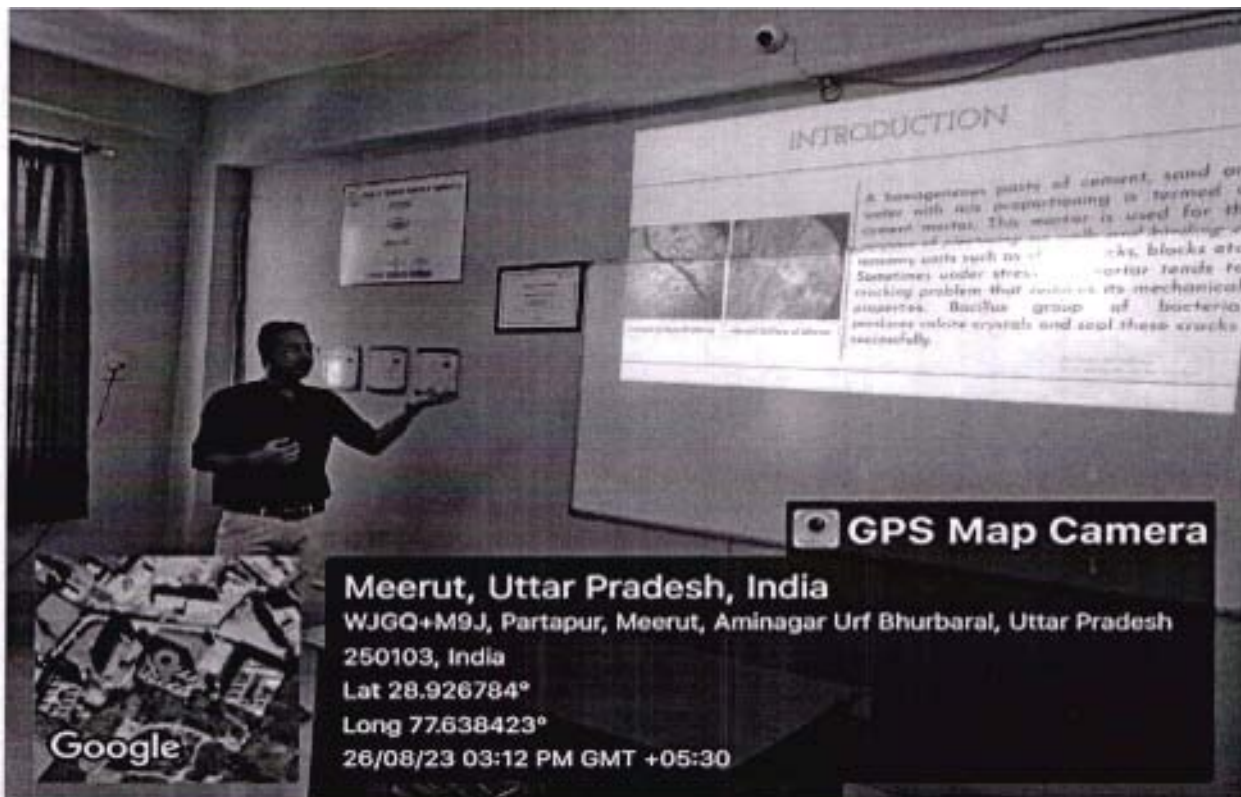
Conclusion: The experimental study demonstrates the potential of calcite precipitation bacteria as a viable solution for enhancing the properties and durability of concrete and mortar. By leveraging the metabolic activities of these bacteria, it is possible to achieve significant improvements in strength, permeability, and resistance to deterioration. The findings of this study underscore the practical applications of this technology in construction projects, contributing to the development of more sustainable and resilient infrastructure.

Further research is recommended to optimize the dosage and application methods of calcite precipitation bacteria for different types of concrete and mortar mixes. Additionally, long-term field studies are warranted to evaluate the performance of structures treated with this technology under real-world conditions. Collaborations between researchers, engineers, and industry stakeholders are essential for the widespread adoption and implementation of calcite precipitation bacteria in construction practice.

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MEERUT INSTITUTE OF TECHNOLOGY, MEERUT (0292)

ATTENDANCE FOR KNOWLEDGE BASED SYMPOSIUM PROGRAMME

S.N.	NAME OF ATTENDEE	DATE		SIGN
		26/08/2023	27/08/2023	
1.	Mr. Divyanshu Bhatt	P	P	<i>Divyanshu</i>
2.	Mr. Nagendra Kumar	P	P	<i>Nagendra</i>
3.	Mr. Tanmoy Deb	P	—	<i>Tanmoy</i>
4.	Ms. Anamika Sinha	P	P	<i>Anamika Sinha</i>
5.	Ms. Anuradha Bharti	—	P	<i>Anuradha</i>
6.	Mr. Ravi Ranjan Kumar	P	P	<i>Ravi</i>
7.	Ms. Ruchi Mittal	P	P	<i>Ruchi</i>
8.	Mr. Rahul Kumar	P	P	<i>Rahul</i>
9.	Mr. Pankaj Kumar	P	P	<i>Pankaj</i>
10.	Ms. Anjali Raw	P	—	<i>Anjali R.</i>
11.	Mr. Ashish Tripathi	P	P	<i>Ashish</i>
12.	Mr. Gaurav Kumar	P	P	<i>Gaurav</i>
13.	Ms. Sanjeevani Ranjan	P	P	<i>Sanjeevani</i>

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