

November 26, 2024

Press Release

**JMI Hosts One week online Faculty Development Program on "Additive Manufacturing for Sustainability and Industry 4.0"**

The Department of Mechanical Engineering, Faculty of Engineering & Technology, Jamia Millia Islamia (JMI), successfully organized a one-week online Faculty Development Program (FDP) on the theme "Additive Manufacturing for Sustainability and Industry 4.0" from November 18 to November 22, 2024. The program was aimed at equipping faculty members and research scholars with cutting-edge knowledge in additive manufacturing, sustainability, and Industry 4.0 trends.

The FDP, funded by JMI, was coordinated by Dr. Tauseef Uddin Siddiqui and co-coordinated by Dr. Mohd Javaid, Associate Professors in the Department of Mechanical Engineering at JMI. A total of 97 applications were received from faculty members and research scholars across India, out of which 75 candidates were selected to participate.

The inaugural session, held in a hybrid mode, was graced by Prof. Mini Shaji Thomas, Faculty of Engineering & Technology, JMI, as the Chief Guest, and Prof. Zulquernain Mallick, Head of the Department of Mechanical Engineering, JMI, as the Guest of Honour. Faculty members, supporting staff and Research scholars of the department also attended the inaugural session.

The program featured 19 technical sessions over five working days, with 18 distinguished speakers from leading academic institutions and industries, including IITs, AIIMS, NITs, Central universities, and Research laboratories etc. Six eminent speakers from JMI, including Prof. Abid Haleem, Prof. Zahid A. Khan, Prof. Arshad Noor Siddiquee, Prof. S.M. Muzakkir, Dr. Lokesh Kumar, and Prof. Veera Gupta, Honorary Director, Malaviya Mission Teacher Training Centre (MMTTC), JMI, also contributed to the sessions.

The FDP encompassed a wide range of topics, including various aspects of additive manufacturing technologies, sustainability, Industry 4.0, and emerging trends. Additionally, a special lecture by Prof. Veera Gupta on the National Education Policy (NEP) highlighted the importance of aligning academic curricula with NEP guidelines to effectively.

The valedictory ceremony, held in hybrid mode, took place on November 22, 2024, commencing at 4:00 PM. Prof. Ranganath M. Singari from the Department of Mechanical Engineering, Delhi Technological University (DTU), served as the Chief Guest. The event was attended by Prof. Mini Shaji Thomas, Dean of the Faculty of Engineering, Prof. Zulquernain Mallick, Head of the Department of Mechanical Engineering, along with internal speakers from JMI and other faculty members. As a gesture of appreciation, mementos were presented to the internal speakers. The ceremony concluded successfully at 5:00 PM.

This FDP served as an excellent platform for knowledge exchange and skill development, highlighting the critical role of additive manufacturing and sustainable practices in advancing Industry 4.0 and solving societal challenges.



- 1. PROF. ZULQARNAIN MALLICK HEAD
- 2. PROF. ABID HALEEM
- 3. PROF. M. EMRAN KHAN
- 4. PROF. ZAHID A KHAN
- 5. PROF. MOHD SUHAIB
- 6. PROF. M.H. KARIMI
- 7. PROF. ABDUR RAHIM
- 8. PROF. ARSHAD H. SIDDIQUEE
- 9. PROF. S. M. MUZAKKIR
- 10. PROF. SABAH KHAN
- 11. PROF. ABHAB FAZAN SHERWANI
- 12. PROF. AMIL KUMAR SHARMA
- 13. PROF. ALI HUSAN
- 14. PROF. TASNEM A KHAN
- 15. PROF. MUHAMMAD ASJAD
- 16. DR. MUHAMMAD JAWAD
- 17. DR. TANSEEF UDDIN SIDDIKI
- 18. DR.
- 19. DR. LOKESH KUMAR
- 20. DR.
- 21. DR. MOHD SHAB

  
**One Week Online Faculty Development Program**  
on  
**"ADDITIVE MANUFACTURING FOR SUSTAINABILITY AND INDUSTRY 4.0"**  
**Date : 18-22 November, 2024**  
Org  
Department of Manufacturing Engineering,  
Faculty of Engineering and Technology,  
Jamia Millia Islamia, Delhi, India











Ramandeep Singh (Presenting)



**Govt. of India**

- DST: Department of Science and Technology
- DBT: Department of Biotechnology
- DHR: Department of Health Research



**Neurosurgery Education and Training School**



Equipments of Neurosurgery, All India Institute of Medical Sciences, New Delhi



Participant avatars and controls:

- AM FDP
- Prof. Abdur Rahi...
- Dr. Rajesh Chou...
- Amir Ashraf
- amit sharma
- Shiv Kumar
- 29 others
- AM FDP

Meeting controls: Mute, Video Off, Chat, Reactions, Raise Hand, More, End Call

10:05 AM | Online FDP on "Additive Manufa...

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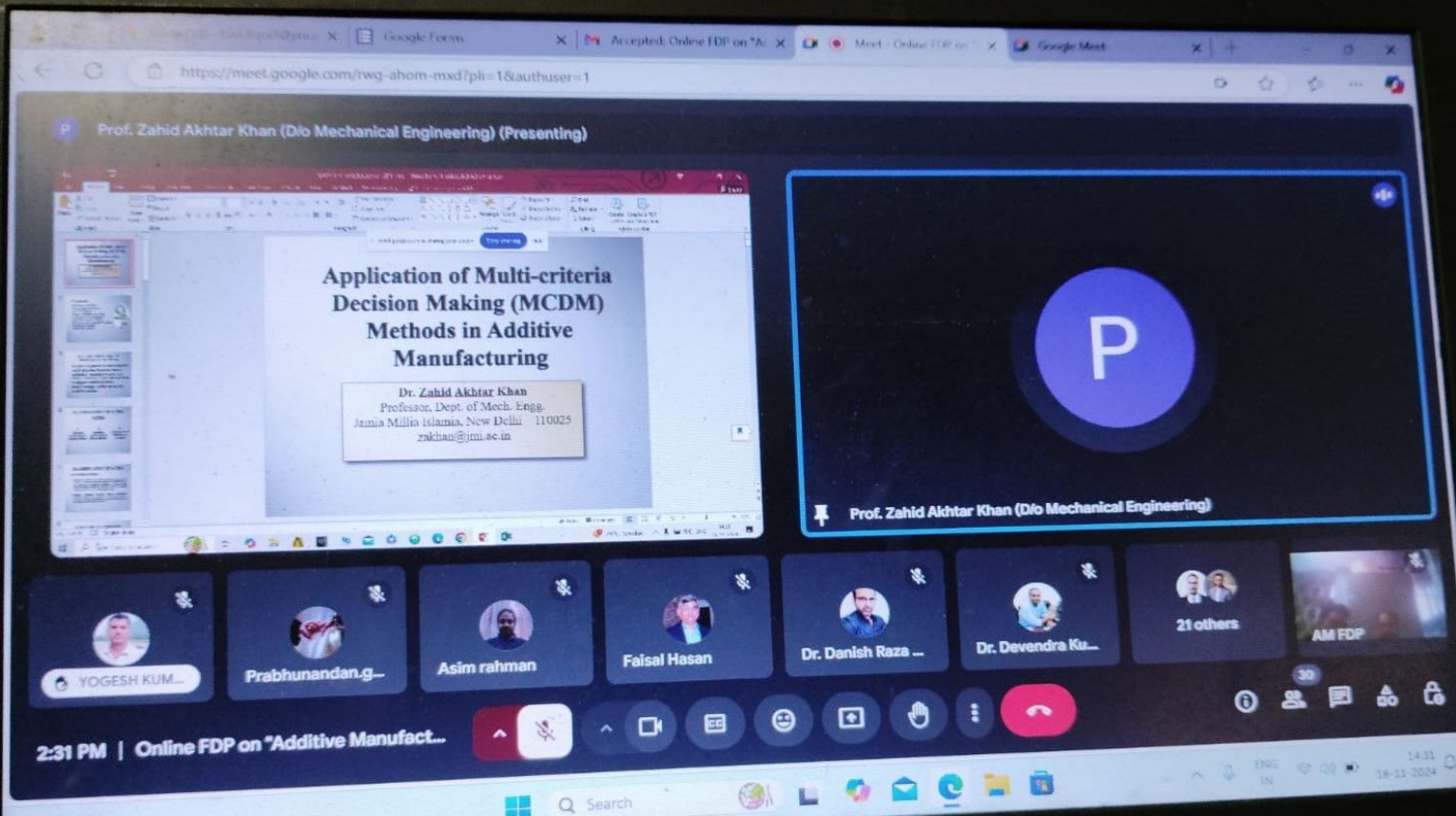
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Prof. Arshad Noor Siddiqui (D/O Mechanical Engineering)

12:46 PM | Online FDP on "Additive Manufac..."

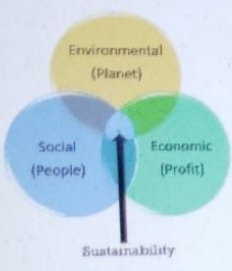
ASUS





Ankush Anand (Presenting)

### What is Sustainability?



A common definition of sustainable development is that of the UN Brundtland Commission:

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

You will also hear about the Triple Bottom Line!

This concept suggests that, in addition to its economic performance, a system or a product must also account for and focus on its environmental and social performance, so as to be truly sustainable.

Another common way of saying this is "people, planet, profit." Sustainability is the intersection of these three concepts.



Meeting controls and participant list:

- Microphone status: "Are you talking? Your mic is off. Click the mic to turn it on."
- Participants: YOGESH KUM..., Shiv, amit sharma, J k Sagar, SATY DEV, 29 others, AM FDP.
- Control icons: Mute, Video, Chat, Reactions, Hand, More, End Call.

Browser tabs: [Inbox \(58\) - tiddiqui3@pric.ac.in](#), [Attendance record - Google Form](#), [Meet - Online FDP on "Addi...](#)

URL: <https://meet.google.com/rwq-abom-nxd?pli=1>

Mukul Shukla FACULTY (Presenting)

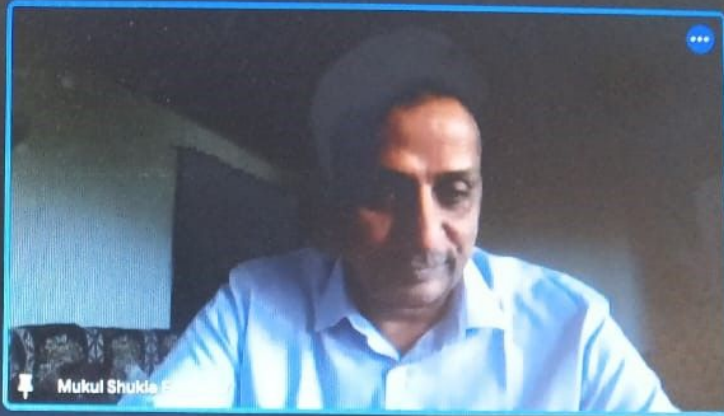
OME JMI New Delhi FDP on "Additive Manufacturing for Sustainability and Industry 4.0"

# Topology Optimization for Lightweight Designs by AM

by

## MUKUL SHUKLA

Professor and Head  
Department of Mechanical Engineering, MNNIT, Allahabad  
Email - [mukulshukla@mnnit.ac.in](mailto:mukulshukla@mnnit.ac.in)  
(Nov 20, 2024)



Mukul Shukla

Participants:

- YOGESH KUMAR
- Ms. LATHIKA PRI...
- Shiv Kumar
- Dr. Rajesh Chou...
- Prabhunandan.g...
- Dr. Irfan Ahmad ...
- 40 others
- AM FDP

11:31 AM | Online FDP on "Additive Manufact..."

System tray: 10% Shukla, Search, Taskbar icons, ENG IN, 11:31 20-11-2024

Browser tabs: Inbox - amfdppmi@qnsat.com, Meet - Online FDP on "Addi...", attendance session 3 day4 - tach, Attendance record - Google Form

URL: <https://meet.google.com/rwg-ahom-max>

Participants:

- Shweta Gupta (Avatar: G)
- YOGESH KUMAR (Avatar: Photo)
- S L Meena (Avatar: Photo)
- Imran Ansari (Avatar: Spider)
- Rajesh Attri (Avatar: R)
- Zaheen Khan (Avatar: Photo)
- Dr. Lokesh Kumar (Asstt. Professor Dio M... (Avatar: Photo)
- 38 others (Avatar: K, M)
- AMFDP (Avatar: Photo)

3:54 PM | Online FDP on "Additive Manufact..."

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https://meet.google.com/rwg-shom-mxd?pli=1

Prof. Abid Haleem (D/o Mechanical Engineering) (Presenting)

### Contents

- Introduction to Additive Manufacturing (AM)
- How Am and SM are different
- Why AM required for sustainability
- Sustainability dimensions of AM
- AM and its meaningful advances in decreasing environmental degradation
- AM for reducing the requirements of resources
- AM for reducing Supply Chain cost
- Developing a sustainable AM ecosystem: Basic building blocks
- Enriching sustainability through AM processes: process flow
- Role of AM applications in improving environmental sustainability
- SDG goals fulfilled by AM
- Concluding remarks




Participant avatars and names: Md. Shadab B..., Jagat Gangwar, Md Rashid Akhtar, J k Sagar, Prabhunandan.g..., Sheeta Gupta, 40 others, AM FDP

11:28 AM | Online FDP on "Additive Manufac..."

Meeting controls: Mute, Video, Chat, Reaction, Screen Share, Hand Raise, More, End Call

Prof. S.M.Muzakkir (D/o Mechanical Engineering) (Presenting)

**Automation:**  
**A Journey Through Methods, Challenges, and Future Directions**



**S. M. Muzakkir**  
Professor  
Jamia Millia Islamia

Prof. S.M.Muzakkir (D/o Mechanical Engineering)

Shiv Kumar | P K Yadav | Zaheen Khan | Neetu Bansal | Dr Natasha Shar... | YOGESH KUMAR | 22 others | AM FDP

2:29 PM | Online FDP on "Additive Manufact..."

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https://meet.google.com/rwg-ahom-mxd?pli=1

Prof. Veera Gupta

Er. SHARA KHURS... Dr. Abid Ali Khan (...)

Azhar Equbal Neetu Bansal

Dr. Natasha Sharma YOGESH KUMAR

18 others AM FDP

10:05 AM | Online FDP on "Additive Manufa..."

Nifty bank +0.88%

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