



One Week Online Faculty Development Program

Next-Generation Coatings: Polymers, Functional Coatings and Durability Engineering

during

February 23-27, 2026 (Monday to Friday)

organized by

Department of Paint Technology

School of Chemical Technology

HARCOURT BUTLER TECHNICAL UNIVERSITY, KANPUR-208 002

Link for Registration

<https://forms.gle/Y2MWR9pp5WR2RnD38>

**FREE
REGISTRATION**



Department of Paint Technology
Harcourt Butler Technical University, Kanpur

Title:

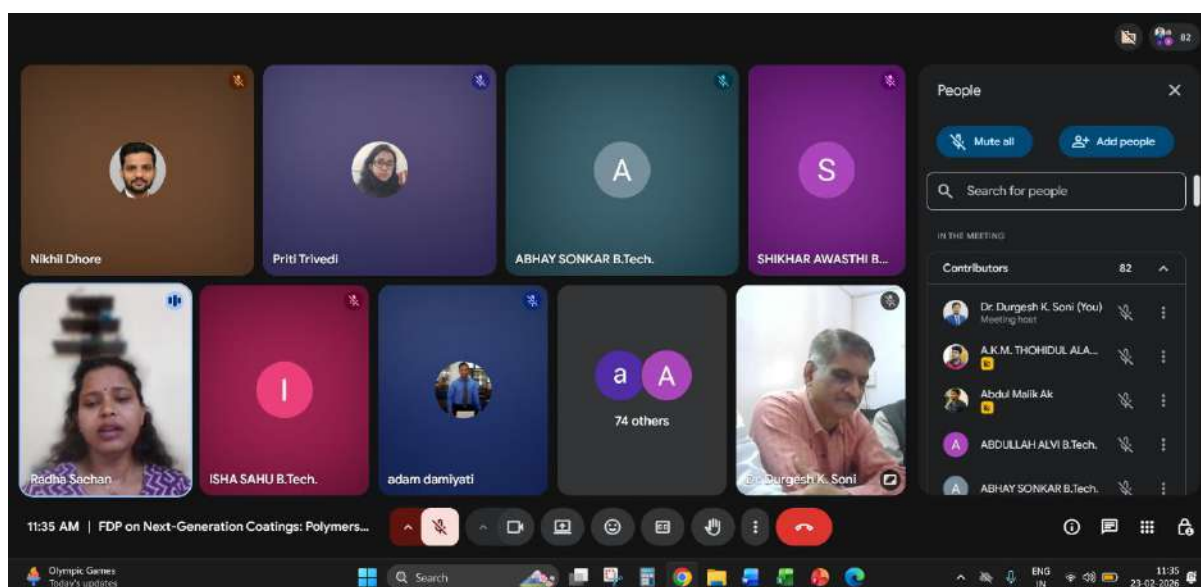
One-Week Online Faculty Development Program on “Next-Generation Coatings: Polymers, Functional Coatings and Durability Engineering”

Dates: 23rd – 27th February 2026

Mode: Online

Organized By:

- Department of Paint Technology, HBTU Kanpur



Participants:

- Faculty Members from various institutions
- Research Scholars
- Industry Professionals
- Postgraduate and Undergraduate Students

1. Introduction

The Department of Paint Technology, HBTU Kanpur, successfully organized a **One-Week Online Faculty Development Program (FDP)** on “*Next-Generation Coatings: Polymers, Functional Coatings and Durability Engineering*” from 23rd to 27th February 2026.

The FDP aimed to provide a comprehensive platform for knowledge exchange, covering both **fundamental and advanced aspects of coatings technology**, while integrating **academic insights with industrial applications**.

2. Objectives of the FDP

- To provide in-depth knowledge of **modern coating technologies**
- To bridge the gap between **academic research and industrial practice**
- To enhance understanding of **functional and smart coatings**
- To promote **interdisciplinary learning** in polymers, materials science, and engineering
- To facilitate interaction between **academicians and industry professionals**

3. Structure of the Program

The FDP was structured into **nine expert lectures**, delivered by eminent academicians and industry professionals, covering diverse themes such as:

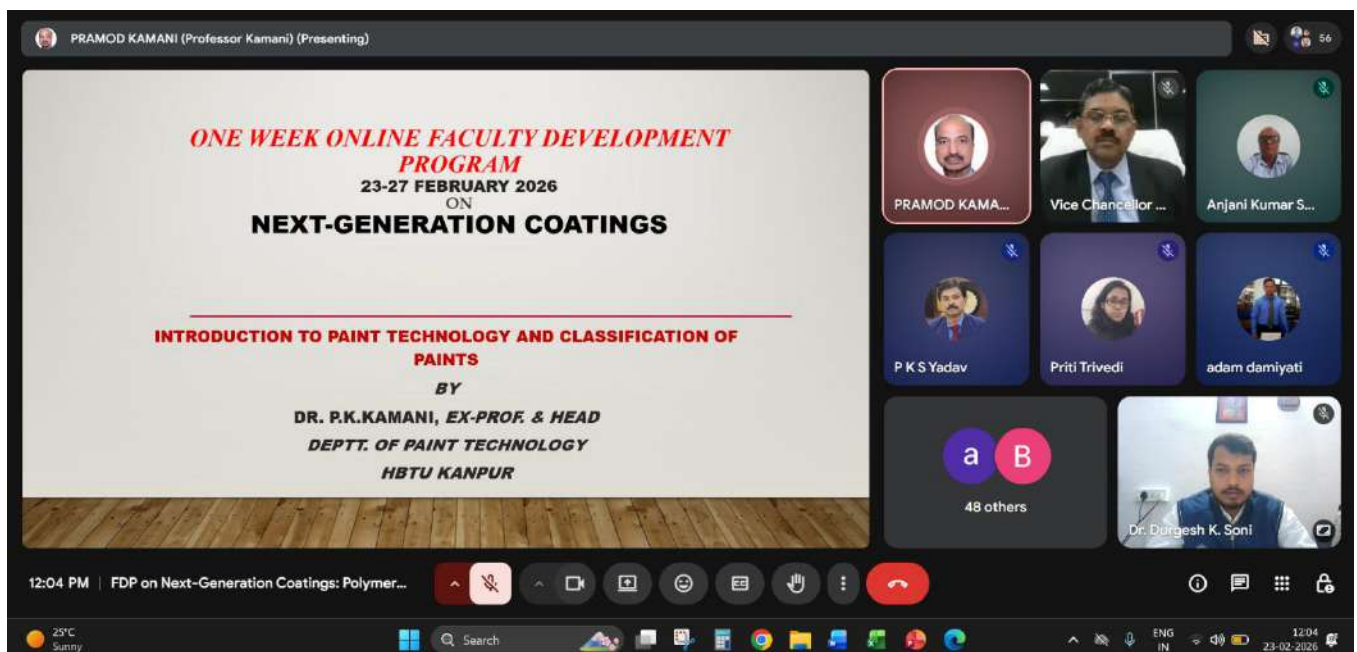
4. Details of Expert Sessions

Lecture 1

Speaker: Prof. Pramod K Kamani

Topic: Introduction to Paint Technology and Classification of Paints

- Overview of paint components and functions
- Classification based on composition and application



The screenshot displays a Zoom meeting interface. The main window shows a presentation slide with the following text:

ONE WEEK ONLINE FACULTY DEVELOPMENT PROGRAM
23-27 FEBRUARY 2026
ON
NEXT-GENERATION COATINGS

INTRODUCTION TO PAINT TECHNOLOGY AND CLASSIFICATION OF PAINTS
BY
DR. P.K.KAMANI, EX-PROF. & HEAD
DEPTT. OF PAINT TECHNOLOGY
HBTU KANPUR

The right side of the screen shows a grid of participants. Visible names include PRAMOD KAMA..., Vice Chancellor..., Anjani Kumar S..., P K S Yadav, Priti Trivedi, adam damiyati, and Dr. Durgesh K. Soni. A tile for '48 others' is also present. The bottom of the screen shows the Zoom control bar with icons for mute, video, chat, and other functions. The system tray at the very bottom indicates the time is 12:04 PM on 23-02-2026, with a temperature of 25°C and sunny weather.

Lecture 2

Speaker: Dr. Shashi Bhushan Arya

Topic: High Temperature Corrosion and Thermal Barrier Coatings

- Mechanisms of corrosion at elevated temperatures
- Design and applications of thermal barrier coatings

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Outlines" with the following bullet points:

- Introduction: Corrosion
- High Temperature Corrosion?
- Thermal barrier coatings (TBC)
- TBC failure
- Conventional and new type of Top coat
- Synthesis of ceramic powders
- Case studies

On the right side, there is a "People" panel showing a list of participants in the meeting, including Dr. Durgesh K. Soni (Meeting host), A.K.M. THOHIDUL ALA..., Abdul Malik Ak, ABHAY SONIKAR B.Tech., and Abhimanyu Chaurasia. The meeting title at the bottom is "FDP on Next-Generation Coatings: Polymers...".

Lecture 3

Speaker: Dr. Ramanand Jagtap

Topic: Radiation Curable Coatings and Their Applications

- UV/EB curing mechanisms
- Advantages in industrial coatings

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Wavelength of UV Radiation". The slide features a diagram of the electromagnetic spectrum with the following labels and values:

- UltraViolet:** Divided into Shortwave UVC (200-280 nm), Middlewave UVB (280-315 nm), and Longwave UVA (315-400 nm).
- Visible Light:** Ranges from 400 nm to 760 nm.

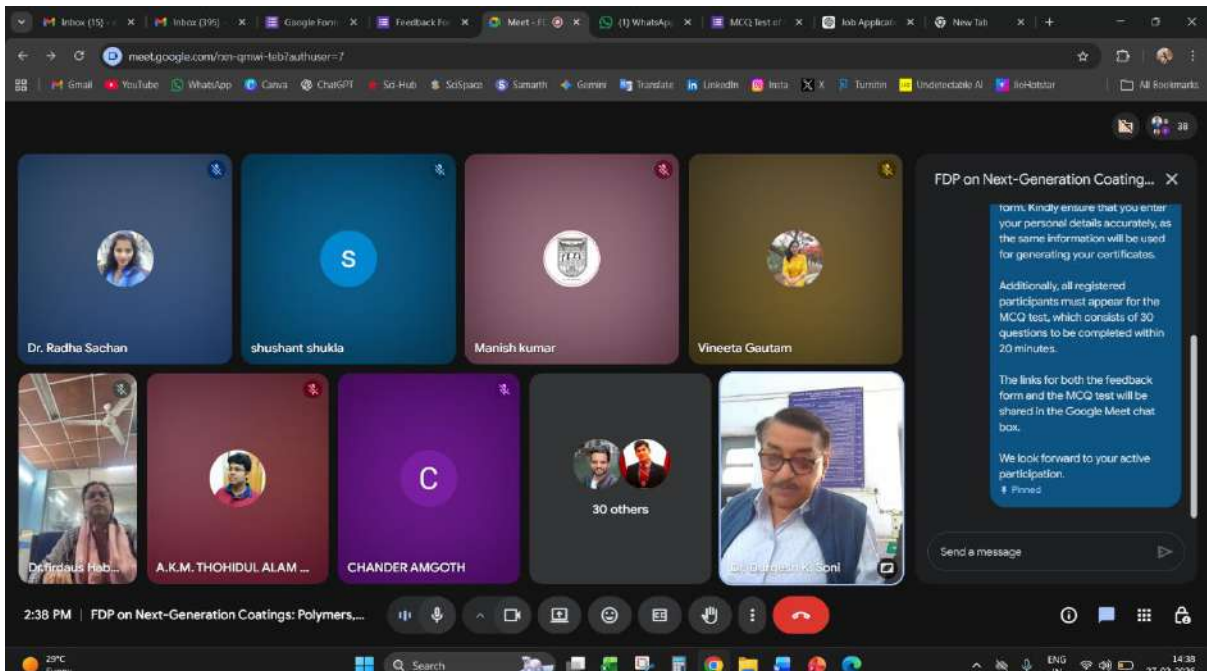
The x-axis is labeled "Wavelength in Nanometers (nm)". On the right side, there is a "People" panel showing a list of participants, including Ramanand Jagtap, Nikhil Dhone, Deepak Sharma, Malika Jain, Vivak, Durgesh Habbishon, and Dr. Durgesh K. Soni. The meeting title at the bottom is "FDP on Next-Generation Coatings: Polymers...".

Lecture 4

Speaker: Dr. Pramod Kumar

Topic: Cathodic Electrodeposition Coatings

- Fundamentals of electrodeposition and Industrial applications in automotive coatings

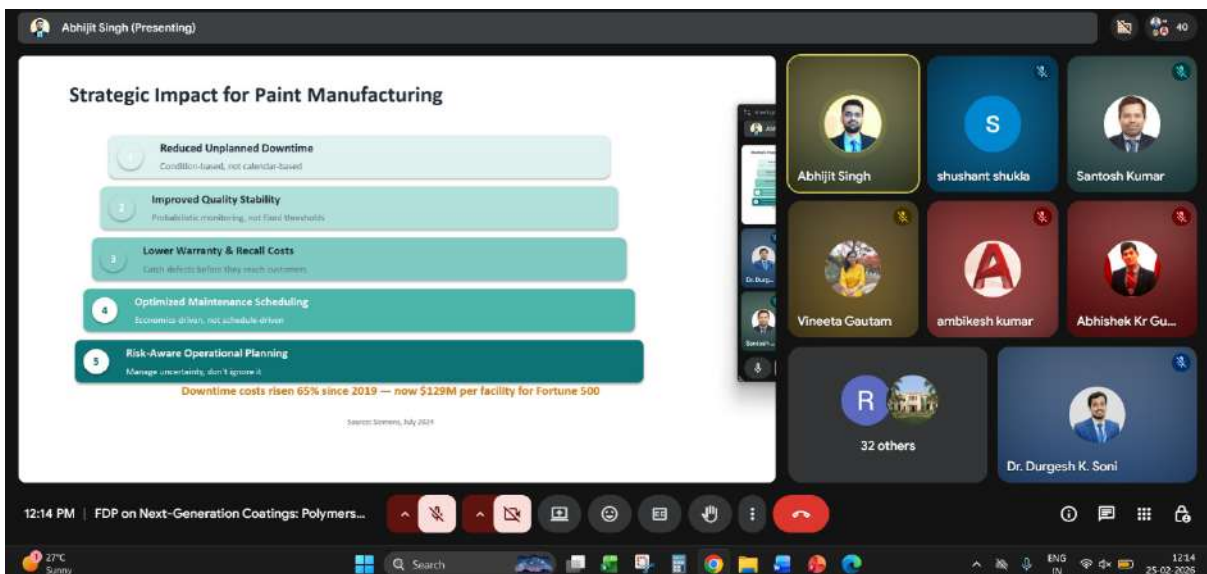


Lecture 5

Speaker: Abhijit Singh

Topic: Risk, Uncertainty, and Optimal Decision Making in Paint Manufacturing

- Decision-making frameworks
- Risk analysis in industrial operations



Lecture 6

Speaker: Dr. Dharendra Mani Shukla

Topic: Strategic Management in Paint Industry

- Industry dynamics and competitive strategies
- Business decision-making in coatings sector

Asian Paints – Case Study

Asian Paints' cost structure reflects a differentiation strategy characterized by:

- Superior brand investment
- Strong R&D-backed innovation
- Advanced supply-chain integration
- Dealer and painter ecosystem control

3:44 PM | FDP on Next-Generation Coatings: Polymers... | 28°C Sunny | 25-02-2025

Lecture 7

Speaker: Prof. Suresh Sundaramurthy

Topic: Pipeline Coatings for Fuel Transport: Practical Challenges and Applications

- Corrosion protection systems
- Field challenges in pipeline coatings

Pipeline Coating for Fuel Transport: Practical Challenges and Applications

Prof. Dr. Suresh Sundaramurthy (Ph.D., F.S.E.E.M., F.I.L.C.M.E.)
Head of the Department and Prof I/c Central Research Facility & CSR Cell
Department of Chemical Engineering
Maulana Azad National Institute of Technology Bhopal

Profile website: <https://manit.irins.org/profile/61748>

2:38 PM | FDP on Next-Generation Coatings: Polymers... | 28°C Sunny | 25-02-2025

Lecture 8

Speaker: Dr. Harsh Pandey

Topic: Simulations of Soft Biological Materials

- Modeling and simulation approaches
- Relevance to coatings and soft matter

Harsh Pandey (Presenting)

FDP on Next Generation Coatings: Polymers, Functional Coatings and Durability Engg. (Feb 2026)

MANIPAL UNIVERSITY JAIPUR

Rensselaer
Dynamics of Complex Fluids Research Group
Rensselaer Polytechnic Institute
Troy, NY, USA.

Simulations of Soft Materials

Dr. Harsh Pandey,
Associate Professor
Dept of Biotechnology and Chemical Engg.
PI: Environmental Modeling and Simulations
Research Cluster,
Centre for Water Research and Sustainable
Technologies (CWRST)

Department of Paint Technology, School of Chemical Technology,
Harcourt Butler Technical University, Kanpur, &
Paint and Coating Technologist's Association (PACT)

TRUE Colours

11:40 AM | FDP on Next-Generation Coatings: Polymer...
24°C Sunny

Lecture 9

Speaker: Dr. Dharmansh

Topic: Smart Coatings: Self-Healing, Anti-Microbial and Anti-Graffiti Coatings

- Emerging trends in smart coatings
- Functional performance and applications

dharmansh deshwar (Presenting)

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Department of
Polymer & Process Engineering

Smart Coatings

Presented by:
Dr. Dharmansh

11:37 AM | FDP on Next-Generation Coatings: Polymers...
25°C Sunny

People

Mute all Add people

Search for people

IN THE MEETING

Contributors 36

- Dr. Durgesh K. Soni (You) Meeting host
- A.K.M. THOHID ALA...
- Abdul Malik Ak
- adam damiyati
- ANISH CHAIBHAN RTELH

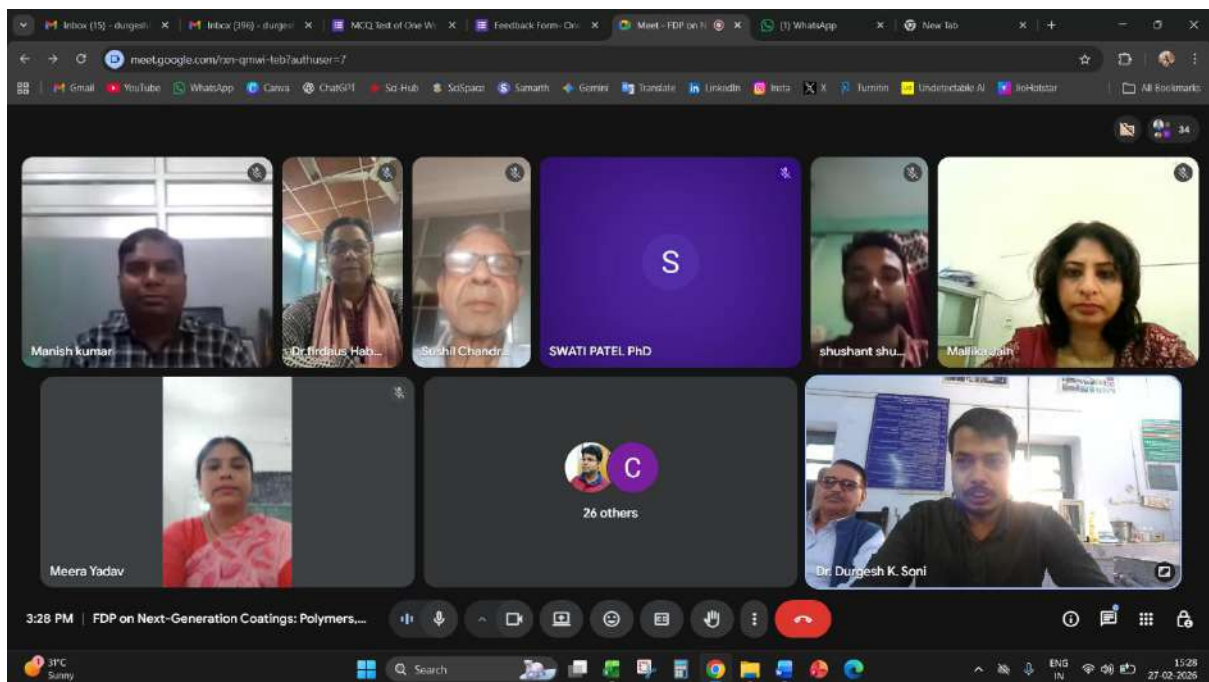
5. Key Highlights of the FDP

- Participation from **academia and industry across India**
- Coverage of **both fundamental and advanced topics**
- Integration of **technical, managerial, and practical perspectives**
- Strong emphasis on **sustainability and innovation**
- Interactive sessions with Q&A and discussions

6. Valedictory Session

The FDP concluded with a structured valedictory session including:

- **MCQ-based Assessment** to evaluate participant learning
- **Interactive Feedback Session** for program improvement
- Discussion on **future research directions and industry trends**



7. Learning Outcomes

Participants were able to:

- Understand **advanced coating technologies and applications**
- Gain insights into **functional and smart coatings**
- Learn about **durability engineering and corrosion protection**
- Develop awareness of **strategic and managerial aspects of coatings industry**

- Enhance their capability to **integrate research with industrial applications**

8. Impact of the FDP

Academic Impact

- Strengthened knowledge base in advanced coatings
- Encouraged interdisciplinary research

Industrial Impact

- Improved understanding of real-world challenges
- Promoted industry-relevant skills

Institutional Impact

- Enhanced reputation of the department
- Strengthened industry-academia collaboration

9. Relevance to NAAC/NBA Criteria

NBA Alignment:

- **Criterion 3:** Program Outcomes (Technical knowledge, innovation)
- **Criterion 5:** Faculty Contributions
- **Criterion 7:** Professional Activities

NAAC Alignment:

- **Criterion 2:** Teaching-Learning Process
- **Criterion 3:** Research and Innovation
- **Criterion 5:** Student Development
- **Criterion 7:** Best Practices

10. Conclusion

The One-Week FDP was a grand success, effectively bridging the gap between **academic knowledge and industrial practice**. It provided a holistic understanding of next-generation coatings, encompassing **polymers, functional coatings, durability engineering, and strategic insights**.

The program reaffirmed the department's commitment to **academic excellence, innovation, and industry engagement**, contributing significantly to capacity building among faculty, researchers, and professionals.