

MET'S Institute of Pharmacy

ACTIVITY REPORT

Name of Activity: A Certificate Course on AI in Pharmaceutical Industries and research

Participants.	Participants	Department
241	Staffs F. Y. B. Pharm, F. Y. M. Pharm All Branches	All

Details of the Program: June-July 2026 (online mode: Zoom).

Speaker:

- Dr. Sunil Kumar Gupta, Assistant Professor (Bioinformatics), Department of Biotechnology, National Institute of Pharmaceutical Education and Research (NIPER), Raebareli, Lucknow – 226015,
- Dr. Puneet, Project Manager, Innoplexus, India

A Certificate Course on “AI in Pharmaceutical Industries and Research” was successfully conducted by Mumbai Education Trust’s Institute of Pharmacy, Nashik, in association with Learn to Upgrade, a Government-recognized certification institute under Skill India and NSDC. The course was designed to provide students and faculty members with fundamental as well as practical knowledge of Artificial Intelligence (AI) and its applications in the pharmaceutical industry and research. The course was conducted by eminent resource persons, namely Dr. Sunil Kumar Gupta, Assistant Professor (Bioinformatics), Department of Biotechnology, National Institute of Pharmaceutical Education and Research (NIPER), Raebareli, Lucknow – 226015, and Dr. Puneet, Project Manager, Innoplexus, India. Their expertise provided participants with valuable academic and industry-oriented insights into the emerging applications of AI in pharmaceutical sciences.

A total of 282 participants, comprising 41 staff members and 241 students from B. Pharm and M. Pharm programmes, enrolled for the certificate course. The 30-hour course covered comprehensive topics including Introduction to AI in Pharma, Fundamentals of Pharmaceutical Data, Machine Learning, AI in Drug Discovery and Development, AI in Clinical Research and Trials, AI in Pharmacovigilance and Drug Safety, AI in Regulatory Affairs and Medical Writing, AI in Pharmaceutical Manufacturing and Quality Control, and AI in Research, Literature Mining and Scientific Analysis. The course also included hands-on software practice and a mini/capstone project, enabling participants to gain practical exposure to AI-assisted pharmaceutical applications.

Participants were introduced to several contemporary AI and analytical tools, including ChatGPT, Google Gemini, Perplexity AI, Python, Jupyter Notebook, KNIME, Orange Data Mining, RDKit, PubChem, SwissADME, PyMOL, AutoDock, Excel, Power BI, Grammarly, Mendeley and Zotero. The course enhanced participants’ understanding of how AI can support drug discovery, molecular analysis, clinical trials, drug safety monitoring, regulatory documentation, pharmaceutical manufacturing, quality control, literature review, and scientific research. It also helped participants appreciate the growing role of AI in improving efficiency, productivity, innovation, and decision-making within the pharmaceutical sector.

Overall, the certificate course was a valuable academic and professional development initiative that successfully bridged pharmaceutical sciences with emerging AI technologies, equipping students and faculty members with relevant knowledge and practical exposure for future academic, research, and industrial applications.

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Program Objective Achievement

PO1	Pharmacy Knowledge	✓	PO7	Pharmaceutical Ethics	✓
PO2	Planning Abilities	✓	PO8	Communication	✓
PO3	Problem Analysis	✓	PO9	The Pharmacist and society	✓
PO4	Modern Tool Usage	✓	PO10	Environment and Sustainability	
PO5	Leadership Skills		PO 11	Lifelong Learning	✓
PO6	Professional Identity	✓			
Objectives of the Activity		To explore the AI tools in Pharma research			
Benefits of the activity		Enhanced participants' knowledge and practical skills in applying AI technologies to pharmaceutical research, drug discovery, clinical research, pharmacovigilance, and industry practices			

Photos of the event

