



NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY
(PHARMACY INSTITUTE), GREATER NOIDA, U.P. 201306

A Report on **Artificial Intelligence in Healthcare Operations and Management**

The Noida Institute of Engineering and Technology (Pharmacy Institute), Greater Noida, organized a short-term certification course for Bachelor of Pharmacy students on the topic “**Artificial Intelligence in Healthcare Operations and Management**” from **October 17, 2023, to October 21, 2023**. Sixty students attended this 5-day certification course on AI in Healthcare Operations and Management, designed to equip professionals with the knowledge and skills to leverage artificial intelligence for optimizing healthcare administration, improving efficiency, and enhancing decision-making. Participants explored AI-driven applications in hospital resource allocation, patient flow optimization, supply chain management, financial analytics, and administrative automation. Through expert-led discussions, interactive case studies, and practical exercises, attendees learned how AI can improve predictive analytics for hospital operations, ensuring smarter resource distribution and better patient care.

The course started with an **overview of AI in healthcare operations**, addressing key challenges and how AI solutions can streamline processes by **Dr. Shailendra Saraf**, Director, NIPER Ahmedabad. The second session was delivered by **Dr. Kunal Roy**, Professor, Jadavpur University, in which participants explored the role of **AI for resource allocation and patient flow**, including predictive models for bed management, emergency room triage. The next module was delivered by **Dr. Javed Ali**, Professor, Jamia Hamdard, on **AI in supply chain and logistics**, focusing on demand forecasting, inventory control, and optimizing pharmaceutical distribution. On Day 4, the focus shifted to AI's impact on financial and administrative processes by **Dr. Mohd. Shahar Yar**, Professor, Jamia Hamdard, highlighting how AI-driven automation can enhance medical billing, detect fraud, and improve revenue cycle management. The final day, **Dr. Avijit Mazumder**, Director, NIET (Pharmacy Institute), explored **ethical, regulatory, and implementation challenges of AI**, including compliance with healthcare regulations like HIPAA and GDPR, addressing biases in AI models, and overcoming barriers to adoption.

Throughout the program, participants were engaged in **hands-on exercises and a capstone project**, where they developed AI-driven solutions for real-world operational

challenges in healthcare. The course included daily assessments and culminated in a certification upon successful completion. Designed for healthcare administrators, IT professionals, policymakers, and business leaders, this course offered practical insights, networking opportunities, and industry expertise to help participants effectively integrate AI into healthcare operations and drive innovation in hospital management.



