



राष्ट्रीय औषधीय शिक्षा एवं अनुसंधान संस्थान (नाईपर) हाजीपुर
NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION AND
RESEARCH (NIPER) HAJIPUR

Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers



Two-Day Workshop on Capacity building for AI/ML in Pharmaceutical and Biopharmaceutical R&D

October 8th and October 9th, 2025

NIPER Hajipur strives to empower its students, scholars and faculty with industry-oriented curriculum, imbibing AI/ML tools and techniques in Pharmaceutical R&D for stronger research outcomes through advance data analysis, modeling and research method tools. Join us for an engaging workshop on Biostatistics & Design of Experiments (DoE), featuring insights from industry experts. This interactive session will explore the principles of DoE, demonstrate the software capabilities for statistical analysis, and provide hands-on experience in designing and optimizing products and processes using the DoE framework.



Speaker

Dr. Muralidhara A

JMP Global Academic Team



Chief Patron

Prof. K. Ruckmani

Director, NIPER Hajipur

Event Coordinators: Dr. Suhani Sinha and Dr. P. Ramalingam



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Time	Event
10:00 - 10:15 AM	Inauguration with lighting of lamp Presidential address by the Director, NIPER Hajipur
10:15 - 10:20 AM	Felicitation of Invited speaker
DAY 1 : Biostatistics and Data Visualization	Session 1: Statistical Thinking in Industrial Problem Solving, Data and Modeling Types, Descriptive and Inferential Statistics, Distributions, Test of Normality, Cases with Hands-on Exercises Session 2: Bivariate Analysis, T Test, ANOVA, Chi-square Test, Non-Parametric Test, Cases with Hands-on Exercises
	LUNCH BREAK
	Session 3: Correlation, Simple Linear and Multiple Linear Regression, Cases with Hands-on Exercises Session 4: Data Visualization Plots, Graphs, Maps, Interactive Visualizations, Cases with Hands-on Exercises Resources for learning, Discussions and wrap up. END OF DAY 1.



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Time	Event
Day 2: Design of Experiments (DoE)	<p>Session 1: Introduction to DoE: Strategy of Experimentation, Terminologies in DoE. Screening designs: Factorial & Fractional Factorial Experiments, Cases with Hands-on Exercises</p> <p>Session 2: Optimization Designs: Response Surface Methodology (RSM), Central Composite (CCD) and Box Behnken designs (BBD), Prediction and Optimization, Cases with Hands-on Exercises</p>
LUNCH BREAK	
	<p>Session 3: Formulation/Mixture Designs, Cases with Hands-on Exercises</p> <p>Session 4: Modern & Computer-Generated Designs: Custom Design, Cases with Hands-on Exercises Resources for learning, Discussions and wrap up.</p> <p>Vote of Thanks by Dean, NIPER Hajipur END OF DAY 2.</p>