



राष्ट्रीय औषधीय शिक्षा एवं अनुसंधान संस्थान- हाजीपुर

National Institute of Pharmaceutical Education and Research (NIPER)- HAJIPUR

औषध विभाग / Department of Pharmaceuticals

रसायन एवं उर्वरक मंत्रालय, भारत सरकार / Ministry of Chemicals & Fertilizers, Govt. of India

Dist: Vaishali, State: Bihar, India, PIN: 844102, Website: www.niperhajipur.ac.in

Short-term training & Certificate Course on Sophisticated Analytical Instruments and their Biological Applications

September 02-06, 2024

About NIPER-Hajipur

The National Institute of Pharmaceutical Education and Research (NIPER) is the first Institute of its kind to be set up at in the State of Bihar in the year 2007. It is an autonomous institution of national importance, established under the aegis of Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, Govt. of India under NIPER Act 1998 at Hajipur in Vaishali District of Bihar. It is a Centre of excellence for higher education, research and development in pharmaceutical sciences, conceived to provide leadership in pharmaceutical sciences and other related areas.

About Dept. of Pharmaceutical Analysis

The pharmaceutical analysis specialization focusses the science and skills in the new analytical method development and validation of procedure using different analytical principles like chromatography, spectroscopy, thermal methods etc., trouble shooting of analytical procedure, quality control of pharmaceuticals/nutraceuticals/phytopharmaceuticals. Our department striving for collaborative research in proteomics area for drug target validation, biomarkers discovery, chemoproteomics and post translational modification. The department also participating in establishing of "centre of excellence in biologics" for analytical characterization, stability and release. The department is pioneer in establishing analytical quality by design (AQbD) at par with the requirement of ICHQ14, stability studies, genotoxicity profiling, preclinical pharmacokinetics etc. The laboratory is established with adequate space including, Change room, Wet analysis laboratory, Sample preparation area, Central facility – 1 (LC-MS(Orbitrap)/ Proteomics lab), Central facility-2 (GC-MS/MS), Hazard Chemical zone (Fume Hood area), Chemicals storage area. The Laboratory implemented the minimum GLP requirements, SOPs, fire safety requirement, Log-books, exit-entry record, sample/standards storage record, calibration/maintenance record, PPE, Hazard disposal etc.

Objectives of the Short-term Training course

- To discuss the principle, and biological application of LC-MS/MS, GC-MS/MS and ICP-MS techniques.
- To equip the skills on sample processing suitable for biological sample analysis by mass spectrometry.
- To demonstrate the work-flow for proteomics and metabolomics analysis by LC-MS/MS.
- To demonstrate the work-flow for heavy metal analysis by ICP-MS in human plasma samples.
- To demonstrate the work-flow for metabolite profiling by GC-MS/MS in plant / biological samples.



Course details



Training Hours	30 hours
Maximum Participants	25 (First come & First basis)
Assessment	MCQ based assessment test based on the training
Qualifying marks	50% for issuance of certificate
Fee proposed	INR 7000 (Registration, Kit, working lunch, 2 tea/refreshments)
Accommodation	As per NIPER Hostel Norms
Participanteligibility	Any Science / Medical/Pharmacy/ Graduates M.Sc/MBBS/MD/M.S/M.Pharm/B.Pharm or any researchers with first-class pass and relevant to the course objectives
Registration link	https://forms.gle/k5Y7SqSciMVof4PU8

Short-term training course structure

Days	Activities
Day 1	Formal inauguration Introductory session on the course Fundamental lecture sessions on LC-MS/MS, ICP-MS,GC-MS/MS, CIF Tour / Site demo (In batch-wise)
Day 2	Onsite training on sample preparation for proteomics, Heavy metal analysis and metabolomics (Three cycle: Batch 1, 2, 3)
Day 3	Instrument site sample analysis and work-flow for proteomics and metabolomics analysis by LC-MS/MS (Batch 1 & 2) Instrument site sample analysis and work-flow for heavy metal analysis by ICP-MS in human plasma samples (Batch 1 & 2)
Day 4	Data interpretation of proteomics and metabolomics analysis by LC-MS/MS (Common session) Instrument site sample analysis and work-flow for speciation analysis by ICP-MS in human plasma samples (Batch 1 & 2)
Day 5	Site training & work-flow for metabolite profiling by GC-MS/MS in plant / biological samples. Assessment by MCQ test. Feedback, Certificate distribution

Organized by

Dept. of Pharmaceutical Analysis &
Central Instrumentation Facility

Convener

Dr V Ravichandiran
Director, NIPER Hajipur

Organising secretary

Dr P Ramalingam

Course Coordinators

Dr. Rahul Gajbhiye, (918240384137)
Dr. Anupam Jana, (919830649577)

Course Advisory committee

Dr. Vipin K Parihar
Dr. Debabrata Mandal,
Dr. Krishnamurti,
Dr. Nitesh kumar,
Dr. Vinod L.Gaikwad.
Dr. MuraliKumarasamy
Dr. Abhishek Sahu

Dr. M RajKumar,
Dr. Sameer Dhingra
Dr. Sanjiv Singh
Dr. Lalit Kumar,
Dr. SuhaniSinha,
Dr. A Venkateshwara Rao

For enquiries email:

anupamjana@niperhajipur.ac.in