

Accelerate Vigyan - "Karyashala"



One Week Online High-End Workshop on

Advancements in *In vitro* Diagnostic Methods in Healthcare

19th-25th July 2021

About the Institute

Motilal Nehru National Institute of Technology Allahabad, is an institute with total commitment to quality and excellence in academic pursuits. The institute has been granted the status of Institution of National Importance. It was established as Motilal Nehru Regional Engineering College (MNREC) in the year 1961 as a joint enterprise of Government of India and Government of Uttar Pradesh. MNREC was transformed into National Institute of Technology fully funded by Ministry of Human Resource Development, Gov. of India.

The institute offers B.Tech, M.Tech, Ph.D, M.C.A, M.B.A., (Mathematics and Scientific Computing) degrees in various disciplines of sciences, engineering, Technology and humanities.

About the department

The Department of Biotechnology at MNNIT Allahabad was established as a new academic unit under Applied Mechanics in 2006, and gained shape as an independent administrative 'Department of Biotechnology' in April, 2012. The department comprises of expert faculty members from diverse

areas, state-of-art modular laboratories to perform experiments and hosts extramural research projects from various government agencies viz. DST, DBT, UGC, MNRE etc. Department runs B.Tech, M.Tech and PhD programmes in Biotechnology. Research outcomes are evident from the publication and patents files from the Department.

Course Overview and Objective

The growing incidence of chronic and infectious diseases has motivated the development of the in vitro diagnostics (IVD) market IVD tests are quintessential for diagnosis, prognosis, treatment and monitoring the progression of a disease. The development of advanced diagnostic platforms aims to provide faster, smaller, and more cost-effective tools that facilitate more precise diagnosis and point-of-care testing. This training programme is focused on the theme of "Advancements in in vitro diagnostic methods in healthcare" with the prime objective to provide knowledge and technical exposure towards new tools/methods to support disease diagnosis with special emphasis on in vitro diagnostics. With this course, the organizers wish to transmit and share

their own experience in this area with the participants in order to provide a holistic understanding of IVD methods for better health.

This training course aims to impart training on the IVD platforms presently being used for disease detection. The advancement in diagnostic methodologies may incline in choice of platform used, sensing technologies, reducing sample-to-answer time and cost of assay. In this context, expert lectures from scientists may cover advancements in areas like point of care diagnostics, mobile healthcare, lab-on-chip technologies; RT-PCR based molecular diagnostics, nanotechnology in diagnostics, and emerging technologies like smartphone or IoT (internet of things) for mobile healthcare.

Course Details:

- **Speakers:** Faculty and Scientists from reputed institutions like IITs, IISc, IISERs, NITs, and research laboratories of eminence will deliver talks.
- **Course Duration:** Seven days
- **Number of seats:** 25

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• Eligibility Criteria:

- PG and Ph.D. level students primarily from universities, Institutes, colleges, private academic institutions preferably in the area of applied biological sciences are welcomed to submit their registration forms.
- The selection of the eligible students will be done based on the recommendations of the Selection Committee constituted for this purpose.
- Course Pre-requisite: Knowledge of Immunology-antigen-antibody interactions, protein structure, enzyme kinetics, Nanotechnology, Molecular biology principles and techniques.
- Online platform: The workshop will be conducted online through MS Teams.

Registration Procedure

- There is no registration fee for this course.
- Participants have to register themselves through following link
<https://forms.gle/fDvQ12JoMLCTYcc57>
- No Objection Certificate: Participants have to produce a letter of authentication from their supervisor/head of Department/institute indicating their association with institution and No objection

certificate for allowing the student to undergo training in workshop upon selection.

- Relevant reference material will be provided to all participants. The certificates shall be issued to all participants after successful completion of the course.
- Last date of online Registration: 12nd July 2021
- Intimation to Selected participants: 15th July 2021.

Organizing Team:

Patron: Prof. Rajeev Tripathi
Director, MNNIT Allahabad

Convener (s) :

Dr. Manisha Sachan, Department of Biotechnology, MNNIT Allahabad
Dr. Seema Nara, Department of Biotechnology, MNNIT Allahabad

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