

## CSIR Integrated Skill India Initiative

Training Programme in High end equipments for clinical applications- Flow Cytometry , Optical Microscopy and Electron Microscopy

Code: IICB-BME-01

CSIR-IICB, Kolkata will offer a training course in 'High end biomedical equipments – Flow cytometry , Optical Microscopy and Electron Microscopy' to generate human resources that are employment-ready for the requirements of biomedical research facilities in various educational and research institutions. This program aims at training the participants in basic principles and applications of flow cytometry ,modern optical microscopy and electron microscopy in clinical diagnostics and biomedical research. After successful completion of the course students will become eligible for engagement as core operators in respective technologies in clinical laboratories, pharmaceutical industries and R&D institutions. The course may also serve as an enabling expertise for students eager to pursue biomedical research in national and international institutions for biomedical research. The course is modular and one may opt for one or more of the three technologies offered – the choice module should be specified in the application.

<b>Educational Qualifications</b>	: B.Sc., B.Tech., M.Sc., M.Tech , PhD.
<b>Venue Of the course</b>	: CSIR-IICB
<b>Duration</b>	: 2 weeks
<b>Sponsorship</b>	: Established public/private sectors are welcomed to sponsor candidates of their interest.

## Training Curriculum for Course:

**Module 1 (IICB-SDP-HEIFC)** : Advanced training in flow cytometry - principles, immuno-phenotyping , intracellular protein detection, cell death/survival assays, probe-based techniques, applications in hematology and tissue transplantation, cell sorting, customized methodologies

**Module 2 (IICB-SDP-HEOM)** Advanced optical microscopy - principles, basic techniques, multidimensional and multicolour contexts, time lapse imaging, confocal imaging , high resolution and super resolution imaging, image processing and softwares .

**Module 3(IICB-SDP-HEEM):**(COURSE NOT OFFERED AT THE MOMENT) 

Basics of electron microscopy - principles of electron microscopy, TEM and SEM architectures and basic principles, sample preparation, imaging by TEM and SEM, principles of cryo-TEM, data processing and interpretation