

**CSIR Integrated Skill India Initiative**

**Certificate course in Advanced Molecular Structure  
Determination Using Mass Spectrometry, NMR, FT-IR, X-Ray  
Diffraction Techniques**

**Code: IICB-AAT-01**

CSIR-IICB proposes one training course on “Advanced Molecular Structure Determination Using Mass Spectrometry, NMR, FT-IR, X-Ray Diffraction Techniques” to generate skilled human resources for pharmaceutical and academic sectors. The course is specially targeted to candidates having chemical/pharmaceutical background with basic knowledge in organic and analytical chemistry.

Educational Qualifications	:	M.Sc in Chemistry or B.Pharm/M.Pharm
Duration	:	5 weeks
No. of Seats	:	20
Age group	:	21 years and above
Date of commencement	:	17.08.2018
Venue of the Course	:	CSIR-IICB
Course Fee	:	Rs. 20,000/-
Medium of Instruction	:	English

**Training Curriculum:**

- An introduction to advanced analytical techniques (X-ray, NMR, FT-IR, and mass spectrometry)
- Introduction to the basic and principles
- Theoretical and practical training on X-ray, NMR, FT-IR, and mass spectrometry
- Data processing and analysis in X-ray, NMR, FT-IR, and mass spectrometry
- Structure elucidation of chemical compounds by using these techniques.

**Salient features of the courses:**

- 50% theory and 50% practical classes
- Tutorials will be provided by eminent scientists of organic and medicinal chemistry background
- Lectures will be provided with multimedia aids

- Hands-on training on elucidation of structure of organic compounds using data from XRD, NMR, FT-IR, and mass spectrometry
- Professional skill development, case study, evaluation and certification.