



**ICAR-Central Institute of Post-Harvest  
Engineering and Technology, Ludhiana-141004**



**Online Certificate course on Microbiological  
and Biochemical Techniques used in Industries**



**(11-20 January, 2022)**

For Registration and Application

**Click Here!**

For further details, visit: <https://www.ciphnet.in/>

**Course Fee: ₹ 2000/- per Person**  
**Last Date of Registration: 06 January, 2022**

**Contact us**

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**Grab this opportunity to Get Practical Exposure**

**Course Layout**

- ❖ An overview of the ICAR-CIPHET, Ludhiana
- ❖ Virtual visit to different laboratories of the institute and introduction to various instruments used in microbiological and biochemical analysis
- ❖ Various methods for sterilization of media, isolation, culturing, maintenance and long term preservation of microorganisms
- ❖ Screening of microorganisms for production of industrially important enzymes
- ❖ Bioprocessing of foods
- ❖ Introduction to various spectrophotometric and chromatographic techniques (HPLC, GC)
- ❖ Estimation and determination of starch, sugars and reducing sugars
- ❖ Methods for determination of fats, oils and fatty acids
- ❖ Microencapsulation of various bioactive molecules

**Objectives**

- ❖ To acquaint participants to the functioning of various instruments used in industrial bioprocesses
- ❖ To appraise participant on different analytical techniques used in the monitoring and controlling bioprocesses

**Certification Process**

- ❖ Certificate to the participant shall be awarded only after the successful completion of the course.
- ❖ A successful completion refers to regular attendance >90% and scoring overall marks of 40% in the examination by the participant.

**Qualification**

- ❖ Graduates or Post graduates in any of the following subjects Microbiology / Microbial Technology / Biochemistry / Biochemical Engineering / Biotechnology / Food Technology / Food Science and Technology / Agricultural Engineering
- ❖ Entrepreneurs in bioprocessing
- ❖ No age limit.
- ❖ Limited Seats available, First Come First Served

**Coordinator**

Dr Ramesh Chand Kasana

**Co-Coordinators**

Dr K Narsaiah  
Ms. Surya  
Dr Poonam