

## SHORT TERM PROGRAMS



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**PROGRAM-1** PROGRAM CODE: CBPL—STRP-01-MICROBIOLOGY

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**DURATION:** 1 WEEK (5 working days)

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**PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) CFU COUNT SCREENING , PRODUCTION & ACTIVITY OF ONE ENZYMES

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3) ENZYME KINETICS & STATISTICS STUDIED

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

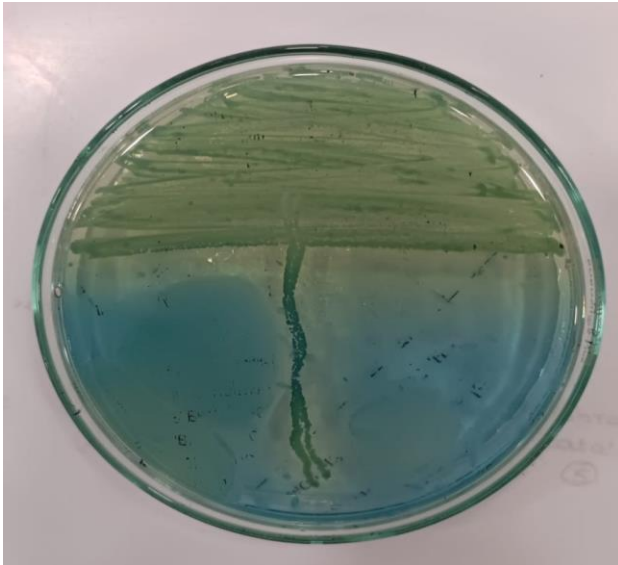
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**COST: Rs. 1416/-**

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**ELIGIBILITY: NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY , MICROBIOLOGY , LIFE SCIENCE .**

## SHORT TERM PROGRAMS



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**PROGRAM-2** PROGRAM CODE: CBPL—STRP-02- Organic acid

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**DURATION:** 1 WEEK (5 working days)

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**PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) SCREENING OF ORGANIC ACID PRODUCING MICROBES ,  
FERMENTATION METHOD USING AGRO- WASTE

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3) PURIFICATION STUDIES & THIN LAYER CHROMATOGRAPHY

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

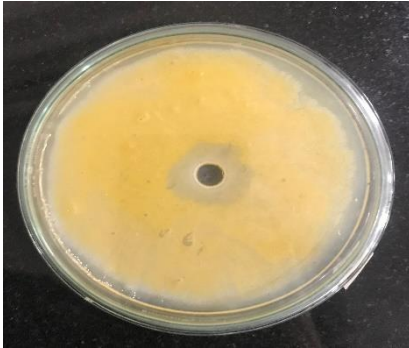
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**COST: Rs. 1416/-**

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**ELIGIBILITY: NON MICRO PEOPLE, BSE & MSC B.TECH  
BIOTECHNOLOGY , MICROBIOLOGY , LIFE SCIENCE .**

## SHORT TERM PROGRAMS



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**PROGRAM-3** PROGRAM CODE: CBPL-03 - ANTIMICROBIAL STUDIES

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**DURATION:** 2 WEEKS (10 working days)

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**PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) ASEPTIC TECHNIQUES & PLATING METHOD.

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3) WELL DIFFUSION METHODS FOR STUDYING THE ANTIBACTERIAL ACTIVITY OF COMPOUNDS

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4) SCREENING AND PRODUCTION STUDY OF ORGANIC ACID

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

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**COST: Rs. 2360/-**

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**ELIGIBILITY - NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY , MICROBIOLOGY , LIFE SCIENCE .**

## SHORT TERM PROGRAMS



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**PROGRAM-4** PROGRAM CODE: CBPL-04- MICROBIOLOGY & ENZYME STUDIES

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**DURATION:** 2 WEEKS (10 working days)

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**PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) STERILE TECHNIQUE & PLATING METHOD FOR ISOLATION OF MICROORGANISM

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3) SCREENING , PRODUCTION , & ENZYME ACTIVITY ESTIMATION .

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4) STUDY GROWTH PARAMETERS &, ENZYME KINETICS & STATISTICAL ANALYSIS

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

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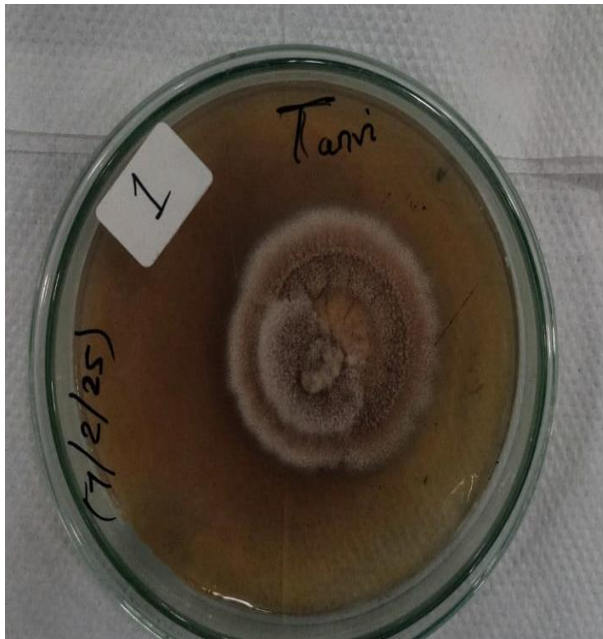
**COST: Rs. 2360/-**

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**ELIGIBILITY - NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY , MICROBIOLOGY , LIFE SCIENCE .**

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## SHORT TERM PROGRAMS



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**PROGRAM-5** PROGRAM CODE: CBPL—05 MICROBIAL ENZYMES AND ORGANIC ACID STUDY

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**DURATION:** 3 WEEKS (15 working days)

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**PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) SCREENING METHODS FOR ENZYME PRODUCING MICROBES AND ORGANIC ACID PRODUCING MICROBES

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3) ENZYME PRODUCTION USING SOLID & SUBMERGED AGRA – WASTE FERMENTATION TECHNIQUES

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4) ENZYME / ORGANIC ACID ESTIMATION AND GROWTH PARAMETERS STUDIES, THIN LAYER CHROMATOGRAPHY.

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5) STATISTICAL ANALYSIS & APPLICATION STUDY

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

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**COST: Rs. 3540/-**

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**ELIGIBILITY: - NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY , MICROBIOLOGY , LIFE SCIENCE .**

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## SHORT TERM PROGRAMS

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**PROGRAM-6** PROGRAM CODE: CBPL—06-MICROBIAL ENZYMES

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**DURATION:** 3 WEEKS (15 working days)

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**PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) FOOD ENZYMES AND DAIRY PARAMETERS

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3) ISOLATION OF ENZYME PRODUCING MICROBES , SCREENING METHODS ,  
MEDIA PREPARATION

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4) GROWTH PARAMETERS AT SHAKE FLASK LEVEL USING SOLID AS WELL AS  
SUBMERGED FERMENTATION TECHNIQUE

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5) ENZYME PRODUCTION AND ACTIVITY ESTIMATION AND ENZYME KINETICS ,  
Protein estimation [ANYONE ENZYME]

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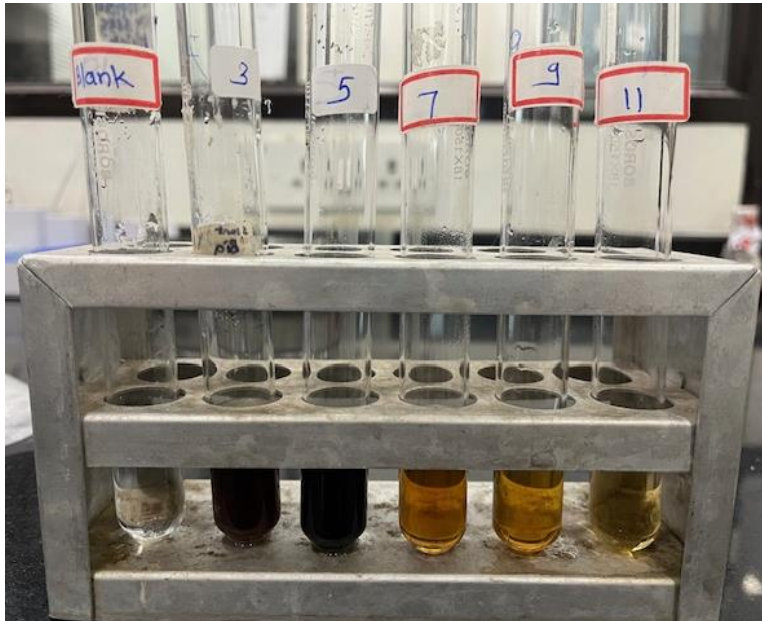
**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

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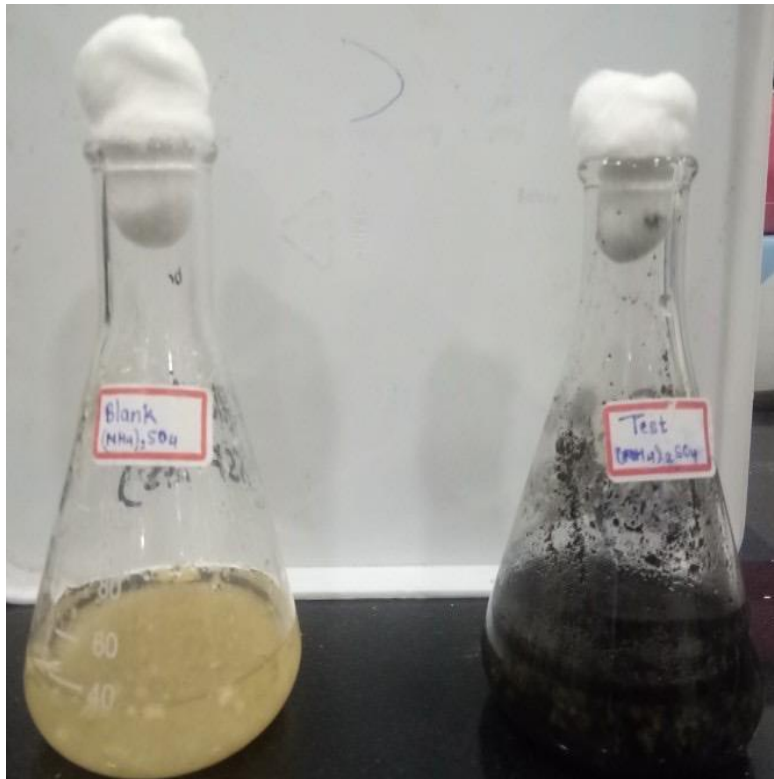
**COST: Rs. 3540/-**

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**ELIGIBILITY: NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY ,  
MICROBIOLOGY , LIFE SCIENCE .**



## ONE MONTH PROGRAMS



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**PROGRAM-7** PROGRAM CODE: CBPL—07- MICROBIAL ENZYME KINETICS-B

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**DURATION:** 4-5 WEEKS (1 MONTH)

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### **PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) ASEPTIC TECHNIQUES & SCREENING METHOD FOR ENZYME PRODUCING MICROORGANISMS

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3) GROWTH PARAMETERS AT SHAKE FLASK LEVEL USING SOLID AS WELL AS SUBMERGED FERMENTATION TECHNIQUE

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4) ENZYME PRODUCTION , REAGENT PREPARATION & ACTIVITY ESTIMATION [ANYONE TWO ENZYME]

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5) ENZYME KINETICS , PROTEIN ESTIMATION & STATIC ANALYSIS .

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

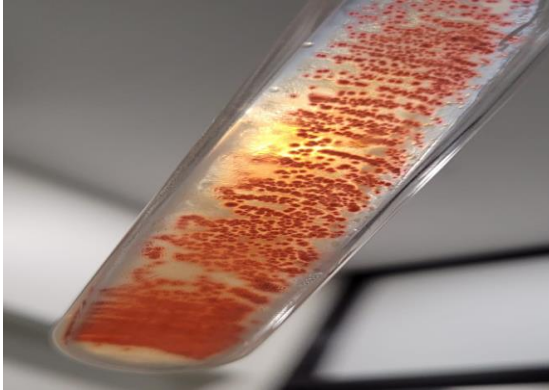
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**COST:** Rs. 5900/-

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**ELIGIBILITY:** NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY , MICROBIOLOGY , LIFE SCIENCE .

## ONE MONTH PROGRAMS



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**PROGRAM-8** PROGRAM CODE: CBPL—08-MICROBIAL ENZYMES AND COLOURANTS

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**DURATION:** 4-5 WEEKS (1 MONTH)

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### **PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) SCREENING OF ENZYME PRODUCING MICROORGANISMS AND MICROBIAL COLOURANTS

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3) GROWTH PARAMETERS AT SHAKE FLASK LEVEL USING SOLID AS WELL AS SUBMERGED FERMENTATION TECHNIQUE FOR ENZYME PRODUCTION

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4) ENZYME KINETICS , PROTEIN ESTIMATION, PARTIAL PURIFICATION TECHNIQUES.

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5) ENZYME ACTIVITY ESTIMATION [ANYONE ONE ENZYME] AND MICROBIAL COLOURANT EXTRACTION AND APPLICATION STUDIES

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

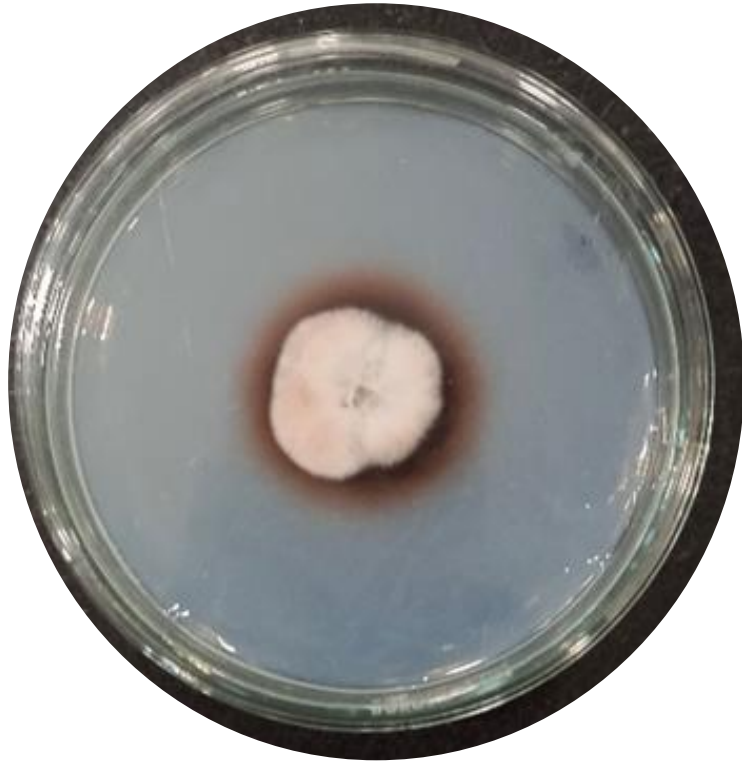
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**COST: Rs. 5900/-**

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**ELIGIBILITY: :NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY , MICROBIOLOGY , LIFE SCIENCE**

## ONE MONTH PROGRAMS



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**PROGRAM-9** PROGRAM CODE: CBPL—9 -MICROBIAL ENZYMES-  
PRODUCTION AND FORMULATION

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**DURATION:** 4-5 WEEKS (1 MONTH)

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**PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) ISOLATION OF MICRO ORGANISMS , SCREENING, REAGENT  
PREPARATION

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3) GROWTH PARAMETERS AT SHAKE FLASK USING SOLID AS WELL AS  
SUBMERGED FERMENTATION TECHNIQUE

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4) ENZYME PRODUCTION AND ACTIVITY ESTIMATION AND ITS PARTIAL  
PURIFICATION [ANY ONE ENZYME]

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5) ENZYME FORMULATION AND STABILITY AND APPLICATION STUDIES  
[ANYONE ANY ENZYME]

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

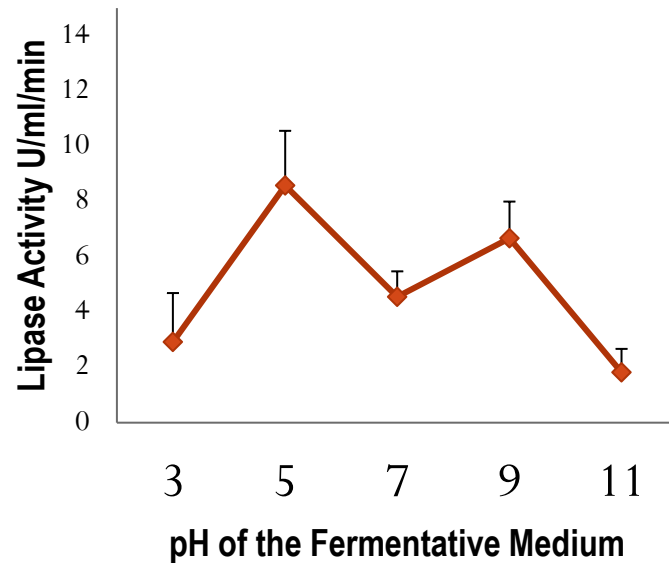
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**COST: Rs. 5900/-**

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**ELIGIBILITY::NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY  
, MICROBIOLOGY , LIFE SCIENCE**

## ONE MONTH PROGRAMS



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**PROGRAM-10** PROGRAM CODE: CBPL—10-MICROBIAL ENZYMES-  
PRODUCTION AND FORMULATION AND DISSERTATION GUIDANCE

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**DURATION:** 4-5 WEEKS (1 MONTH)

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### **PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS, plating method.

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2) GROWTH PARAMETERS AT SHAKE FLASK USING SOLID AS WELL AS  
SUBMERGED FERMENTATION TECHNIQUE AND STATISTICAL ANALYSIS .

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3) ENZYME PRODUCTION AND ACTIVITY ESTIMATION AND ITS PARTIAL  
PURIFICATION AND APPLICATION [ANY ONE ENZYME]

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4) PROTEIN ESTIMATION & PURIFY BY COLUMN CHROMATOGRAPHY.

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5) GUIDANCE ON HOW TO SELECT TOPIC FOR DISSERTATION, RESEARCH  
PROPOSAL WRITING AND THESIS WRITING

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

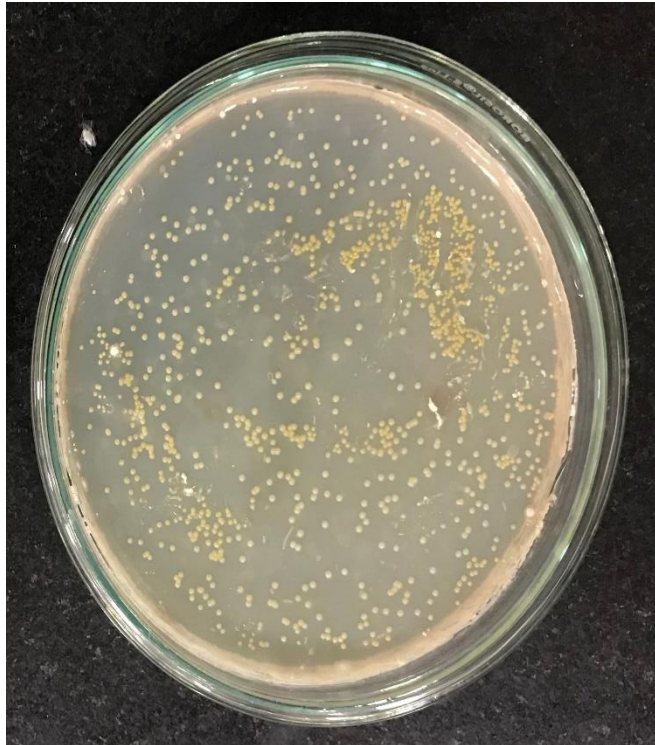
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**COST: Rs. 5900/-**

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**ELIGIBILITY: NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY  
, MICROBIOLOGY , LIFE SCIENCE**

## ONE MONTH PROGRAMS



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**PROGRAM-11** PROGRAM CODE: CBPL—11 SOIL AND WATER  
MICROBIOLOGY

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**DURATION:** 4-5 WEEKS (1 MONTH)

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**PROGRAM FEATURES:**

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1) HANDLING OF ALL MICROBIOLOGY INSTRUMENTS

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2) ISOLATION OF NITROGEN FIXING BACTERIA-AZOTOBACTER

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3) ISOLATION OF SULPHUR OXIDISING BACTERIA

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4) cfu COUNT OF WATER SAMPLES AND MORPHOLOGICAL IDENTIFICATION  
OF ISOLATED MICROBES

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**CERTIFICATE WILL BE PROVIDED AT THE END OF THE PROGRAM**

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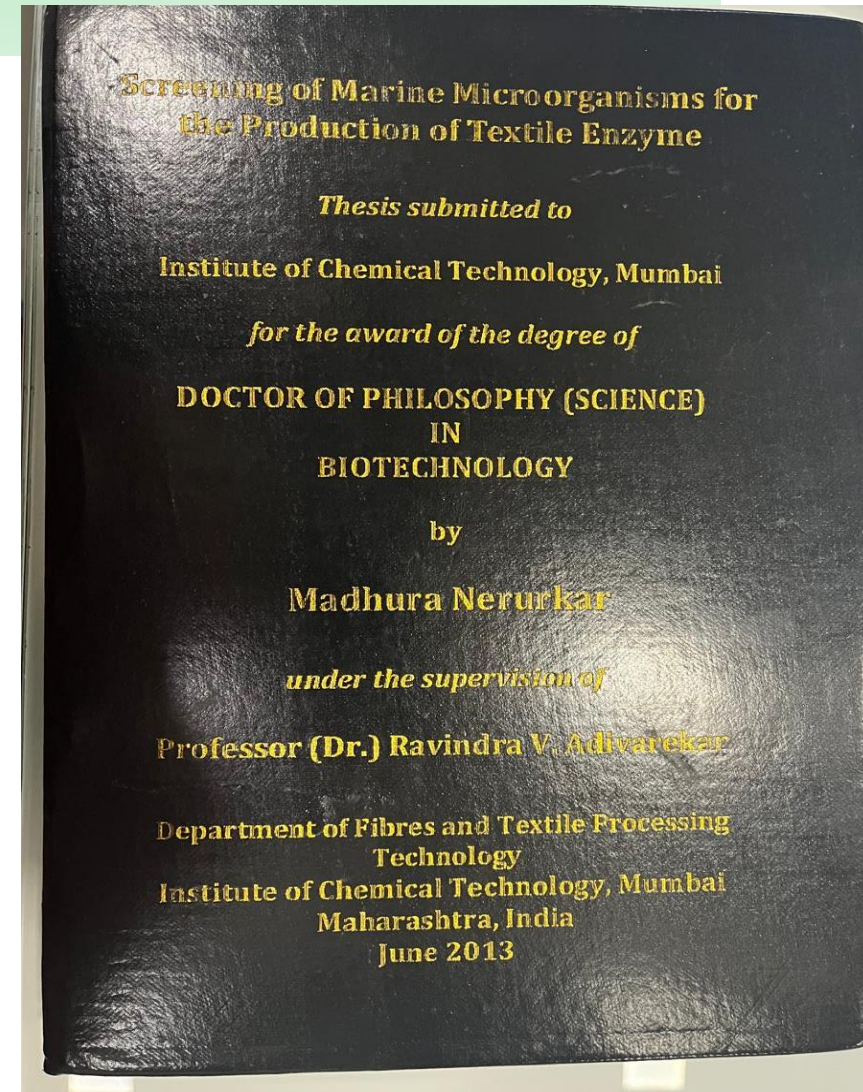
**COST: Rs. 5900/-**

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**ELIGIBILITY: NON MICRO PEOPLE, BSE & MSC B.TECH BIOTECHNOLOGY  
, MICROBIOLOGY , LIFE SCIENCE**

# CALANTHA RESEARCH BASED PROGRAMS

- Elevate your research idea into a Constructive and Skill driven Project through our research assistance/Dissertation Program
- Study, Identify Gap Research Analysis, Research Topic Selection, Synopsis, Guidance for Publication
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- Data Interpretation
- Eligibility - pre / pursuing Phd students



# DISSERTATION / LONG TERM INTERNSHIPS PROGRAMS

DURATION – 3 TO 6 MONTHS

FOR B.Sc / M.Sc/ B.Tech / M.Tech / Ph.D STUDENT

Specializations in: Biotechnology, Microbiology, Biochemistry, Life Sciences, and Allied Fields

## WHAT WE OFFER

1. Access to well-equipped laboratory and research facilities
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5. Project presentation and evaluation
6. Certificate of Completion upon successful project submission.
7. Subjects related field trip .

## RESEARCH TOPIC COVER

- ☐ MICROBIAL PRODUCTS AS GIVEN BELOW
1. **Enzyme** – production kinetics & Application .
  2. **Polysaccharides** – carbohydrate based polymers produced by bacteria & fungus.
  3. **Colourants** - production of microbial pigments as a prospect of natural.
  4. **Biosurfactants** – surfactants produce through microbial pathways.
  5. **Organic Acid** - Production using Agro – waste.

## FOCUS AREA & INSTRUMENT TRAININGS

1. Production of microbial product using shake flask & lab scale fermentor.
2. Upstream and downstream techniques .
3. Purification by column chromatography.
4. SDS PAGE Analysis.
5. Calculation of normality/ molarity
6. Exposure to new instruments