



# HEBER ANALYTICAL INSTRUMENTATION FACILITY (HAIF)

## BISHOP HEBER COLLEGE (Autonomous)

(Affiliated to Bharathidasan University)

Nationally reaccredited with 'A' Grade by NAAC with a CGPA of 3.58 out of 4

Recognized by UGC as "College of Excellence" | 'Star College' Status by DBT

DST-FIST Sponsored College under 'College as a Whole' Scheme

Tiruchirappalli - 620 017



## Summer Internship

(15<sup>th</sup> May – 15<sup>th</sup> June 2019)

### Physical Sciences

#### Physics

1. Nano structured thin film device fabrication, characterization and its applications.
2. Synthesis of nano materials, characterization and its application.
3. Growth and characterization of Bio and Non-liner optical crystalline materials.

#### Chemistry

4. Spectral and analytical techniques of chemistry.

### Life Sciences

#### Bio-Technology

1. Detection of food borne pathogens from various food samples using PCR.
2. In vitro regeneration of endangered species through plant tissue culture.
3. Maintenance and establishment of cell lines.
4. Basics of molecular techniques – Blotting, Electrophoresis.
5. Isolation & Characterization of proteins using FPLC.
6. Separation of proteins using SDS- PAGE.
7. Production and Screening of ethanol using bioreactor (FERMENTOR).
8. Growth characterization of renal stones and antiurolithiatic activity of the medicinal plants.

#### Zoology

9. Probing of reproductive hormone levels using ELISA.
10. Isolation, screening and purification of antimicrobial antibiotics from bacteria using GC-MS and Fermentor.

#### Botany

11. Concept of conservation for medicinal plants.
12. Bio synthesis and characterization of Nanoparticles through GC-MS analysis.
13. Antimicrobial and antioxidant activity of medicinal plants.
14. Bioactive principle of medicinal plant through GC-MS.
15. Evaluation, extraction and separation methods in medicinal plants.