

**UNIVERSITY COLLEGE OF ENGINEERING ( BIT CAMPUS )  
ANNA UNIVERSITY TIRUCHIRAPPALLI**

**Placement Brochure – 2023  
B.Tech Petrochemical Technology  
(NBA Accredited)**

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# THE INSTITUTE



University College of Engineering, BIT - Campus is an Institute of Excellence in Technical Education under Anna University, Chennai ([www.aubit.edu.in](http://www.aubit.edu.in)). This institute is formerly known as Anna University Tiruchirappalli and it is located in 10 km away from Tiruchirappalli International Airport on Pudukottai highway. The institute is offering 12 UG programme and 6 PG programme. The Department of Petrochemical Technology, UCE (BIT- campus), Tiruchirappalli was established by Bharathidasan University (Now under the umbrella of Anna University) in the year 1999 .



# DEPARTMENT OF PETROCHEMICAL TECHNOLOGY

1. Bharathidasan Institute of Technology Anna University, Tiruchirappalli was established in the year 1999 as one of the specialized Departments of the School of Engineering and Technology, Bharathidasan University, Tiruchirappalli with a view to impart high quality technical education.
2. The Department offers & Tech in Petrochemical Technology since 1999, offered M.Tech in Energy conservation and management from academic year 2009 -10 to 2012-13 and offering Doctoral programme in Chemical, Energy and Environmental areas from 2009. Currently five teaching staff members of the department and 16 research scholars are pursuing their PhDs.
3. The Department received two DST funded projects and one collaborative DBT funded project for Rs 65.13 lakhs. The department has generated consultancy funds for the worth of Rs. 45.7 Lakhs from industries like Sandoz, city corporation etc..



# VALUES

## Vision

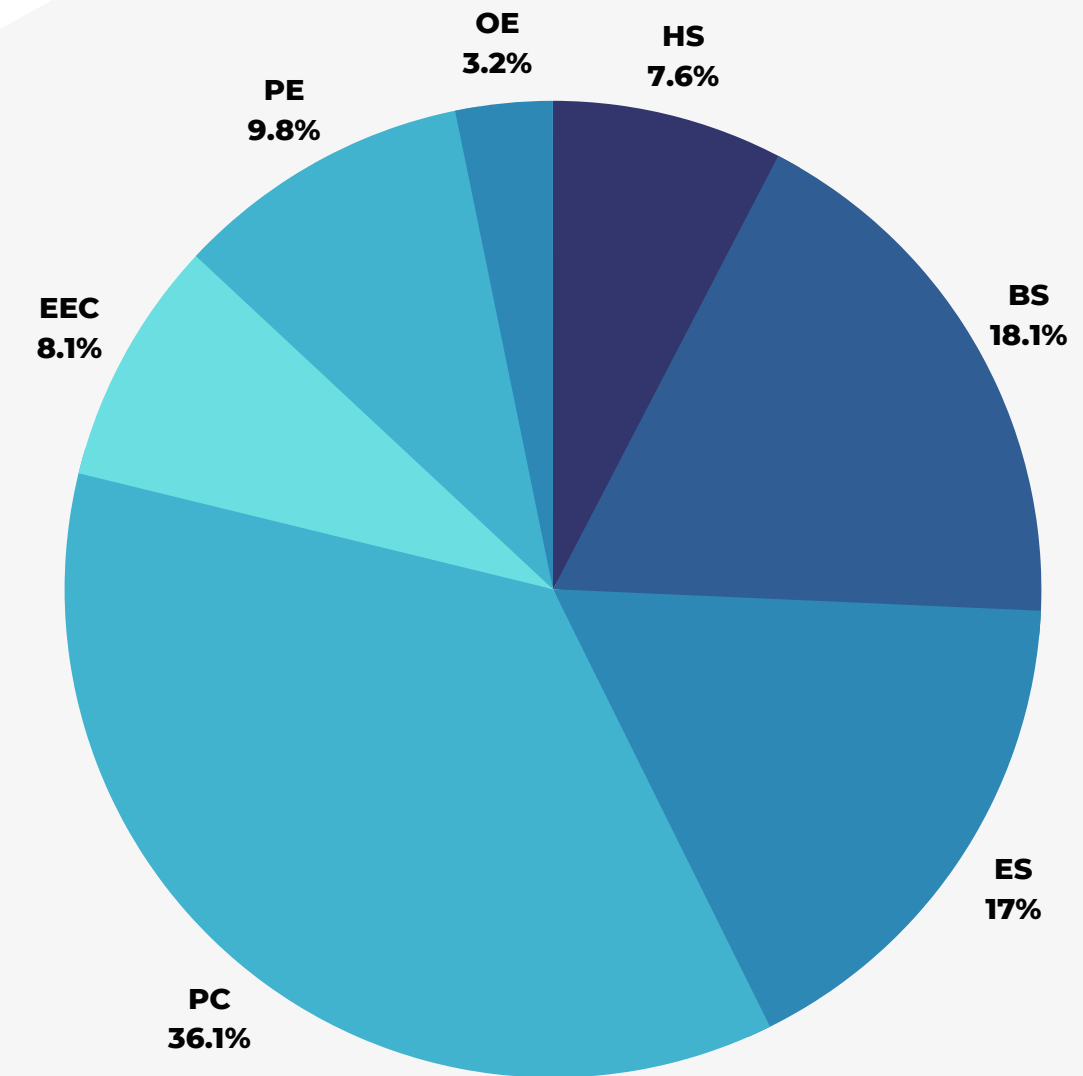
TO BE A DEPARTMENT OF EXCELLENCE  
IN THE FIELD OF PETROCHEMICAL  
TECHNOLOGY

## Mission

- TO CRAFT THE STUDENTS AS POTENTIAL TECHNOLOGISTS ENDOWED WITH PRAGMATIC SKILLS.
- TO PRODUCE COMPETENT ENGINEERS TO IDENTIFY THE EMERGING INDUSTRIAL, SOCIETAL NEEDS AND ADDRESS THE SAME THROUGH INNOVATIVE AND ECO-FRIENDLY SOLUTIONS.
- TO FULFIL THE ASPIRATIONS AND EXPECTATIONS OF THE FUTURE GENERATION BY DESIGNING SUITABLE ACADEMIC, RESEARCH AND EXTENSION PROGRAMMES.

# CURRICULUM

| S NO | Subject Area                             | SEM - I   | SEM - II  | SEM - III | SEM - IV  | SEM - V   | SEM - VI  | SEM - VII | SEM - VIII | Credit Total |
|------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|--------------|
| 1    | TOTAL Humanities and Social Sciences(HS) | 4         | 4         | 0         | 0         | 0         | 3         | 3         | 0          | 14           |
| 2    | Basic Science (BS)                       | 12        | 12        | 4         | 5         | 0         | 0         | 0         | 0          | 33           |
| 3    | Engineering Science (ES)                 | 9         | 6         | 14        | 2         | 0         | 0         | 0         | 0          | 31           |
| 4    | Professional Course (PC)                 | 0         | 3         | 8         | 15        | 14        | 17        | 6         | 3          | 66           |
| 5    | Employability Enhancement Courses(EEC)   | 0         | 0         | 0         | 0         | 1         | 0         | 2         | 12         | 15           |
| 6    | Professional Electives (PE)              | 0         | 0         | 0         | 0         | 3         | 3         | 9         | 3          | 18           |
| 7    | Open Electives (OE)                      | 0         | 0         | 0         | 0         | 3         | 0         | 3         | 0          | 6            |
|      | <b>TOTAL</b>                             | <b>25</b> | <b>25</b> | <b>26</b> | <b>22</b> | <b>21</b> | <b>23</b> | <b>23</b> | <b>18</b>  | <b>183</b>   |





# CURRICULUM

| CHEMICAL ENGINEERING SUBJECT        | PETROLEUM ENGINEERING SUBJECTS                   |
|-------------------------------------|--|
| INDUSTRIAL CHEMICAL TECHNOLOGY      | PETROLEUM EXPLORATION AND EXPLOITATION TECHNIQUE |
| FLUID MECHANICS                     | NATURAL GAS ENGINEERING                          |
| PROCESS CALCULATIONS                | POLYMER TECHNOLOGY                               |
| CHEMICAL ENGINEERING THERMODYNAMICS | PETROLUEM SECONDARY PROCESS TECHNOLOGY           |
| HEAT TRANSFER                       | PETROCHEMICAL DERIVATIVE                         |
| MASS TRANSFER                       | PETROLEUM PROCESS EQUIPMENT AUXILIARIES          |
| CHEMICAL REACTION ENGINEERING       | PROCESS INSTRUMENTATION                          |
| CATALYTIC REACTION ENGINEERING      | SAFETY AND RISK MANAGEMENT                       |
| PROCESS DYNAMIC AND CONTROL         | EQUIPMENT DESIGN AND DRAWING                     |





## FLUID AND SOLID OPERATIONS LABORATORY

- Centrifugal pump
- Venturi meter
- Orifice meter
- Rotameter
- Weir
- Pipes and fitting
- Helical & spiral coils
- Packed bed
- Leaf filter
- Jaw crusher
- Ball mill
- Roll crusher
- Drop weight crusher
- Cyclone separator
- Drag on sphere
- Effectiveness of screen
- Sieve analysis
- Batch sedimentation

## CHEMICAL ANALYSIS LABORATORY

- Pensky martens closed cup apparatus
- Cleveland open cup apparatus
- Cloud / pour point apparatus
- Saybolt viscometer
- Redwood viscometer
- Bomb calorimeter
- Orsat apparatus
- Uv-visible spectrophotometer
- Muffle furnace
- Acid / iodine value of oil
- Silica/ mixed oxide content of cement
- Total fatty matter of soap







## HEAT TRANSFER LABORATORY

- Composite wall
- Shell and tube heat exchanger
- Double pipe heat exchanger
- Horizontal/ vertical condenser
- Packed bed
- Stefan boltzmann apparatus
- Natural/ forced convection set up
- Emissivity measurement set up
- Helical coil
- Heat exchanger in open pan evaporator
- Boiling heat transfer • Heat transfer in agitated vessel
- Single/multiple effect evaporator set up
- Bare and finned tube heat exchanger

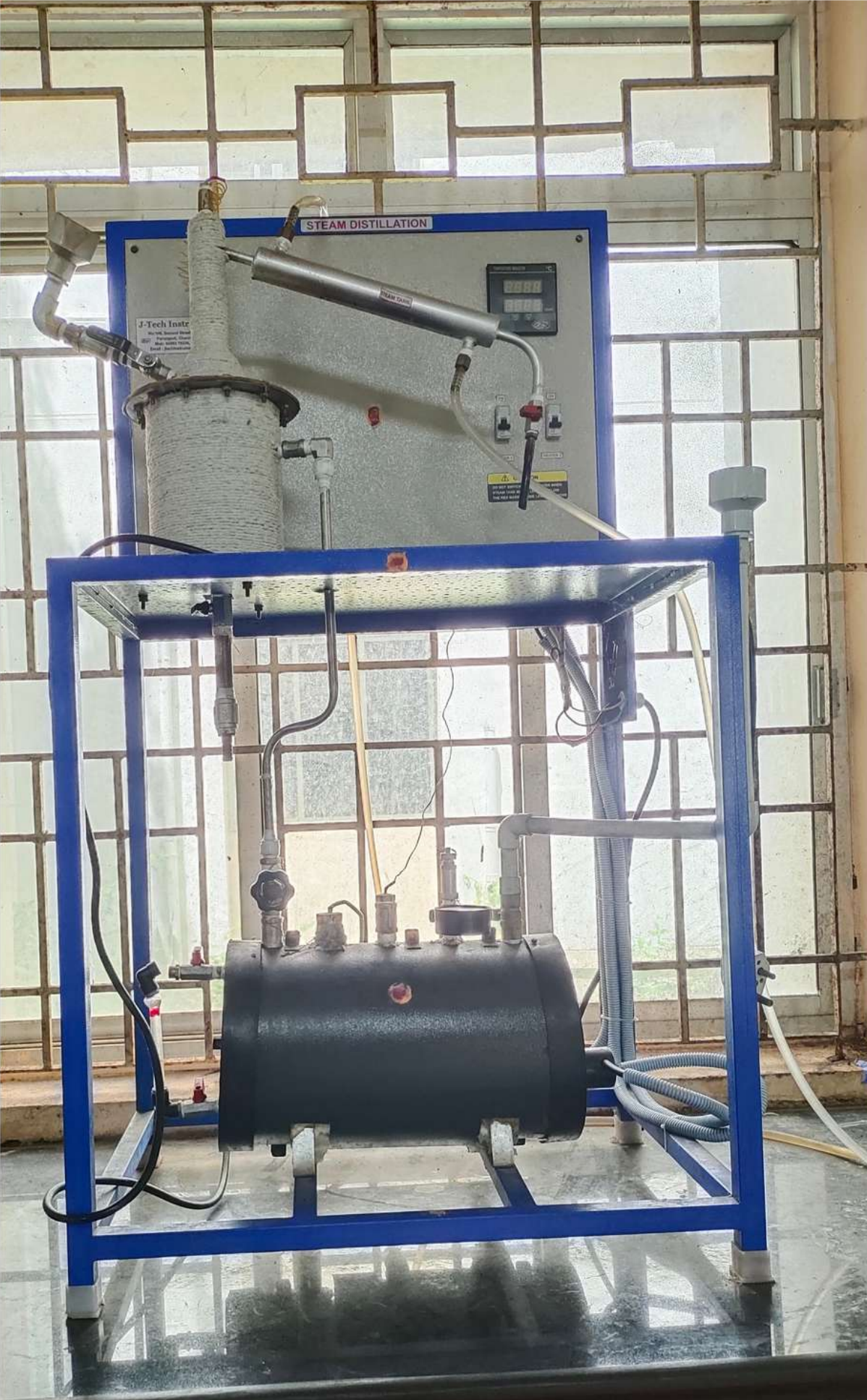


## PETROCHEMICAL ANALYSIS

- Bomb calorimeter
- Refractometer
- ORSAT apparatus
- KF-Titrator
- UV- Visible spectrophotometer.
- Gas chromatography
- Total acidity determination
- Sulphur content determination
- Biodegradation of petrochemicals
- Dynamic viscosity measurement







## MASS TRANSFER LABORATORY

- Packed column
- Packed column
- Steam distillation setup
- Simple distillation setup
- Liquid-liquid extractor
- Surface evaporation set up
- Adsorption column set up / Adsorption studies using conical flask
- Leaching column set up / Leaching studies using conical flask
- RDC
- Tray dryer

## PETROLEUM TESTING

- Conradson apparatus
- KF apparatus
- API gravity apparatus
- Aniline point apparatus
- Corrosion testing apparatus
- ASTM distillation apparatus
- Flash / fire point apparatus
- Calorific value measurement
- Smoke point determination
- Cloud/Pour point apparatus
- Penetration index
- Softening point
- Ductility determination





## RESEARCH LABORATORIES

- Digital homogenizer (ultra turrex - T 25 with drive unit, IKA germany).
- Hybridization incubator
- Shimadzu make uv-vis spectrometer with diffuse reflectance spectroscopy (DRS assembly)
- Hot air oven, ph meter, and water double distillation unit
- Precision balance ( accuracy: 0.0001 gm)

## LEARNING EXPERIENCE IN SOFTWARE'S / MODELS

- SCADA
- Fabrication of device to recover crude oil from marine environment
- RDC column
- Design expert software (version 8)
- Chemdraw software
- Edrawmax.







## RESEARCH LABORATORIES

- Reciprocating pump
- Gas chromatography
- Sono chemical reactor
- Equal size CSTR in series
- Refractometer
- Brook field viscometer
- Dean & stark moisture content determination
- Specific gravity apparatus
- Sonicator • Microwave assisted extractor
- Autoclave vertical • Magnetic stirrer with hot plate
- Induction stove
- Rotary vacuum evaporate
- Bomb calorimeter
- Photochemical reactor
- Rotary vacuum dryer
- Centrifuge

## REACTION ENGINEERING AND PROCESS CONTROL LABORATORY

- Batch Reactor • Plug flow reactor
- CSTR • Packed bed reactor
- Combined flow reactor (PFR – CSTR)
- Non-isothermal CSTR
- Sonochemical reactor
- Photochemical reactor
- Level control system
- Flow control system
- Temperature control system
- control valves
- Interacting and non-interacting systems
- Cascade control trainer
- I & II order system





# LIBRARY

- **BIT Central library is the knowledge center of the institute for an academic and research activities. It has been catering to the information needs of the intellectuals and ignited minds of the institute.**
- **It covers an area of 748 sqm spanning the ground floor and first floor with an ample study space (180 sqm). The ground floor is Air-conditioned.**
- **It has the following facilities for the faculty, staffs and the students: Multimedia, Internet, reprography and a CD-ROMs collection.**
- **The college subscribes to most of the major technical journals including American Chemical Society, Blackwell Publishing Ltd, Cambridge University Press, Elsevier, Emerald Group, IEEE, John Wiley& Sons, Professional Engineering Publishing Ltd, Nature Publishing Group, National Research Council of Canada, Sage Publications, SIAM, Society of Manufacturing Engineers, Springer Science & Business Media, Taylor and Francis, Urban& Fischer Verlag journals.**
- **A library committee headed by the Dean, comprising of all the Heads of Departments, and Student Representatives, meets every semester to discuss the functioning of the Library.**



# Alumni







# Contact Us

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