



BITS Pilani
Pilani Campus

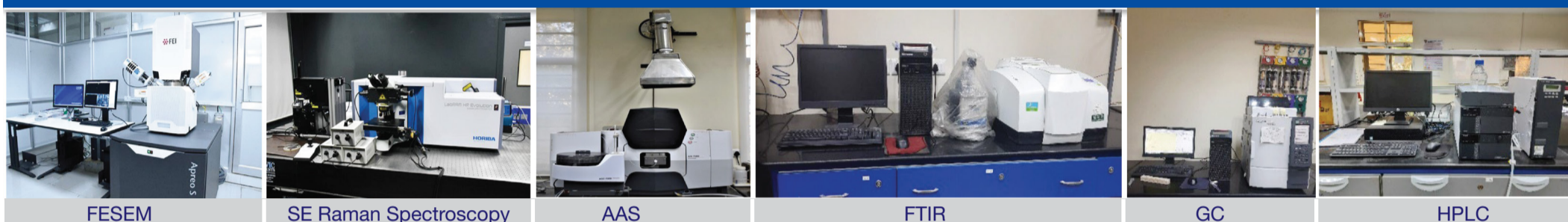
Department of
CHEMICAL ENGINEERING
BITS Pilani, Pilani Campus
Pilani 333031, Rajasthan

Admissions open for
Ph.D. PROGRAM in
Chemical Engineering for I Sem 2023-24

Application form
Submission Deadline
June 26, 2023

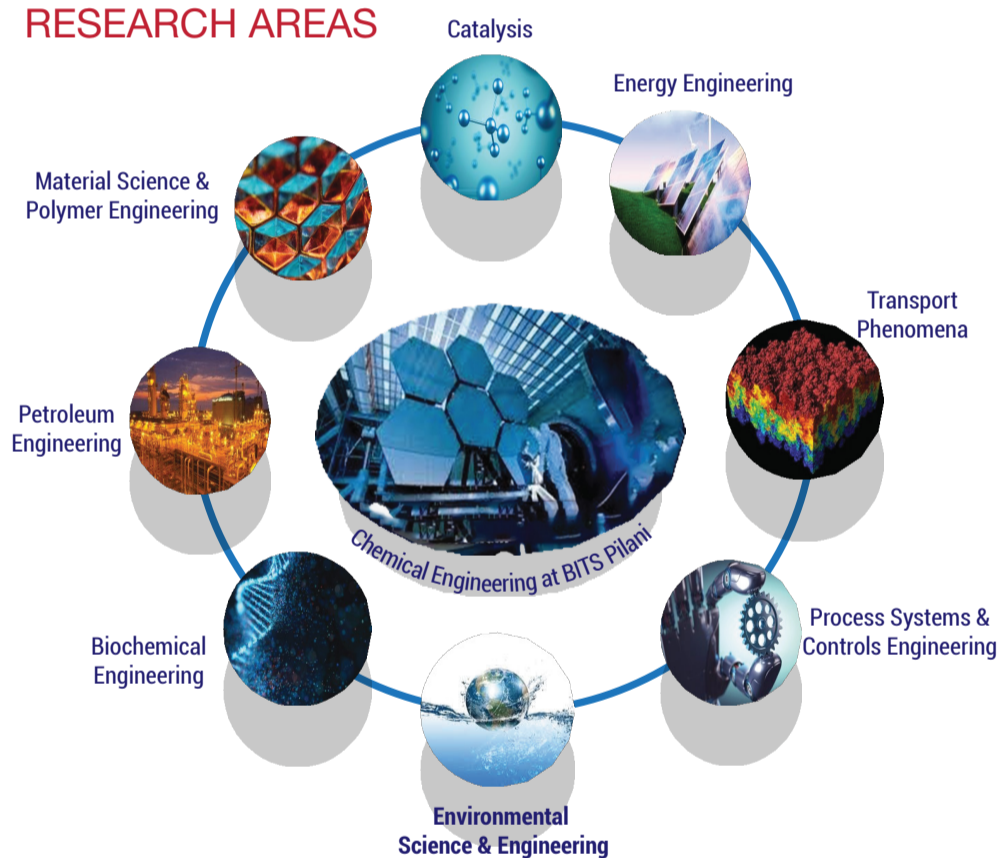
Looking for **bright** and **dedicated scholars** who are passionate about **research**

Enjoy a Rewarding **RESEARCH** Career – Join **BITS Pilani**, Where **“BRILLIANCE MEETS EXCELLENCE”**



Integration of Fundamental and Application-Oriented Research: An Interdisciplinary Approach

RESEARCH AREAS



RESEARCH FACILITIES @ DEPARTMENT

- AAS, GC, DSC, FTIR, TGA, DT-TGA, HPLC
- BET Surface area analyser, UV-VIS spectrophotometer
- High Speed Imaging, Dynamic Foam Analyser

CENTRALIZED RESEARCH FACILITIES @ INSTITUTE

- XRD, FESEM-EDX, AFM, Py-GC-MS/MS, XPS
- NMR, Raman Spectroscopy, Confocal Microscopy

COMPUTATIONAL MODELING & VISUALIZATION SOFTWARE

- High Performance Computing Cluster, Aspen-HYSYS, ANSYS, COMSOL, MATLAB, SYSTAT gPROMS, CosmoTherm
- Open Source Coding Platforms and Data Visualization tools

ELIGIBILITY CRITERIA

- ME / M.Tech/BE/ B.Tech/—minimum of 60% aggregate in Chemical Engg, Material Science & Engg, Mechanical Engg, Civil Engg, Electrical Engg, Electronics Engg & Communications, etc.
- MSc—minimum of 60% aggregate in life sciences, Physics, Nanotechnology, Polymer Technology, Plastic technology, Materials Science, Chemistry, Mathematics etc.



BITS Admission Website
QR code

SCHOLARSHIP

Fellowship of ₹28,000 - 31,000/- per month as per intake qualification

PHD TOPICS / ONGOING RESEARCH PROJECTS

For details check Department webpage

<https://www.bits-pilani.ac.in/pilani/chemicalEngineering/ChemicalEngineering>

- Microparticle and air flow in human anatomy.
- Conversion of agricultural residues to value added materials (catalysts, adsorbent, etc.) And their applications.
- Development of hybrid polymer nanocomposite coatings for stealth technology applications.
- Integrating ML and CFD for Simulation of multiphase-flow for fundamental flow visualization and improvement of industrial reactors.
- Development of microporous polymer-metal frameworks for pollutants removal.
- Molecular modelling of nanomaterials and biomaterials for energy and environmental applications.
- Design of soft sensor and advanced controllers for reactive distillation column.

RESEARCH FACILITIES TO CARRY OUT THE ABOVE PROJECTS

High Pressure Reactor	Reactive Distillation Setup	Vacuum Degassing Setup
2 – Port Vector Network Analyzer	CFD software ANSYS FLUENT 22	Photocatalytic Reactor
Probe Ultra-sonicator	CFD software COMSOL Multiphysics 5.6	Steam Reforming Reactor
Waveguide Setup along with Coaxial to Waveguide Adaptors	High Performance Computing Cluster, GROMACS, LAMMPS and Gaussian Software	Particle Imaging Velocimetry (PIV) Flow Visualization System
Syringe Pump, Vacuum Oven	MATLAB and ASPEN	Compression Molding Setup
DSC,TGA,VNA, XRD, FESEM, FTIR	Planetary Resin Mixer	Bench-scale Recirculating Fluidized Bed

CONTACT INFORMATION

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See departmental webpage details:

www.bits-pilani.ac.in/pilani/chemicalEngineering/ChemicalEngineering



Department Website
QR code

HOW TO APPLY

Prescribed application forms available at
www.bitsadmission.com/phdmain.aspx

**Apply Before
June 26, 2023**

