

## Masters Program

# M. E. in CHEMICAL ENGINEERING (2017-19)



## BITS Pilani

### Hyderabad Campus

Jawahar Nagar, Medchal-Malkajgiri District,  
Telangana, Hyderabad - 500078

## BITS- Pilani

Birla Institute of Technology and Science, Pilani - Hyderabad campus is one of the premier technical and science institutes of higher learning in India. BITS is a dream come true of its founder late Mr. G. D. Birla - an eminent industrialist, a participant in Indian freedom struggle and a close associate of the Father of Nation late Mahatma Gandhi. During its 50 years of existence as an institute of higher learning, BITS Pilani has expanded beyond Pilani to three more campuses at Dubai, Goa and Hyderabad. Today, BITS offers UG, PG and PhD programmes to over 11,000 students in various disciplines including Science and Engineering. BITS Pilani has been accredited by the NAAC with grade A.

## Dept. of Chem. Engineering

Department of Chemical Engineering at BITS Pilani, Hyderabad campus is determined to nurture new talents and create leaders and entrepreneurs who can develop world class clean and green technologies. At present, the department has 13 research scholars working in three live projects sponsored by DST and CSIR. Our faculty have completed 6 sponsored projects worth of 90 lakhs and published more than 100 articles in national and international journals and more than 11 registered patents to their credit. Department is equipped with state-of-the art experimental facilities such as Fluidised bed reactor, Micro GC, Super mass colloidier, Bench top Bioreactor and computational tools such as ASPEN, COMSOL and ANSYS. Currently department has more than 200 undergraduate and 14 M.E students.

## Faculty Profiles - Area of Research

Prof. I. Sreedhar (Ph.D., BITS Pilani)  
Catalysis and Reaction Engineering

Prof. Srikanta Dinda (Ph.D., IIT Kharagpur)  
Petroleum Refining and Separation Technology

Dr. D. Purnima (Ph.D., IIT Delhi)  
Polymer Process Engineering

Dr. Balaji Krishnamurthy (Ph.D., USA)  
Fuel cells and Batteries

Dr. Ramesh Adusumalli (Ph.D., Austria)  
Pulp & Paper, Polymers and Composites

Dr. Karthik C. Venkateshan (Ph.D., Canada)  
Materials Science and Engineering; Biomaterials

Dr. Asma Ahmed (Ph.D., USA)  
Biofuels and Biopharmaceutical products

Dr. Vikranth Kumar Surasani (Ph.D., Germany)  
Process Systems Engineering; Reactive Transport Modeling; CFD

## M. E Program Highlights

- Candidates admitted to a Higher Degree Programme will also be considered for teaching assistantship with stipend up to Rs. 11,200/- per month and / or partial tuition fee waiver.
- Research/industry training oriented syllabus with one year of dedicated research or 6 months of industry training. The main objective of the ME program is to inculcate students into becoming well versed in wide variety of problem-solving based experimental and modeling skills so that they are industry ready and equipped to come up with well thought out logical and feasible solutions for engineering problems.
- The ME program is unique in that it provides students an intense lab-oriented training and the program is equipped with access to characterization instruments (XRD, DSC, TGA, FTIR, UV, LSM, OM, XRF, Rheometer etc.)

## Course Curriculum (One year Dissertation)

Year	Semester I	Semester II
I	4-5 courses (16 credits)	4-5 Courses (16 credits)
II	Dissertation (32 credits)	

## Core Courses (Compulsory)

CHE G622 Adv. Chem. Engg. Thermodynamics  
 CHE G523 Math. Methods in Chem. Engg.  
 CHE G641 Reaction Engineering  
 CHE G552 Advanced Transport Phenomena  
 BITS G661 Research Methodology

## Elective Courses

(any three for one year Dissertation option)

CHE F421 Biochemical Engineering  
 CHE F413 Process Plant Safety  
 CHE G512 Petroleum Refining and Petrochemicals  
 CHE G522 Polymer Technology  
 CHE G525 Chem. Process and Equipment Design  
 CHE G528 Nano Science & Technology  
 CHE G529 Paper and Pulp technology  
 CHE G532 Alternate Energy Resources  
 CHE G533 Petroleum Product Characterization  
 CHE G551 Advanced Separation Technology  
 CHE G617 Petroleum Refinery Engineering  
 CHE G619 Process Intensification  
 CHE G620 Energy Integration Analysis  
 CHE G554 Computational Fluid Dynamics  
 CHE G556 Electrochemical Engineering

## How to get M. E. Admission

Prospective candidates interested in joining the M. E. in Chemical Engineering Program needs to write the online qualifying examination "BITSAT" either on 13<sup>th</sup>, 14<sup>th</sup> or 21<sup>st</sup> May 2017. Last date for applying to BITSAT is 29<sup>th</sup> April, 2017. It is a 2.5 hrs exam containing 100 questions totaling 300 Marks, split in to two parts. **Part A:** Maths, English Language Skills & Logical Reasoning (30 Marks, 45 mints); **Part B:** Process Control, Chemical Process Calc., Chemical Engg thermo., Chemical Techn., Fluid mechanics, Heat and Mass transfer, Mechanical operations, Reaction Engg, Plant design and economics. (70 Marks, 105 min). For further details refer our admission website: <http://www.bitsadmission.com>

## Placements

M.E Chemical (2015-17 ) student got placed in Thirumalai Chemicals, Rao IIT Academy and Aizant Drug Research. Students also got admitted to Ph.D. program (USA).

## Student opinion

Namrata Upreti: I did my B.Tech from BANASTHALI UNIVERSITY, RAJASTHAN and got to know about M.E Chemical program through the official BITS site. I gave BITSAT exam in May 2016. I am going to complete my first year of M.E with intensive exposure of lab oriented courses. I have opted for one year dissertation.

Bithunshal UB: I completed B. Tech from GEC Kozhikode, Kerala and started my masters in BITS HYB in 2015. It was a wonderful research experience in BITS with one year dissertation program after one year of regular class work. Here faculties are working in almost all fields of chemical engineering, so it is possible to choose a research field according to student's taste. I worked mainly in computational chemical engineering and CFD. A great learning experience and now placed in Aizant Drug Research as a Research Scientist. I am really feeling happy.

## Contact:

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**Head, Department of Chemical Engineering**

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