Brochure for Research Aspirants PhD Program 2018 - 19

Department of Chemistry

IIT Hyderabad

INDIAN INSTITUTE OF TECHNOLOGY HYDERABAD
The Department of Chemistry at IIT Hyderabad has been committed since its inception in 2008 to the Chemical Education of Undergraduate and Postgraduate Chemistry students. Currently the Department has 14 young and dynamic faculties from diverse contemporary areas of research. Our remarkable student to faculty ratio of 4:1 helps in promoting personalized teaching and research activities. Besides Department is dedicated to Excellence in Chemistry by establishing research programs for actively undertaking Basic and Applied research in current paradigms of Chemical Sciences and interdisciplinary areas.

Also to accentuate, our M.Sc. program has a one year research project apart from course work, to give them a flavor of chemical research and make them “research ready.” We continue to attract bright and interested students to our programs in our endeavor to be one of the foremost Chemistry Departments in the country.
Dr. Melepurath Deepa
Head & Associate Professor
Research areas: Synthesis and electrochemistry of transition metal oxides, conducting polymers and composites, electrochromic films and devices.
Contact:mdeepa@iith.ac.in  +91 (40) 2301 6024

Dr. G. Satyanarayana
Associate Professor
Research Areas: Transition-metal catalysis, Development of new methodology and Total synthesis and drug diversity oriented synthesis.
Contact :gvsatya@iith.ac.in  +91 (40) 2301 6054

Prof. Faiz Ahmed Khan FNASE, FASc
Professor
Contact:faiz@iith.ac.in  +91 (40) 2301 6084

Prof. Ch. Subramanyam
Professor
Research areas: Catalysis, Nanomaterials and Energy Systems
Contact :csubbu@iith.ac.in  +91 (40) 2301 6050

Dr. Tarun K. Panda
Associate Professor
Research Areas: Main group chemistry, Coordination chemistry, Lanthanide chemistry, Homogeneous catalysis, X-ray Crystallography and structure analysis
Contact :tpanda@iith.ac.in+91 (40) 2301 6036
Dr. Somnath Maji
Assistant Professor
Contact: smaji@iith.ac.in +91 (40) 2301 6076

Dr. G. Prabuankar
Associate Professor
Research Areas: Organometallic Synthesis, Late Transition Metal Chemistry, Heavier Main Group P-Block Chemistry, Molecular Activation, Molecules to Materials, Molecules for Medicines.
Contact: prabu@iith.ac.in +91(40)2301 6089

Dr. Bhabani S. Mallik
Associate Professor
Research Areas: Computational Catalysis, Electrolytes for Li-ion Battery, Ultrafast Spectroscopy, Bio molecular Solvation
Contact: bhabani@iith.ac.in +91 (40) 2301 7051

Dr. D. S. Sharada
Associate Professor
Research Areas: C-H Functionalization, Bio-inspired organic transformations, Benign & Sustainable chemistry, Asymmetric Synthesis, Photoredox catalysis
Contact: sharada@iith.ac.in +91 (40) 2301 7058

Dr. Surendra K. Martha
Associate Professor
Research Areas: Materials Electrochemistry with Special emphasis on Lead-acid, Li-ion, Sodium Ion batteries and super capacitors
Contact: martha@iith.ac.in +91 (40) 2301 7089

FACULTY & RESEARCH
Dr. Ashutosh Kumar Mishra
Assistant Professor
Research Areas: Bioorganic Chemistry
Contact: akm@iith.ac.in  +91 (40) 2301 7022

Dr. Surajit Maity
Assistant Professor
Research Areas: Multidimensional laser spectroscopic study on molecular level investigation of complex reactions pathways, isolation and characterization of reactive intermediates, accurate measurement of dissociation energies of gas-phase complexes, structure and bonding in isolated metal-organic complex intermediates, and biomolecules in gas phase.
Contact: surajitmaity@iith.ac.in  +91 (40) 2301 6175

Dr. Jai Prakash
Assistant Professor
Research Areas: Inorganic Chemistry, Strongly Correlated Materials for Thermoelectric & Superconducting Applications, Small Molecule Crystallography, Metal Chalcogenides & Intermetallic
Contact: jaiprakash@iith.ac.in  +91 (40) 2301 6174

Dr. K. Venkata Rao
Assistant Professor
Research Areas: Functional Organic Materials; Supramolecular Chemistry; Organic Semiconductors.
Contact: kvrao@iith.ac.in

Dr. K. Venkata Rao
Assistant Professor
Research Areas: Functional Organic Materials; Supramolecular Chemistry; Organic Semiconductors.
Contact: kvrao@iith.ac.in
ACADEMICS……

The undergraduate & postgraduate program at Department of Chemistry encompasses a wide variety of courses which prepares the students for both Industry as well as academia.

Currently the department is home to 73 PhD. Students and 58 M.Sc. Students apart from a 25+ project and postdoctoral Fellows. The Ph.D. Scholars have wider choice of elective courses from various contemporary topics of chemical sciences (See http://chemistry.iith.ac.in/courses.html)
The Department is enthusiastically involved in various cutting-edge and exciting research areas. Our strong commitment to research is evidenced by 28+ crores INR of Research Funding and publications in top most international journals leading to a total of 350+ publications with 8350+ citations.

The impact of this research has led to the bestowment of CNR Rao National prize, Swarnajayanthi fellowship, NASI-Young Scientist award, Dr. B. M. Birla Science Prize, Theime Chemistry Journal award, Society medals (CRSI), Various National and International fellowships, Editorship/membership of Editorial boards of International Journals, etc as well as Institute teaching excellence awards on our Department faculty.

The Department is also actively involved in conducting workshops, In-House Symposium, Industry day, Safety seminars and outreach activities for technological awareness among rural children. The Department has also hosted SERB-PAC meeting in Inorganic and Physical Chemistry in August, 2017.
Some of the high impact International Journals where we publish ............
Some of the high impact International Journals where we publish.............

280+ international journal publications in last 5 years
Facilities:

1. Multi-Mode Atomic Microscope
2. Powdered X-Ray Diffraction
3. 400 MHz NMR
4. HR-MS
5. Single Crystal XRD
6. Thermogravimetric Analysis
7. IR spectrometers
8. UV-Vis. spectrometers
9. Dispersive Raman Spectrometer
10. Photoluminiscence
11. Solar Simulator
12. ESR
13. CHNS Analyzer
Departmental Activities

In-House Symposium
TEQIP Workshop
IITH Industry Day
IITH Open Day
Safety seminars
Departmental seminars
SERB PAC meeting
**ELIGIBILITY CRITERIA:**

**For Regular Candidates:**
Master’s (MSc) degree in Chemical Sciences with good academic record.
Valid GATE-score/UGC-JRF/CSIR-JRF or DST INSPIRE or any other Self Scholarship.

**For Sponsored Candidates:**

**Category A:**
Students working under sponsored projects (i.e. DST, CSIR, BRNS, DBT, etc.) of Indian Institute of Technology Hyderabad (IITH), with valid GATE-score/CSIR-JRF/UGC-JRF/Lectureship (LS) at the time of joining the project are also eligible to apply for the PhD program (candidates from sponsored program are not eligible for any stipend from MHRD).

**Category B:**
Candidates working in reputed research/industrial organizations may also apply under sponsored Ph.D. program (candidates from sponsored program are not eligible for any stipend from MHRD).
A proof of sponsorship from parent organization must be provided at the time of interview.
The selected candidates must complete their coursework in the Department of Chemistry at IIT Hyderabad.

**SELECTION PROCESS:**

Department may follow certain cut-off criteria:
- Depending on the departmental requirement and based on the total number of applications received.
- Based on the number of applications received for individual research discipline.
- The number of applications received in preference to each research discipline (i.e. first preference given by the candidate).
- In general, more weightage will be given to the first choice of research interest (i.e. area of interest) given by candidates during the time of filling their application.
- SC/ST and OBC reservation will be implemented as per the Government rules.
- Rules set by the IITH Senate will be applied

**APPLICATION PROCEDURE & LAST DATE:**
Visit - www.iith.ac.in & http://chemistry.iith.ac.in for detailed information and Apply online
1. The candidate must mention very clearly about his/her qualifying exam details such as CSIR/UGC-JRF and/or GATE in appropriate columns.

2. Also, the candidate should provide the rank, score and valid date of his/her qualifying exam adequately in the respective columns.

3. Without fail, the candidate should mention his/her category (Gen/OBC-creamy layer or OBC-non-creamy layer or SC or ST).

4. Also, the candidate must specifically describe his/her area of interest (research discipline) as “Organic or Inorganic or Physical or Computational Chemistry”.

5. Incomplete applications will be rejected.

6. For more details of ongoing research interests in the “Department of Chemistry”, please visit below link:

   http://chemistry.iith.ac.in/faculty.html&
Come Join Us!!

Research is the process of going up alleys to see if they’re blind.
- Marston Bates

Contact Details:

Dr. D. S. Sharada
DPGC Convener
Department of Chemistry
Email: cy_phdadm@iith.ac.in

Institute Address:
Indian Institute of Technology Hyderabad
Kandi, Sangareddy – 502285, Telangana
Phone: 040-2301 6026
Fax: 040-2301 6032

Web: http://www.chemistry.iith.ac.in
http://www/maps/place/IIT+Hyderabad