

UGC Networking Resource Centre in Chemical Engineering (UGC-NRC-CE) Department of Chemical Engineering Institute of Chemical Technology (ICT), Mumbai

The University Grants Commission (UGC) has established a Networking Resource Centre in Department of Chemical Engineering, Institute of Chemical Technology (ICT) (a Deemed-to-be University under Section 3 of UGC Act 1956), Matunga, Mumbai 400 019, or its outstanding contribution to the field of Chemical Engineering.

The Department of Chemical Engineering is one of the top ranking CE departments in the country by all standards and is rated among the top CE departments in the world in terms of research productivity. The FIST programme of DST also has declared the department to be the best department in all Engineering departments in India. The TEQIP survey has also ranked ICT at number one in the country amongst TEQIP supported institutes. The CE faculty members are well known in their fields of expertise, linkages with industry and technology transfer in several areas. A number of collaborative academic programmes are in progress with several national and international institutes and CSIR labs.

The UGC NRC-CE in ICT has the following activities:

1. Research, training and skills development of faculty and research scholars through periodic discussions, regular workshops on frontier areas of Chemical Engineering.
2. Capacity building by mentoring faculty and departments of other Institutes for augmenting their research skills.
3. Facilitating researchers from other institutes/universities to carry out key experiments in collaboration with CE faculty of ICT.
4. Augmentation of Information Resource Facility of the Department to provide quality research support to other institutes/researchers.
5. To enhance and build state-of-the-art in-house research infrastructure.

Participation in the activities of the Centre

All faculty and researchers of UGC recognized university departments/institutes/engineering colleges offering degree programmes (B.E., M.E., M.Tech., Ph.D.) in Chemical Engineering or Chemical Technology and allied fields (including Chemical Sciences, Metallurgy, Ceramics, Polymers, Biotechnology) are eligible for participation in the activities of the Centre. Following options exist for the participation:

1. Faculty members, research students, post-doctoral fellows can attend summer/winter schools and workshops organized periodically consisting of lectures and hands-on exposure to experimental or modelling methods. Typically, 25–30 candidates will be enrolled for a school or workshop.
2. The Centre promotes collaborative research between faculty members of the Department of Chemical Engineering and faculty and researchers of participating institutes in the areas of mutual interests. It facilitates and provides help in carrying out key research experiments that can not be carried out elsewhere. The Centre is keen to impart scientific knowledge to young researchers who come from deficit laboratories. The Centre will meet the cost of the travel and other expenses according to the Institute's guidelines for the duration of the workshop/school and short term visits.
3. Faculty members can nominate undergraduate students for the summer research projects. The UG students will work with faculty members on a specific project along with senior Ph.D. students of the Department for a period up to six weeks (15th May to 30th June). The last date of nomination is **28 February** every year. The names of the selected candidates will be communicated by 31 March.
4. Faculty members from other engineering institutes can register for Ph.D. degree to upgrade their skills without having to spend complete duration of Ph.D. at ICT.

A faculty member at any of the eligible institutions, such as university departments, engineering colleges recognized by UGC, IIT, NIT, and interested in participating in any of the activities of the Centre, can contact **Professor V. G. Gaikar**, Head, Department of Chemical Engineering on vg.gaikar@ictmumbai.edu.in or v.g.gaikar@gmail.com. For more details and updated information as regarding Centre activities, please visit the Institute's website or write to us. Interested researchers can put up a brief proposal on the research activity in collaboration with a faculty member at the Centre.

Major thrust of research areas of UGC NRC-CE

- Development of Novel Reactors, Reactions and Separation Processes
- Computational Fluid Dynamics for Multiphase Systems
- Analysis of Multiphase Phenomena
- Novel Catalytic Materials and Processes
- Process Intensification and Green Technology
- Surfactant Science and Hydrotrophy
- Development of Organic Chemical Processes
- Adsorptive and Chromatographic Separations
- Cavitation Phenomena, Sonochemistry
- Drying of Industrial and Food Products
- Energy Engineering and Sustainable Developments
- Molecular Modelling for Separations
- Natural Product Extraction and Purifications