

UNIVERSITY INSTITUTE OF CHEMICAL TECHNOLOGY
KAVAYITRI BAHINABAI CHAUDHARI NORTH MAHARASHTRA UNIVERSITY,
JALGAON-425001 (M.S.), INDIA
Strategic Plan year 2020-2025

PREAMBLE

University Institute of Chemical Technology founded in the year 1994, has established its own identity in the field of Chemical Engineering and Technology (formerly known as UDCT). The Institute offers AICTE recognized five Bachelor of Technology (B. Tech.) and Five Master of Technology (M. Tech.) degree courses and pursues Ph. D. Research Programs in Science, Chemical Engineering, and chemical Technology to fulfil the growing demands of entrepreneurs, Technocrats and Scientists. Besides this, the Department has full-fledged and well-equipped Engineering Workshop, Sophisticated Instrumentation Centre (including instruments like FESEM, AFM, and XRD), Entrepreneurship Development Cell (EDC) and Training and Placement Cell. The Institute has received research project grants from various agencies like DST, CSIR, DRDO, UGC, AICTE, ISTRO etc. and has been covered under NON-SAP Scheme of UGC, FIST Scheme of DST and Innovative Programs of UGC (M. Tech. in Nano Science and Technology) as well as TEQIP-III, World Bank. Institute has been covered under SAP scheme of UGC with the interdisciplinary theme of research work of Nano Science and Technology. Number of research scholarships are available to the Ph. D. students through research project grants and/or University fund. Where focus is placed on creating new opportunities for education and research that are aligned with global challenges to meet the current and growing industrial needs.

VISION

To develop knowledge-based society by imparting creative and innovative quality technical education through excellence in teaching, research, and extension.

MISSION

To provide quality education in conducive environment in order to engender world-class technocrats and scientists for the betterment of society.

Excellence

We will pursue excellence in our educational and research programs, supporting our faculty, staff, and students in their individual and collective efforts to achieve their personal and professional goals.

Innovation

We seek and support innovation in teaching and learning, research, and service and governance.

Professionalism

Ethics and integrity are core values within the Chemical Engineering and Tech. Department.

Collaboration

Interdisciplinary collaboration is central to the success of Chemical Engineering and Technology. Our research programs are well aligned with the major Research Institutes across the globe. Our faculty collaborates with colleagues across the national and international level for multidisciplinary research.

STRATEGIC OBJECTIVES

Education

Develop undergraduate, post graduate and PHD programs that enable our students to identify and pursue their personal and professional goals while obtaining a strong foundation in the principles of chemical engineering and Technology.

Research

Pursue cutting edge research across the breadth of the chemical engineering discipline that addresses current and future societal/technological needs.

Service

Contribute to and provide leadership in professional organizations, leading technical publications, and government/industry drawing upon the unique expertise and experience of our faculty, staff, and students.

Development

Secure and improve the institute's financial foundation and enhance faculty resources while balancing short- and long-term goals.

Institutional Governance

Create and implement structures and procedures based on the principles of shared governance that support our faculty, staff, and students. Pursue strategies that support and enhance due process, responsiveness, flexibility, and efficiency in our administrative and financial systems.

STRATEGIC GOALS

In Education

Strategic goals in education include

- i. Prepare students for success in industrial, academic, and other careers.
- ii. Periodic upgradation of curricula of B.Tech. and M.Tech. courses to fulfill societal and industrial needs and requirements
- iii. Continually review the curriculum to maintain its relevance to current and future societal needs.
- iv. Enhance teaching effectiveness by upgrading qualification of faculty members, teaching-learning tools such as online teaching
- v. Expand opportunities for internships, Co-Ops, and undergraduate research.
- vi. Increase enrollment of students.
- vii. Promote graduate student applications for nationally competitive fellowships and travel grants.
- viii. While continuing our tradition of success in producing industry leaders, encourage PhD graduates to pursue an academic track.
- ix. Increase participation in the Professional MS and PHD program.
- x. Strengthening of departmental library and language lab
- xi. Organization of workshop, seminar, conference

These goals will be achieved by taking the following actions:

1. Implement new undergraduate curriculum that addresses critical needs of society, Computational Tools for Chemical Engineering and Technology.
2. Explore opportunities for leveraging new technologies, including online teaching, to enhance the educational experience.
3. Implementation of academic reforms in conducting exams, evaluation, and feedback.

4. Expand opportunities for experiential learning including research, co-operative and internships, hands-on special projects, and entrepreneurship programs.
5. Increase networking interactions between our students and alumni, including expanding our alumni mentoring program to include graduate students.

In Research

Strategic goals in education include

- i. Strengthen our position in areas where the Institute is preeminent, including chemical engineering, nanotechnology, reaction engineering, polymer technology, paint applications, oil technology, pharmaceutical Technology, molecular simulations and polymers.
- ii. Recruit exceptional faculty whose interests align with our strategic and emerging research areas
- iii. Focus efforts on securing large, interdisciplinary, multi-year research projects that have potential for significant impact.
- iv. Undertake industry sponsored research projects and the projects from governments research laboratories and collaborative research programs at consultancy levels.
- v. Encourage development of intellectual property.

These goals will be achieved by taking the following actions:

6. Working with the University to design a new building for Chemical Engineering and Technology that provides state-of-the-art research and teaching facilities, that encourages collaboration, and integrates the highest standards of safety.
7. Providing support for faculty to prepare and lead multi-investigator research programs including both teaching release and planning funds.
8. Enhancing our graduate and post graduate student recruiting activities, including the use of well-supported and noticeable graduate fellowships.
9. Developing and implementing new strategies for broadly heightening the research accomplishments of our faculty and students.

In Service

Strategic goals in service to the technical community and society include

- i) Strengthening and modernizing our undergraduate and Postgraduate curricula.
- ii) Enhancing the educational experience by strengthening professional development opportunities for our students.

The following actions support our service strategic goals:

13. Provide support and encouragement for faculty to pursue leadership roles in professional organizations and in editorial positions for major technical publications.
14. Strengthen existing programs and corporate partnerships.
15. Develop new partnerships with both academic and corporate institutions in strategic areas, including opportunities in the development of multi-investigator research initiatives.

In Governance

Strategic goals in institutional governance help to

- i) Improve the operation and administration of the Chemical Engineering and Technology Department.
- ii) Develop and implementation of strategies for more effective management of Department budget and endowments to support research and educational initiatives.
- iii) Explore ways to involve alumni more effectively in Chemical Engineering and Technology.
- iv) Execution of management, recruitment, and procurement reforms by use of advanced tools and software.

These goals will be achieved by taking the following actions:

16. Re-examine responsibilities of staff and faculty to increase effectiveness and insure equitable and appropriate workload distribution.
17. Review budgets of the institute to develop appropriate strategies for managing carry-forward funds and making strategic investments.
18. Strengthen efforts of our Alumni Programming Group to support professional development activities.

Development

Secure and improve the institute's financial foundation and enhance faculty resources while balancing short- and long-term goals.

Strategies:

- i. Apply for funding for faculty start-up expenses and fellowship for research scholars.
- ii. Seek for the number of alumni who donate to the institute and strengthening alumina association.

The collective efforts will be taken by the department to work as per the objectives and measures of strategic plan 2020-2025, so that the overall development of Institute in different areas will takes place which will benefits the students.

**'A' Grade
NAAC Re-accredited
(3rd Cycle)**