



Institute of Chemical Technology, Mumbai

Report on the

NEP 2020: Best Practices adopted for the Effective Implementation of the National Education Policy in Higher Education Institutions

UGC UTSAH PORTAL: <https://utsah.ugc.ac.in/Home/Index>

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- **Enlist the initiatives undertaken under the umbrella of NEP 2020.**

1. The Institute of Chemical Technology, Mumbai has established a dedicated NEP Implementation Committee to ensure a smooth implementation of NEP 2020 in all campuses of the Institute, Mumbai, Jalna and Bhubaneshwar.
2. The Implementation Committee has representatives from all the departments (called, Department Coordinators) and coordinators from off campuses (Jalna and Bhubaneshwar).
3. The committee works under the guidance of NEP Advisory Committee of the Institute.
4. Development of new curriculum as per the guidelines of NEP 2020 and State Higher Education Ministry, Government of Maharashtra has been completed.
5. The establishment of the Humanities and Management Department has been approved by the Board of Governors. This ensures a multidisciplinary education structure with more arts and humanities courses.
6. Vocational Skills and Value Education skill courses have been added to the course structure.
7. Thirteen Multidisciplinary Minor Degree (MDM) Programmes have been offered by various departments of ICT Mumbai Campus. Both Jalna Campus and Bhubaneshwar campus have also offered different MDM programmes.
(<https://www.ictmumbai.edu.in/DisplayPage.aspx?page=caaqk&ItemID=eaec>).
8. Orientation programmes for all MDM programmes and Open electives in all campuses have been conducted for the students by the department coordinators and the head of the department.
9. A basket of open elective courses is made available to the students in semesters III, IV and V.
10. Provision for mandatory courses in Emerging Areas of Technology, and 16 Weeks of Internship have been made in the curriculum.
11. All students enrolled in the year 2023 have obtained the registration in Academic Bank of Credit.
12. All the M.Sc. programmes in ICT have been restructured following the NEP guidelines and have already been implemented from July 2023 session: (a) M.Sc. in Engineering Mathematics; (b) M.Sc. in Chemistry; (c) M.Sc. in Physics (Materials Science); (d) M.Sc. in Textile Chemistry.

- **Best Practices of your institution in implementing NEP 2020**

Best Practices	Implementation in ICT
Multidisciplinary Curriculum Design	Following the guidelines of NEP and the State Higher Education Ministry, Government of Maharashtra, all the UG Engineering programmes have been restructured to ensure an interdisciplinary learning and contains components of



	Science, Engineering, Humanities and Management, Vocational Courses, Language and Communications Skills
Multiple Entry and Exit Points	Exit Options have been offered in line with NEP guidelines.
Academic Bank of Credits	All students enrolled in the year 2023 have obtained the registration in Academic Bank of Credit.
Research and Innovation	<ul style="list-style-type: none"> Flexibility is offered to students to opt for honours and research degrees with more electives in core and minor degree programs. Inculcation of Industrial Innovation and Entrepreneurship through S. M. Mokashi Incubation Centre for Nurturing Innovations and Catalysing Entrepreneurship (ICT-NICE).
Digital Learning Initiatives	<ul style="list-style-type: none"> Under NEP, all programmes have ensured to include various digital learning platforms in the learning process. ICTs dedicated NEP implementation and department coordinators streamline the students with appropriate MOOCs Dedicated training for faculty members on the technology-enabled teaching and learning in the classroom environment is conducted in ICT.
Teachers Training and Development	<ul style="list-style-type: none"> Faculty Development Programme on Pedagogy focusing on NEP 2020 is conducted in ICT. Faculty members also encouraged to attend training on Education and Pedagogy.
Faculty Mentorship Programme	<ul style="list-style-type: none"> ICT Mumbai has adopted a unique initiative to offer mentorship to young faculty members by the senior professors to ensure a fostering professional growth and ensuring inclusivity.
Vocational Education Integration	<ul style="list-style-type: none"> Following the NEP guidelines, the institute has introduced skill development programmes. The alumni of ICT Mumbai offer training programmes for the students to become industry ready.
Quality Assurance	<ul style="list-style-type: none"> The institute ensures regular audits and reviews and ensure external audits of academic process (including all UG, PG and PhD programmes)
Promotion of Indian Knowledge and Culture	<ul style="list-style-type: none"> Under NEP, course of Modern Indian languages has been offered. NEP Implementation Committee ensures the offering of diverse range of language to be part of it. Off campuses in Jalna and Bhubaneshwar ensure that local linguistic knowledge may also be incorporated.



Community Engagement	<ul style="list-style-type: none">• Students are exposed to various community engagement activities and also work in rural part of Maharashtra as well.• The curriculum is designed and is being implemented to ensure a holistic growth of students with respect to emotional, physical and ethical dimensions.
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- **What are the outcomes expected from these best practices from the perspective of students?**

Under the umbrella of the National Education Policy, Institute of Chemical Technology, Mumbai has refurbished the whole curriculum structure of Institute to ensure a holistic and multidisciplinary learning of the students. With a great legacy of this Institute in both teaching, research and scientific and industrial innovation, ICT Mumbai is determined to ensure the following for the students:

1. Personalized learning for students through the 100% implementation of ABC
2. Skill enhancement and better employability
3. Improved scope for research and industrial innovation by exposing the students to cutting-edge technological innovation
4. Multidisciplinary learning through Minor degree programmes with a wide range of options for the students.
5. Exposure to culturally diverse Indian knowledge system.

- **Expected outcomes for the faculty**

1. Become a facilitator for the students to expose them in a multidisciplinary learning environment
2. Understand and incorporate the NEP guidelines in the teaching learning process.
3. Adapt to technology enabled teaching learning methodologies.
4. Ensuring continuous professional development and an enhanced industrial interaction.
5. To gain exposure to ancient Indian Science and technological development and transfer this knowledge to students
6. Take part in student mentoring and help in attaining overall growth.
7. Ensure participation in institutional governance and help in successful implementation of NEP 2020.

- **Expected outcomes for your institution as a whole**

Under the active engagement of the NEP Implementation Committee, the Institute is determined to reach a great height in each of the following components.

1. **Excellence in Quality Education**

- a. Dynamic & Imaginative Syllabus
- b. Highly Science based courses & Pedagogy
- c. Credit based courses
- d. Rigorous Continuous Assessment



- e. Well-equipped laboratory
- f. Soft Skills development
- g. Inclusive Admissions and Financial Support

2. Professional and Industrial Linkages

- a. Mandatory Industry Internships
- b. Increased industrial linkages
- c. Projects and consultations
- d. Alumni relations
- e. Community lined projects

3. Research and Innovation

- a. Interdisciplinary research environment
- b. Research and development in frontier areas
- c. Incubation and start up policy
- d. Research collaboration with other institutions
- e. Become leader in Emerging technologies in AI and ML.

4. Societal Responsibilities

- a. Motivated and competent faculty members
- b. Academic freedom
- c. Access to latest tools and technologies
- d. Best library facilities
- e. Inclusion of all faculty, students and staffs

• Expected outcomes for the community & other stakeholders

1. Skilled graduates having solid foundation on of science and engineering principles
2. Practical knowledge of industrial process
3. Industry – relevant curriculum development
4. Students with a professional mindset and possess soft skills
5. Knowledge of Intellectual Property Rights
6. Access to faculty and students with knowledge of sustainable practices
7. Adaptive learner and engage in emerging technologies quickly

- Kindly provide the link of the website where these best practices have been showcased