



N.S.N. COLLEGE OF ENGINEERING AND TECHNOLOGY

N.S.N. Kalvi Nagar, NH-7, Manalmedu, Karur - 639 003, TN, India.
(Approved by AICTE New Delhi, Affiliated to Anna University, Chennai)

Strategic Planning and Implementation Report

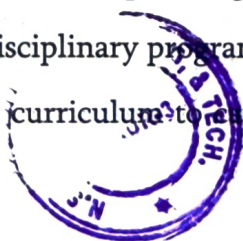
(for a 5-Year Cycle: 2023–2028)

The Institution has been consistent in maintaining excellence in the academic standards, research, reputation, recognition and professionalism since its inception and is known for its highest credentials in Teaching, Learning, Research, Innovation and extension activities. With an optimal blend of theory and practice, it offers 7 courses in Engineering & Technology and 3 Post Graduate courses, leading to the award of B.E, B.Tech and M.E Degrees of Anna University, Chennai.

The institution excels as one of the renowned institutes in Tamil Nadu owing to its State-of-the-art Infrastructure, well equipped laboratories and highly qualified and experienced faculty members. The campus is extended over an area of 20 acres of lush greenery campus and the Institute is imaginatively laid-out with picturesque landscape. The instructional buildings include departments, a central library, common amenities and student's hostels with the walking distance from Institute. The sprawling campus with state-of-the-art laboratories cultivates good character and ethics.

The institution has been strengthened by its passionate and research focused faculty members with a strong support from eminent industry experts, corporate, scientists, academicians and management consultants for training and recruiting fresh and young talents nurtured in the institution.

The Institution has 85% Placement record consecutively for the last 3 years with a highest salary of 15 Lakhs/annum. The Higher studies has also one of the successful platform that has proved great success for the Institution. Focus on Inter-Disciplinary and Multi-Disciplinary programs along with industry oriented online courses, development of effective curriculum to cater to the industry needs in consonance with NEP, facilitating



industrial internships for enhancing industry-readiness and employability of students are the visionary strategic plans of the institution.

SNO	NAME OF THE UG PROGRAMME	AICTE Sanctioned Intake
1	B.E – Computer Science and Engineering	90
2	B.E – Electronics and Communication Engineering	90
3	B.E – Electrical and Electronics Engineering	30
4	B.E – Mechanical Engineering	30
5	B.E – Civil Engineering	30
6	B.Tech – Information Technology	60
7	B.Tech – Artificial Intelligence and Data Science	120
SNO	NAME OF THE PG PROGRAMME	AICTE Sanctioned Intake
1	M.E.-Industrial Safety	30
2	M.E.-Computer Science and Engineering	18
3	M.B.A – Master in Business Administration	60

Glimpse of the Strategic Plan

The institution aims to pioneer transformative advancements in education and research by focusing on innovation, collaboration and societal impact. By updating curricula to include emerging fields like AI, renewable energy and robotics, the institution will prepare students for dynamic global challenges. Robust research ecosystems, interdisciplinary programs and partnerships with industry leaders will foster a culture of innovation. Initiatives like innovation hubs and sustainable infrastructure will solidify the institution's leadership in engineering education. The plan, underpinned by a strong governance framework and strategic KPIs, positions the institution for global recognition and long-term societal contributions.

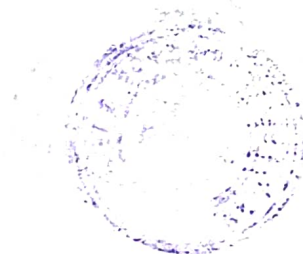


Institution Vision

To emerge as a premier institution of engineering education, recognized globally for excellence in teaching, innovation and research, nurturing ethically grounded, skilled and socially responsible technocrats capable of addressing complex global challenges.

Institution Mission

- To impart transformative, outcome-based technical education through innovative pedagogy, experiential learning and interdisciplinary academic practices.
- To inculcate ethical values, professional integrity, leadership qualities and social responsibility among students, shaping principled and accountable graduates.
- To cultivate globally competent professionals with critical thinking, creativity, entrepreneurial mindset and advanced technical expertise.
- To promote a dynamic ecosystem of research, innovation, industry collaboration and lifelong learning aligned with evolving technological and societal needs.
- To empower students to achieve excellence at global standards and contribute meaningfully towards sustainable development and societal progress.

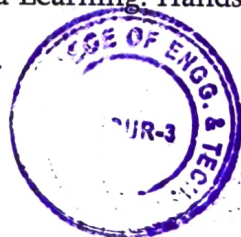


Substantiating the Path Ahead

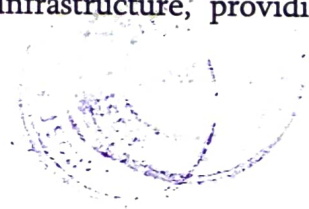
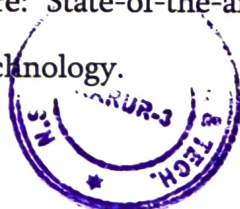
The path ahead for an engineering institution hinges on leveraging its strengths in education, research, and collaboration to address global challenges and drive innovation. By modernizing curricula to align with emerging technologies, fostering interdisciplinary research, and partnering with industries, the institution can remain at the forefront of technological advancements. Expanding international collaborations will enhance global exposure, while community engagement initiatives will solidify its role as a societal leader. Infrastructure investments in smart and sustainable technologies will create a forward-thinking campus, embodying the institution's commitment to environmental stewardship. These efforts, guided by a robust governance framework and measurable KPIs, will ensure the institution's continued relevance and leadership in shaping the engineers and solutions of tomorrow.

Highlights of NSNCET

1. Strong Industry Connections: Collaborations with top companies for internships and placements.
2. Experienced Faculty: Renowned professors with industry experience and research expertise.
3. State-of-the-Art Infrastructure: Modern labs, equipment and facilities for hands-on learning.
4. Strong Alumni Network: Successful alumni in top companies, providing mentorship and job opportunities.
5. Internship Opportunities: Guaranteed internships for all students, providing industry experience.
6. Placement Record: Excellent placement record, with top companies recruiting students.
7. Scholarships and Financial Aid: Generous scholarships and financial aid for deserving students.
8. Project-Based Learning: Hands-on learning through projects, developing problem-solving skills.



9. Guest Lectures: Regular guest lectures by industry experts, providing insights into latest trends.
10. Industry Visits: Regular industry visits, providing students with practical experience.
11. Hackathons and Competitions: Participation in national and international hackathons and competitions.
12. Student Organizations: Active student organizations, fostering leadership, teamwork and innovation.
13. Mentorship Programs: Mentorship programs, providing guidance and support to students.
14. Career Counseling: Career counseling services, helping students make informed career choices.
15. Soft Skills Training: Training in soft skills, such as communication, teamwork and time management.
16. Language Support: Language support services, helping students improve their language skills.
17. Cultural Events: Cultural events and festivals, celebrating diversity and promoting cultural exchange.
18. Sports and Fitness: State-of-the-art sports facilities, promoting fitness and well-being.
19. Health Services: On-campus health services, providing medical care and support.
20. Counseling Services: Counseling services, providing support for students' mental health and well-being.
21. Academic Support: Academic support services, providing help with coursework and academic skills.
22. Library Resources: Extensive library resources, including e-books, journals and research databases.
23. IT Infrastructure: State-of-the-art IT infrastructure, providing access to latest software and technology.



24. Campus Safety: Secure campus with 24/7 security, ensuring students' safety and well-being.
25. Community Engagement: Engagement with local community, promoting social responsibility and outreach.
26. Faculty Development: Faculty development programs, ensuring teachers stay updated with latest knowledge and trends.
27. Student Feedback: Regular student feedback mechanisms, ensuring students' voices are heard and valued.
28. Environmental Sustainability Initiatives: Initiatives promoting environmental sustainability, reducing waste and conserving resources.
29. Student Leadership Programs: Programs promoting student leadership, teamwork and communication skills.
30. Continuous Improvement Initiatives: Initiatives promoting continuous improvement, quality enhancement and excellence in education.

Strategic Plan of NSNCET

The institutional strategic plan has been clearly articulated and implemented to achieve our vision and mission. Our institution's strategic plan was developed through a collaborative and inclusive process involving various stakeholders, including faculty, staff, students, industry partners and alumni.

The strategic plan of the institution focuses on creating a transformative impact through excellence in education, research and societal engagement. It outlines key priorities, including curriculum modernization, interdisciplinary research and global collaborations, to address emerging technological and societal challenges. By fostering strong industry partnerships, promoting innovation and entrepreneurship and embracing smart and sustainable infrastructure, the institution aims to equip students and faculty with the tools to lead in a dynamic global landscape. Guided by measurable goals and robust governance, this plan ensures long term relevance, sustainability and leadership in engineering education and innovation.



Indian Scenario in Engineering Education

1. Current Landscape

- Statistics on the number of engineering institutions, students enrolled and graduates annually.
- Regional diversity in engineering education.
- The prominence of technical institutions like IITs, NITs and private universities.

2. Strengths

- High enrolment rates and wide accessibility.
- Strong technical foundations established in prestigious institutions.
- Government initiatives such as Skill India and Make in India bolstering technical education.

3. Challenges

- Skill gaps between education and industry requirements.
- Over-saturation in certain streams (e.g., IT and computer sciences).
- Quality disparities between institutions.
- Lack of adequate focus on research and innovation.

4. Emerging Trends

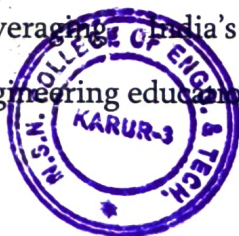
- Integration of AI, IoT and sustainability in curricula.
- Increased focus on internships, projects and hands-on learning.
- Growth in entrepreneurship and start-up culture among graduates.

5. Government Policies and Support

- Reforms under the National Education Policy (NEP) 2020.
- Initiatives for digital learning and technology integration.
- Focus on accreditation and global standards.

6. Future Outlook

- The shift toward interdisciplinary and industry-relevant education.
- Leveraging India's demographic dividend through skill-oriented engineering education.



Key Highlights of NEP 2020

1. School Education

- **5+3+3+4 Structure:** Replaces the 10+2 system with a flexible structure for foundational, preparatory, middle and secondary stages, covering ages 3-18.
- **Focus on Early Childhood Care and Education (ECCE):** Universal access to quality preschool education by 2030.
- **Holistic Development:** Emphasis on critical thinking, creativity and foundational literacy and numeracy.
- **Reduced Curriculum Content:** Focus on core concepts and hands-on learning.
- **Multilingual Education:** Teaching up to Grade 5 in the mother tongue/regional language wherever possible.

2. Higher Education

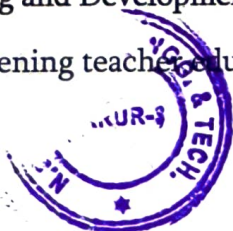
- **Flexible Curricula and Choice-Based Learning:** Multidisciplinary programs with multiple entry and exit points.
- **Undergraduate Programs:** Choice of 3- or 4-year courses with certification at different levels (certificate, diploma, degree).
- **Academic Bank of Credits:** Digital repository for credit storage and transfer.
- **Single Regulatory Body:** Establishment of the Higher Education Commission of India (HECI).
- **Phasing Out Affiliation System:** Autonomous degree-granting colleges to replace affiliated institutions.
- **Target GER:** Increase Gross Enrolment Ratio to 50% by 2035.

3. Vocational and Skill-Based Education

- Integration of vocational education from Grade 6.
- Mandatory internships and hands-on training.

4. Teacher Training and Development

- Strengthening teacher education through 4-year integrated B.Ed. programs.



- Performance-based career progression and continuous professional development.
5. **Technology in Education**
- Establishment of the National Educational Technology Forum (NETF).
 - Increased use of AI and digital tools in teaching and learning.
6. **Inclusive Education**
- Focus on disadvantaged groups (Diverse gender identities, socio-economic backgrounds and disabilities).
 - National Institute for Pali, Persian and Prakrit languages.
7. **Research and Innovation**
- Creation of the National Research Foundation (NRF) to promote high-quality research in universities.
8. **Governance and Policy Reforms**
- Light but tight regulation to ensure transparency and accountability.
 - Emphasis on autonomy for institutions and faculty.
9. **Promoting Indian Knowledge Systems**
- Inclusion of traditional and indigenous knowledge in curricula.
 - Strengthening Sanskrit and other Indian languages.
10. **Globalization and Internationalization**
- Collaboration with global institutions for exchange programs and research.
 - Allowing foreign universities to operate in India.



Institutional SWOC Analysis

Strengths:

- ICT enabled teaching learning process
- Well-equipped Digital Library
- Industry Collaborations
- Publications in renowned journals
- Beyond Syllabus Activities
- Academic Audit process for quality assurance
- Institutional and Departmental Committees for working towards excellence in education

Weaknesses:

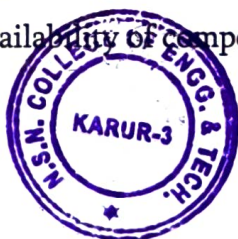
- Minimum number of faculty PhD. Holders
- International engagement of student–faculty exchange programme

Opportunities:

- Prototyping Laboratory
- International collaborations
- Academic Autonomy
- Contribution towards sustainable development of the society
- Institutional Social Responsibility
- Expansion of research programs

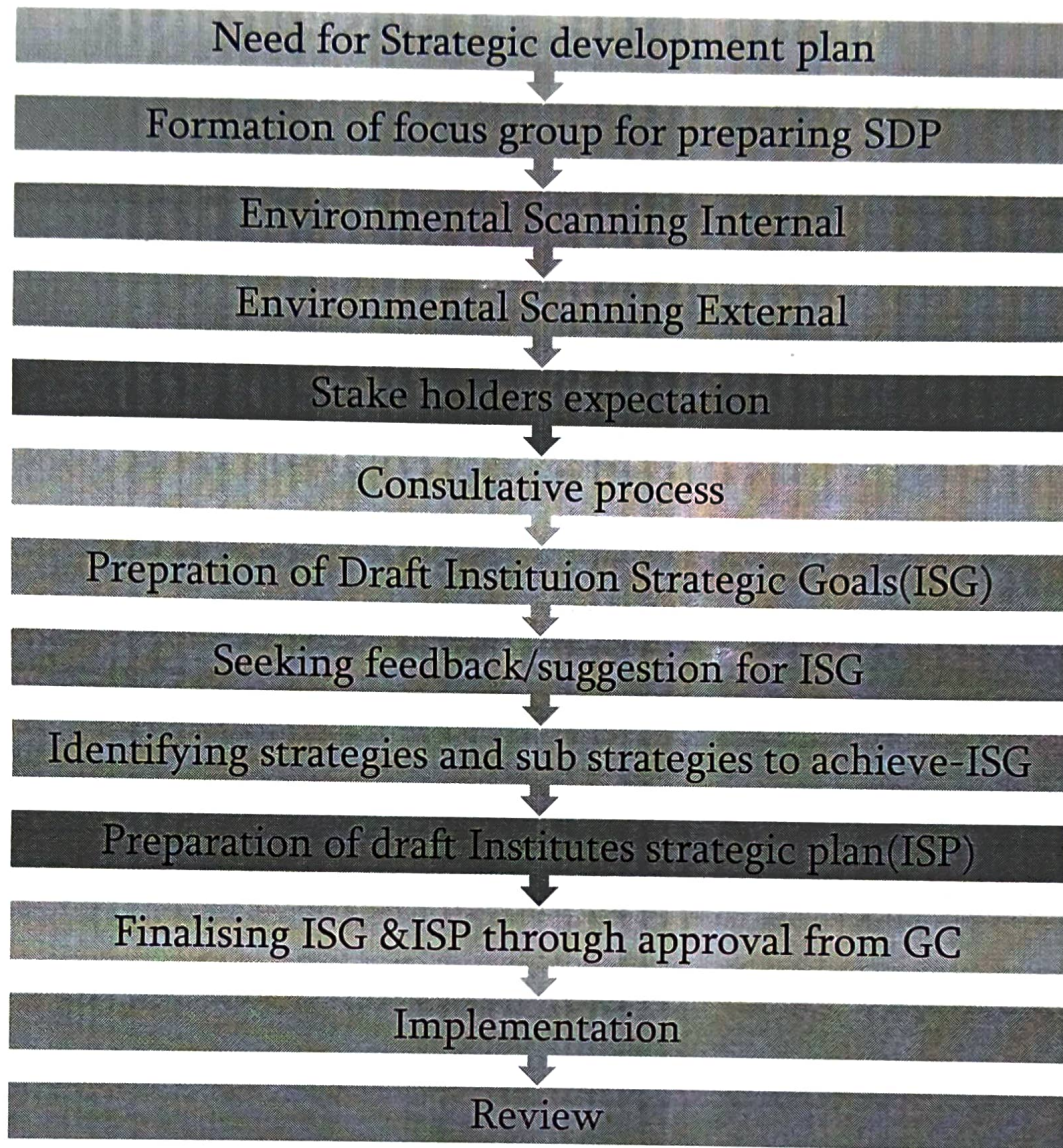
Challenges:

- Change in admission scenario in Engineering
- Implementation of NEP2020
- Unpredictable placement scenario
- Availability of competent Ph.D. faculty



Development and Implementation of the Strategic Plan

The development and implementation of our strategic plan, highlighting our commitment to quality and excellence is briefed below:



1. SWOC analysis: Identifying strengths, weaknesses, opportunities and threats to inform the strategic plan.
2. Stakeholder engagement: Gathering feedback and input from stakeholders to ensure the plan reflects their needs and expectations.
3. Goal setting: Establishing clear and measurable goals that align with the institution's vision and mission.
4. Draft Plan Preparation: IQAC consolidated data and drafted a 5-year strategy.



5. Validation & Approval: Reviewed by Academic Council and approved by the Governing Body.
6. Implementation & Review: Annual KPI-based evaluation and mid-term corrections.

Strategic Plan Objectives

Our strategic plan has the following objectives:

- | | |
|--|---|
| Curricular Aspects | • To ensure effective design and delivery of academic programs. |
| Teaching and Learning | • To promote active and meaningful knowledge exchange. |
| Learning Resources | • To support effective teaching and study. |
| Research and Development | • To drive innovation and growth. |
| Innovation and Ecosystem | • To foster creativity and collaboration |
| Extension Activity | • To connect education with community service |
| Identify Partnerships | • To strengthen collaboration and growth. |
| Infrastructure Development | • To enhance learning environment. |
| Ranking and Recognition | • To reflect institutional excellence. |
| Holistic and Multi-Disiplinary Education | • To integrate multiple disciplines for overall growth. |



Implementation of Strategic Plan

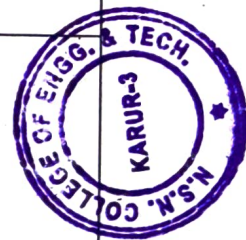
The implementation of our strategic plan involves:

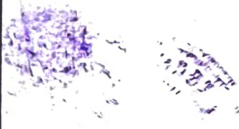
1. Action plans: Developing detailed action plans that outline specific steps and timelines for achieving strategic objectives.
2. Resource allocation: Allocating resources, including budget, personnel and infrastructure to support the implementation of the strategic plan.
3. Monitoring and evaluation: Regularly monitoring and evaluating progress towards achieving strategic objectives.



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S.No	Objective	Goal	Baseline	Action Plan	Success indicator / Planned Outcome
1	Improving Academic Quality	To improve the academic quality of the institution by increasing the number of accredited programs and improving student outcomes	<p>Increase the number of accredited programs from 0 to 50% within the next 3 years</p> <p>Improve student pass percentage in university exams</p> <p>Increase the number of research papers published by faculty members.</p> <p>Increase the number of research projects funded by external agencies from 1L to 10L per year.</p>	<p>Accreditation status of programs</p> <p>Student pass percentage in university exams</p> <p>Number of research papers published by faculty members</p> <p>Number of research projects funded by external agencies</p>	<p>50% of the programs to be accredited before 2027</p> <p>To achieve more than 90% by 2026-27</p> <p>To publish at least 150 research papers annually in Scopus/WoS indexed journals.</p> <p>To achieve Rs.10 lakhs per year of research funds before 2027-28.</p>
2	Enhancing Research and Innovation	To institution as a hub for research and innovation in establish the engineering and technology.	<p>Establish new research centers within the next 3 years.</p> <p>Increase the number of patents published/granted by faculty members and students from 2 to 10 per year.</p>	<p>Number of research centers and laboratories established</p> <p>Number of patents filed by faculty members and students</p>	<p>To achieve research recognition status for all the departments. To foster inter-disciplinary research collaborations</p> <p>To file atleast 25 patents annually. To achieve a patent grant rate of 30% or higher annually.</p>



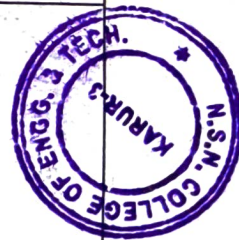
			<p>Increase the number of citations and h-index year-on-year for the next 3 years.</p>	<p>Number of citation per year and h-index per year</p>	<p>To increase annual citation count by 25%. To achieve a total of 3000 citations by 2027-28. To increase institutional h-index by 25% annually.</p>
<p>3</p>	<p>Strengthening Industry Partnerships</p>	<p>To strengthen industry partnerships and collaborations to improve the employability of graduates and promote research and innovation.</p>	<p>Increase the number of industry partnerships from 5 to 15 within the next 3 years.</p> <p>Establish 5 new industry-funded research projects within the next 3 years.</p> <p>Increase the number of students placed in industry jobs from 80% to 90% within the next 2 years.</p>	<p>Number of industry partnerships</p> <p>Number of industry-funded research projects</p> <p>Percentage of students placed in industry jobs</p>	<p>To establish atleast 25+ industry partner ships within 2027-28</p> <p>To create opportunities for collaborative research, internships and project based learning with industries</p> <p>To launch atleast 5 joint research initiatives with industry partners within 2027-28</p> <p>To improve student employability through industry exposure and networking and to increase the placement percentage to 90% within 2026-27.</p>



4	Improving Infrastructure and Facilities	To improve the infrastructure and facilities of the institution to provide a world-class learning environment for students	<p>Increase the number of ICT facilities in all classrooms within the next 3 years.</p> <p>Enhance the Library Infrastructure with latest and well-equipped e-resources within the next 3 years.</p> <p>Improve the internet bandwidth and connectivity to 1 Gbps within the next 3 years.</p> <p>Increase the number of student clubs and organizations from 2 to 10 within the next 3 years.</p>	<p>Number of classrooms and laboratories</p> <p>Number of books and journals in the library</p> <p>Internet bandwidth and connectivity</p>	<p>To upgrade classrooms and labs with modern technology and equipments within 2027-28</p> <p>To increase library resources (books, journals, databases) by 25% annually</p> <p>To ensure campus-wide Wi-Fi coverage with reliable and fast internet connectivity.</p>
5	Enhancing Student Life and Experience	To enhance the student life and experience by providing a range of extracurricular activities, sports, and cultural events	<p>Encouragement of students to participate and win awards in sports, cultural for the next 3 years.</p> <p>Increase the number of cultural events and festivals from 3 to 10 per year.</p>	<p>Number of student clubs and organizations</p> <p>Number of students participated & won awards in sports, cultural & others.</p> <p>Number of cultural events and festivals</p>	<p>To establish and support a minimum of 15 student clubs and organizations.</p> <p>To increase student participation in extra-curricular activities by 40% annually.</p> <p>To host atleast a minimum of 10 campus events (ex: culturals, sports, academic) etc., per year</p>
6	Faculty	To enhance educators'	Increase in the number of	Number of Faculty	To ensure that atleast 85% of the



	<p>Development and Training</p> <p>knowledge, skills, and teaching effectiveness, fostering continuous professional growth to improve student learning outcomes and support institutional excellence</p>	<p>faculty members attending national and international conferences from 20% to 50% in next 3 years.</p> <p>Increase in the number of faculty members attending FDPs from 20% to 50% in next 3 years.</p> <p>Increase in the number of faculty members with Ph.D qualifications from 5% to 30%.</p>	<p>members attended national and international conferences</p> <p>Number of faculty members attended FDPs</p> <p>Number of faculty members with Ph.D qualification.</p>	<p>faculty members participate in conferences.</p> <p>To ensure that atleast 85% of the faculty members participate in professional development programs annually.</p> <p>To ensure that atleast 30% of the faculty members are with PhD qualification by 2027-28.</p>
7	<p>Quality Assurance and Accreditation</p> <p>To ensure that the programs meet established standards of excellence, fostering continuous improvement in teaching, learning, and outcomes to enhance institutional credibility and student success</p>	<p>Status of accreditations</p> <p>Participation in quality audits conducted by external agencies</p>	<p>Number of programs accredited</p> <p>No of audits conducted and awarded</p>	<p>To achieve and maintain accreditation from accrediting agencies</p> <p>To complete the accreditation cycles within the specified timeframe.</p> <p>To conduct internal audits covering atleast 80% of academic and administrative departments annually.</p> <p>To implement audit recommendations within 6 months of report submission.</p>



			<p>Establishment of a quality assurance cell, focusing on internal quality audits and assessments.</p>	<p>Establishment of IQAC as per the guidelines with frequent meetings conducted</p>	<p>To conduct regular quality audits to ensure compliance with standards.</p>
8	<p>Student Feedback and Grievance Redressal</p>	<p>To provide a structured platform for students to voice concerns, offer constructive feedback, and resolve issues effectively, ensuring a supportive and responsive academic environment</p>	<p>Establishment of a student feedback system, focusing on teaching-learning and infrastructure.</p>	<p>Availability of student feedback system in website and manual</p>	<p>To collect feedback from atleast 70% of the students on course curriculum, teaching and facilities. Analyze feedback and implement changes based on suggestions in atleast 60% of cases.</p>
			<p>Increase in the number of student grievances addressed from 90% to 95%.</p>	<p>Number of student grievances addressed.</p>	<p>Resolve atleast 95% of student grievances satisfactorily.</p>
			<p>Establishment of a student grievance redressal committee, focusing on timely and effective resolution of grievances.</p>	<p>Availability of student grievance, Spars, as per UGC guidelines</p>	<p>To respond and to resolve student grievances within 3-5 working days</p>
9	<p>Alumni Engagement and</p>	<p>To foster long-term, mutually beneficial</p>	<p>Increase in the number of alumni events and</p>	<p>No of alumni events conducted in a year</p>	<p>To develop a dedicated online platform for alumni to connect,</p>



	Networking	relationships between alumni and their alma mater, facilitating professional growth, knowledge sharing, and support for current students and the institution	reunions from 1 to 2 per year.		share and collaborate. To provide job and internship opportunities through alumni network.
		Establishment of an alumni association, focusing on networking and career development.	Involve alumni in department events as speakers/guests/jury members for events	Alumni association status and events on networking alumni	Increase alumni membership by 20% annually.
		Establishment of a community engagement cell, focusing on social responsibility and outreach.	Increase in the number of community outreach programs from 5 to 7 per year.	No of events where alumni has been invited to be a part of the program.	To host quarterly industry specific events, workshops and seminars
		To build meaningful relationships, foster collaboration, and address the needs of diverse communities through active involvement, education, and shared resources for mutual growth and impact	Increase in the number of partnerships with local industries and organizations from 0 to 6.	Number of community engagement cell establishment	To reach a minimum of 1000 community members through outreach programs annually
10	Community Engagement and Outreach			Number of community outreach Programs conducted	To conduct awareness and education programs on key social issues, benefitting atleast 500 community members.
				Number of partnerships with local industries and organizations	To collaborate with local authorities and stake holders to address community needs




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