INSTITUTIONAL DEVELOPMENT PLAN

Strategic Vision: Academic Excellence, Global Engagement and Research Impact

1. Vision

To emerge as one of the premier higher education institutions in India by achieving excellence in teaching and learning, research and innovation, industry collaboration, student employability, and global engagement.

2. Mission

To provide quality technical education, promote interdisciplinary research, strengthen industry–academia partnerships, nurture innovation and entrepreneurship, and develop competent graduates capable of contributing to technological advancement and societal development.

3. Strategic Objectives

The Institutional Development Plan aims to achieve the following objectives:

1. Improve student admissions, particularly in core engineering branches.
2. Strengthen consultancy activities and industry collaborations across all departments.
3. Establish Innovation Hubs, Centres of Excellence, and advanced research laboratories.
4. Enhance alumni engagement and strengthen alumni support systems.
5. Improve placement performance and graduate employability.
6. Introduce flexible, multidisciplinary, and multiple-entry programmes in alignment with the National Education Policy (NEP) 2020, subject to applicable regulatory requirements.

7. Improve the institution's ranking and performance under the Kerala Institutional Ranking Framework (KIRF) and the National Institutional Ranking Framework (NIRF).
8. Increase research publications in reputed indexed journals, with a focus on quality and impact.
9. Secure research grants and funded projects for all departments.
10. Promote internationalisation by attracting foreign students and establishing global academic partnerships.
11. Encourage faculty members and research scholars to publish high-quality research papers in IEEE Transactions and other leading journals relevant to their disciplines.
12. Establish a global alumni network through international alumni chapters.
13. Develop the institution into a leading university-level centre for higher education, research, and innovation, subject to the applicable statutory framework.

4. Strategic Development Areas and Action Plan

4.1. Improving Admissions in Core Engineering Branches

Objective: Increase student enrolment and improve the attractiveness of core engineering programmes.

Action Plan:

- Develop targeted admission strategies for core engineering branches such as Mechanical, Electrical and Electronics, and other relevant disciplines.
- Conduct outreach programmes in schools and higher secondary institutions to create awareness of engineering education and career opportunities.
- Organise technical exhibitions, workshops, career guidance sessions, and hands-on engineering activities for school students.
- Highlight placement opportunities, industry collaborations, research facilities, and successful alumni achievements.

- Strengthen digital marketing and social media outreach to promote the institution's academic strengths.
- Introduce industry-oriented courses, skill development programmes, and certification courses to enhance the value of core engineering degrees.

Key Performance Indicators (KPIs):

- Year-on-year increase in admissions to core engineering branches.
- Improvement in seat occupancy and admission conversion rates.
- Number of school outreach programmes conducted.
- Increase in applications from eligible students.

4.2. Strengthening Consultancy Engagements Across All Departments

Objective: Develop consultancy as a sustainable source of institutional revenue and industry engagement.

Action Plan:

- Identify consultancy opportunities relevant to the expertise available in each department.
- Establish a centralised consultancy coordination mechanism.
- Encourage faculty members to undertake industry-sponsored projects, technical audits, testing, product development, and professional advisory services.
- Develop a database of faculty expertise, laboratory facilities, and consultancy services.
- Establish partnerships with industries, government agencies, startups, and public-sector organisations.
- Develop transparent institutional policies for consultancy revenue, project execution, and faculty incentives.

KPIs:

- Number of consultancy projects undertaken annually.
- Total consultancy revenue generated.
- Number of industry and government clients served.

- Percentage of departments undertaking consultancy activities.

4.3. Enhancing Industry Connect and Conducting Departmental Conclaves

Objective: Strengthen industry–academia collaboration and ensure that academic programmes remain aligned with emerging industrial requirements.

Action Plan:

- Organise annual industry conclaves in all departments.
- Establish and strengthen departmental Industry Advisory Boards.
- Invite industry experts to participate in curriculum review, technical workshops, guest lectures, and professional development programmes.
- Promote industry-sponsored projects, internships, industrial visits, and collaborative research.
- Establish Memoranda of Understanding (MoUs) with relevant industries and research organisations.
- Encourage industry participation in student projects, faculty development programmes, and curriculum enrichment activities.

KPIs:

- Number of industry conclaves conducted annually.
- Number of active industry collaborations and MoUs.
- Number of industry-sponsored projects and internships.
- Number of industry experts involved in academic activities.

4.4. Establishing Innovation Hubs and Centres of Excellence

Objective: Create an innovation-driven ecosystem that supports research, product development, entrepreneurship, and interdisciplinary collaboration.

Action Plan:

- Establish Innovation Hubs to encourage students and faculty members to develop innovative ideas and practical solutions.

- Identify thrust areas for Centres of Excellence based on departmental strengths and emerging technologies.
- Develop specialised facilities in areas such as artificial intelligence, robotics, the Internet of Things, sustainable technologies, advanced manufacturing, and other relevant disciplines.
- Encourage interdisciplinary projects involving multiple departments.
- Provide mentoring, prototyping facilities, incubation support, and opportunities for technology commercialisation.
- Collaborate with industries, research institutions, government agencies, and funding organisations to support these initiatives.

KPIs:

- Number of Innovation Hubs and Centres of Excellence established.
- Number of prototypes, patents, and innovative products developed.
- Number of student and faculty innovation projects supported.
- Number of startups, technology transfers, and industry-sponsored innovation projects.

4.5. Strengthening Alumni Interaction and Support

Objective: Build a strong alumni network that contributes to academic development, student mentoring, placements, research, and institutional growth.

Action Plan:

- Maintain an updated and centralised alumni database.
- Organise annual alumni meets and regular departmental alumni interactions.
- Establish alumni mentoring programmes for students.
- Encourage alumni to support internships, placements, entrepreneurship, and higher education guidance.
- Invite distinguished alumni to deliver expert lectures and participate in institutional development initiatives.
- Establish mechanisms for alumni contributions towards scholarships, infrastructure, research, and student development.

KPIs:

- Percentage of alumni records updated annually.
- Number of active alumni participating in institutional activities.
- Number of students mentored by alumni.
- Alumni contributions towards placements, research, scholarships, and institutional development.
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4.6. Strengthening Placement Records

Objective: Improve graduate employability and establish the institution as a preferred recruitment destination for leading organisations through Nehru Corporate Placements & Industry Relations (NCPIR).

Action Plan:

- Strengthen the Training and Placement Cell and departmental placement coordination.
- Conduct regular aptitude training, technical assessments, coding practice, communication training, and mock interviews.
- Develop industry-specific training programmes for students in different engineering disciplines.
- Establish stronger recruitment relationships with companies, including core engineering organisations and technology companies.
- Promote internships, industry projects, professional certifications, and pre-placement training.
- Maintain an effective student placement database and analyse recruitment trends to identify areas for improvement.
- Provide career guidance for higher studies, competitive examinations, entrepreneurship, and other career pathways.

KPIs:

- Percentage of eligible students placed.
- Number of companies participating in recruitment.
- Number of students securing core engineering placements.
- Median salary and highest salary offered, reported using clearly defined methodologies.
- Number of internships and pre-placement offers secured.
- Percentage of students completing employability training.

4.7. Introducing Multilevel Entry Programmes in Alignment with NEP 2020

Objective: Introduce flexible and learner-centred educational pathways that support multiple entry and exit opportunities, where permitted by applicable regulations.

Action Plan:

- Study the applicable regulatory and academic frameworks for implementing multiple-entry and exit options.
- Develop proposals for certificate, diploma, undergraduate, and other eligible academic pathways.
- Explore credit-based progression and recognition of prior learning, wherever permitted.
- Develop industry-oriented short-term programmes and skill-based certification courses.
- Establish academic collaborations with recognised institutions and industry partners.
- Ensure that all proposed programmes comply with the requirements of the relevant statutory and regulatory authorities.

KPIs:

- Number of approved flexible-entry or exit pathways introduced.
- Number of skill-based and certification programmes offered.
- Number of students enrolled in flexible learning pathways.
- Number of academic and industry partnerships supporting these programmes.

4.8. Improving KIRF and NIRF Rankings

Objective: Improve institutional performance across recognised ranking frameworks and establish a strong national reputation.

Action Plan:

- Establish a dedicated Ranking and Institutional Performance Committee.
- Analyse the applicable KIRF and NIRF parameters and identify performance gaps.

- Improve student enrolment, faculty qualifications, research output, placements, infrastructure, and institutional outreach.
- Strengthen data collection, documentation, validation, and timely submission of ranking applications.
- Monitor departmental performance using measurable indicators.
- Prepare annual improvement plans based on ranking results and institutional benchmarking.

KPIs:

- Improvement in KIRF ranking and scores.
- Submission of complete and accurate NIRF data.
- Progress towards entry into the top five engineering colleges in Kerala, based on a clearly defined ranking framework.
- Improvement in research, placement, graduation, and other relevant ranking indicators.

Strategic target: To emerge among the top five engineering colleges in Kerala and achieve recognition in the relevant NIRF engineering ranking category.

4.9. Increasing Research Publications in Indexed Journals

Objective: Improve research quality, visibility, impact, and academic reputation.

Action Plan:

- Identify research thrust areas in each department.
- Encourage faculty members to undertake collaborative and interdisciplinary research.
- Organise workshops on research methodology, academic writing, publication ethics, and intellectual property rights.
- Provide access to research databases, scholarly resources, and publication support.
- Establish faculty research groups and encourage collaboration with reputed universities and research organisations.
- Recognise high-quality publications based on transparent institutional criteria.

- Monitor publication quality and discourage predatory publishing practices.

KPIs:

- Number of publications in recognised indexed journals.
- Number of publications per faculty member.
- Number of citations and improvements in research impact.
- Number of interdisciplinary and collaborative publications.
- Number of faculty members actively engaged in research.

4.10. Becoming One of the Premier Engineering Institutions in India

Objective: Build institutional excellence through quality education, strong research, industry engagement, and student development.

Action Plan:

- Strengthen outcome-based education and continuous curriculum improvement.
- Promote innovative teaching methods, experiential learning, and project-based education.
- Improve laboratory facilities, digital infrastructure, and research resources.
- Strengthen faculty development and professional advancement.
- Establish strategic partnerships with leading academic institutions and industries.
- Implement effective quality assurance and continuous improvement mechanisms.
- Strengthen accreditation, ranking, and institutional assessment processes.

KPIs:

- Improvement in accreditation and ranking performance.
- Student satisfaction and academic progression.
- Graduate employability and higher education progression.
- Research output and industry engagement.
- Improvement in institutional quality indicators.

4.11. Securing Research Funding for All Departments

Objective: Develop a sustainable research ecosystem supported by competitive external funding.

Action Plan:

- Establish a Research and Development Cell to coordinate funding opportunities.
- Identify suitable funding schemes offered by government agencies, research councils, industry, and other organisations.
- Encourage each department to prepare and submit research proposals annually.
- Organise proposal-writing workshops and mentoring sessions.
- Promote joint proposals involving multiple departments and external research partners.
- Provide administrative support for budgeting, project management, utilisation certificates, and reporting.
- Encourage consultancy and industry-sponsored research as complementary funding sources.

KPIs:

- Number of research proposals submitted annually.
- Number and value of funded research projects.
- Number of departments receiving external research funding.
- Number of faculty members serving as principal investigators or co-investigators.

Strategic target: Ensure that every department actively participates in funded research activities and progressively establish at least one externally funded research project in each department within the plan period.

4.12. Enrolling Foreign Nationals as Students

Objective: Strengthen internationalisation and attract students from other countries.

Action Plan:

- Develop an international admissions strategy targeting suitable regions and countries.

- Promote academic programmes through international education networks and institutional partnerships.
- Establish collaborations with foreign universities and educational organisations.
- Develop dedicated support for international admissions, documentation, accommodation, orientation, and student welfare.
- Promote international exchange programmes, collaborative projects, and short-term academic programmes.
- Ensure compliance with applicable government regulations and institutional admission requirements.

KPIs:

- Number of international academic collaborations established.
- Number of applications received from foreign nationals.
- Number of foreign students enrolled.
- Number of international exchange and collaborative academic activities.

4.13. Promoting Publications in IEEE Transactions and Other Leading Journals

Objective: Improve the quality and international recognition of departmental research.

Action Plan:

- Identify suitable IEEE Transactions journals and equivalent leading publications relevant to each department's research areas.
- Establish research mentoring groups to support high-quality research and manuscript preparation.
- Encourage faculty members and research scholars to undertake original, technically rigorous research.
- Promote collaborative research with reputed institutions, industries, and international researchers.
- Conduct specialised workshops on technical writing, research methodology, and publication standards.
- Provide access to relevant databases, laboratory facilities, and research infrastructure.

- Set realistic publication targets based on departmental research strengths and opportunities.

KPIs:

- Number of manuscripts submitted to relevant leading journals.
- Number of papers accepted and published in IEEE Transactions and equivalent high-quality journals.
- Number of collaborative publications with external research partners.
- Number of departments producing publications in leading journals.

Strategic target: Encourage every department to develop a research pipeline capable of producing high-quality publications in leading journals, including IEEE Transactions wherever relevant to the discipline.

4.14. Establishing a Global Alumni Network

Objective: Develop a worldwide alumni network that supports international engagement, academic collaboration, placements, and institutional development.

Action Plan:

- Create an international alumni database organised by country and region.
- Establish alumni chapters in countries and regions with a significant alumni presence.
- Appoint alumni coordinators to facilitate communication and activities.
- Organise international alumni meetings, webinars, and networking events.
- Encourage alumni to support student internships, international career opportunities, collaborative research, and academic partnerships.
- Establish an online platform for alumni networking and engagement.

KPIs:

- Number of active international alumni chapters.
- Number of countries represented in the alumni network.
- Number of international alumni events conducted.

- Number of academic, placement, and research opportunities facilitated through alumni.

4.15. Developing the Institution into a Premier University in India

Objective: Progress towards national recognition for academic excellence, research, innovation, and institutional leadership.

Action Plan:

- Develop a long-term institutional growth strategy based on academic quality, research capability, and societal impact.
- Expand research activities and interdisciplinary academic programmes.
- Strengthen institutional governance, financial sustainability, infrastructure, and faculty development.
- Explore strategic academic collaborations with leading Indian and international institutions.
- Assess the statutory and regulatory requirements for university status, where applicable.
- Develop the necessary academic, administrative, and research capabilities in accordance with the relevant legal framework.

KPIs:

- Improvement in institutional ranking and reputation.
- Growth in research output and funded projects.
- Expansion of academic programmes and collaborations.
- Progress towards applicable regulatory and statutory requirements.

4.16. Establishing Centres of Excellence and Research Laboratories in All Departments

Objective: Develop department-specific research infrastructure that supports advanced learning, innovation, funded research, and industry collaboration.

Action Plan:

- Conduct an infrastructure and research-capability assessment in every department.

- Identify priority research areas based on faculty expertise, industry demand, and emerging technologies.
- Establish specialised research laboratories and Centres of Excellence in phases.
- Prepare laboratory development plans covering equipment, software, staffing, maintenance, and operating costs.
- Seek financial support from government agencies, industries, research organisations, and institutional funds.
- Encourage faculty and students to use these facilities for funded projects, consultancy, publications, and prototype development.
- Review the utilisation and impact of each facility annually.

KPIs:

- Number of functional research laboratories and Centres of Excellence.
- Percentage of departments with dedicated research facilities.
- Number of research projects and publications supported by these facilities.
- Revenue generated through consultancy and sponsored research.
- Number of industry collaborations supported by laboratory facilities.

5. Institutional Implementation and Monitoring Framework

To ensure effective implementation, the institution shall establish a structured monitoring and review mechanism through IQAC.

Sl. No.	Strategic Area	Responsible Unit	Monitoring Frequency
1	Admissions and outreach	Admission Cell and Departments	Quarterly
2	Consultancy and industry engagement	Consultancy Cell and Departments	Quarterly
3	Industry conclaves and MoUs	Industry Relations Cell and Departments	Half-yearly
4	Innovation Hubs and Centres of Excellence	Research and Development Cell	Half-yearly
5	Alumni engagement	Alumni Relations Cell	Half-yearly
6	Placements and employability	Training and Placement Cell	Quarterly
7	Flexible-entry programmes	Academic Council and Academic Office	Annually
8	KIRF and NIRF	Ranking and Institutional	Annually

	performance	Performance Committee	
9	Indexed journal publications	Research and Development Cell	Quarterly
10	Institutional excellence	Principal and Institutional Leadership	Annually
11	Research funding	Research and Development Cell and Departments	Quarterly
12	International admissions	International Relations and Admissions Teams	Annually
13	IEEE Transactions publications	Research and Development Cell and Departments	Half-yearly
14	Global alumni chapters	Alumni Relations Cell	Annually
15	Institutional development and university aspirations	Management and Institutional Leadership	Annually
16	Research laboratories and Centres of Excellence	Departments and Research and Development Cell	Half-yearly

6. Proposed Implementation Timeline

The plan shall be implemented in phases over a five-year period, with annual targets and measurable milestones.

Phase	Timeline	Major Activities
Phase I: Planning and Baseline Assessment	Year 1	Assess current institutional performance, establish committees, identify departmental priorities, set targets, and prepare resource plans.
Phase II: Capacity Building	Year 2	Strengthen industry partnerships, initiate consultancy projects, improve placement training, establish initial Innovation Hubs, and increase research proposal submissions.
Phase III: Expansion and Integration	Year 3	Expand research facilities, strengthen alumni chapters, increase funded projects, introduce approved flexible learning pathways, and intensify international collaborations.
Phase IV: Performance Acceleration	Year 4	Scale up research output, consultancy revenue, placements, international admissions, and participation in institutional rankings.
Phase V: Consolidation and Review	Year 5	Evaluate outcomes, assess achievement of strategic targets, benchmark performance against leading institutions, and prepare the next institutional development plan.

7. Resource Mobilisation and Financial Planning

The institution shall develop a financial plan to support the objectives outlined in this document.

The principal sources of support may include:

- Institutional budget allocations.
- Government-funded research and development schemes.
- Industry-sponsored projects and consultancy revenue.
- Corporate Social Responsibility (CSR) support, wherever applicable.
- Alumni contributions and endowments.
- Collaborative research and academic partnerships.
- Grants from eligible national and international funding agencies.

Each department shall prepare an annual resource requirement statement identifying infrastructure needs, equipment, research expenses, faculty development requirements, and project-related expenditure.

8. Governance and Accountability

The Management and Principal shall provide overall leadership for implementing the Institutional Development Plan.

A designated Institutional Development Committee shall coordinate implementation, monitor progress, review departmental performance, and recommend corrective measures.

Each Head of Department shall prepare a departmental development plan aligned with the institutional objectives. The plan shall specify measurable targets, responsible personnel, timelines, financial requirements, and expected outcomes.

Progress shall be reviewed periodically through departmental reports and institutional review meetings. Annual performance reports shall document achievements, challenges, resource utilisation, and proposed improvements.

9. Expected Outcomes

Successful implementation of the Institutional Development Plan is expected to result in:

1. Improved admissions and stronger demand for core engineering programmes.
2. Increased consultancy revenue and industry engagement.
3. Establishment of functional Innovation Hubs, Centres of Excellence, and research laboratories.
4. Improved student placement performance and employability.
5. Increased research funding and quality publications across all departments.
6. Stronger alumni engagement and an expanding international alumni network.
7. Improved institutional performance under KIRF and NIRF.
8. Increased international academic collaboration and foreign student enrolment.
9. Greater interdisciplinary research, innovation, entrepreneurship, and technology transfer.
10. Enhanced national and international recognition of the institution.
11. Stronger institutional capabilities to pursue long-term ambitions for university-level development, subject to applicable statutory requirements.

10. Conclusion

The Institutional Development Plan provides a strategic framework for transforming the institution into a centre of academic excellence, research innovation, industry collaboration, and global engagement. Its success will depend on the collective commitment of the Management, Principal, Heads of Departments, faculty members, administrative staff, students, alumni, and industry partners.

Through systematic planning, measurable targets, effective resource mobilisation, and continuous performance monitoring, the institution aims to strengthen its academic standing, improve research impact, enhance graduate employability, and establish itself among the leading engineering institutions in Kerala and India.