SRI MANAKULA VINAYAGAR
ENGINEERING COLLEGE
(AN AUTONOMOUS INSTITUTION)

INSTITUTIONAL DEVELOPMENT PLAN

2025-35

Table of Contents

S.No.	Table of Contents	Page Number
1.	Preface	1
2.	About the Institution	2
3.	SWOC Analysis	3
4.	Governance Enablers	4
5.	Financial Enablers	4
6.	Academic Enablers	5
7.	Research, Intellectual Property and Supportive Enablers	6
8.	Human Resource Management Enablers	7
9.	Enablers for Networking and Collaboration	8
10.	Physical Enablers	8
11.	Digital Enablers	9
12.	Action Plan	11
13.	Concluding Remarks	26
14.	SMVEC Roadmap 2025-2035	27

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Institutional Development Plan (IDP) 2025-2035

Preface

The Institutional Development Plan (IDP) serves as a strategic blueprint to guide the comprehensive growth and transformation of our institution in alignment with national priorities, global standards, and the aspirations of our stakeholders. We keep base as our Vision and Mission, and aligning with the National Education Policy (NEP) 2020, the Sustainable Development Goals (SDGs), this IDP reflects our commitment to building an inclusive, forward-looking, and resilient educational ecosystem.

The objective of establishing Sri Manakula Vinayagar Engineering College (SMVEC) is to provide access to a quality technical education for students from all sections of society, especially for the weaker sections of the society. Through this, our Institution envisions contributing to the building of a self-reliant, progressive nation. A strong foundation in engineering leads to a skilled workforce that fuels productivity, entrepreneurship, long-term economic development and encouraging responsible citizenship paving the way for a stronger and more equitable India.

The development of this plan has been a result of extensive and participatory consultations with stakeholders including faculty, students, alumni, industry partners, and the community besides the University Grants Commission (UGC) guidelines This plan helps us to identify existing capacity gaps—human, material, financial, and organizational—and outlines targeted Annual Activity and Capacity Building Plans to bridge these gaps and achieve our strategic objectives.

A key focus of this IDP is to ensure

- Holistic and Inclusive growth
- Digital empowerment
- Enhancing Employability
- Fostering entrepreneurship
- Integrating skill-based courses
- Internationalization
- Faculty and student exchange programs and
- Collaborative partnerships.

In order to ensure that IDP remains responsive, relevant, and dynamic, Institutional goals have been clearly quantified using measurable indicators, supported by time-bound targets and robust implementation strategies. We are committed to undertaking regular reviews and implementing corrective actions as needed, in a spirit of continuous improvement and innovation. This Institutional Development Plan is not just a roadmap for progress but a living document that evolves with our vision for excellence in education, equity, and global engagement.

About the Institution

Sri Manakula Vinayagar Educational Trust was formed with the avowed objective of imparting quality technical education, especially to the weaker sections of the society. The Trust established Sri Manakula Vinayagar Engineering College (SMVEC) in the year 1999. The institution has been approved by AICTE, New Delhi and affiliated to the Pondicherry University, Puducherry. SMVEC is the first institution in Puducherry to establish the 'Nila Community Radio Station' with the approval of Government of India. This Institution has undergone two cycles of NAAC accreditation with 'A' grade and all eligible programs are accredited by NBA-AICTE, New Delhi. We are conferred with Autonomous Status by University Grants Commission, New Delhi for ten years (2019-2029). SMVEC has been recognized in the band of 201-300 ranked by National Institute of Ranking Forum-24 (NIRF), Government of India for its academic excellence and institutional performance. The institution has attained an enviable reputation by possessing all the hall marks of premier Institution in pursuit of excellence.

Vision

To be globally recognized for excellence in quality education, innovation and research for the transformation of lives to serve the society.

Mission

M1: Quality Education: To provide comprehensive academic system that amalgamates the cutting edge technologies with best practices.

M2: Research and Innovation: To foster value-based research and innovation in collaboration with industries and institutions globally for creating intellectuals with new avenues.

M3: Employability and Entrepreneurship: To inculcate the employability and entrepreneurial skills through value and skill-based training.

M4: Ethical Values: To instil deep sense of human values by blending societal righteousness with academic professionalism for the growth of society.

SWOC Analysis

Strengths

- Autonomous Status since 2019, enabling flexible and industry-relevant curriculum design.
- High placement record with reputed MNCs; top offers up to ₹19 LPA.
- Experienced faculty with a blend of academic and industry backgrounds.
- Well-equipped laboratories and modern infrastructure.
- Active participation in research, innovation, and national-level competitions.
- Focus on Sustainable Development Goals (SDGs) and outcome-based education.
- Strong student support systems like mentoring, career guidance, and value-added programs.
- Recognized under NIRF rankings and accredited by reputed agencies like NBA/NAAC besides accredited by TCS
- Institution offers future skills required for the students and approved by the National Skill Development Corporation (NSDC)

Weaknesses

- Limited international collaborations for student/faculty exchange and research.
- Need for increased funded research projects and patents.
- Core branches face admission challenges.
- Dependence on a few key recruiters—scope to diversify placement opportunities.
- Located in a rural place

Opportunities

- Scope to introduce emerging technology programs like AI, Data Science, cloud computing, Cybersecurity, Blockchain, Quantum, etc.,
- Application of technologies in agriculture and rural development
- Collaborations with foreign universities and industries for global exposure.
- Expanding entrepreneurship and incubation support for student start-ups.
- Launch of online and hybrid learning modules to cater to broader learners.
- Potential to become a deemed university or university-level institute in future.

Challenges

- Rapidly evolving industry demand constant syllabus updates and faculty training.
- Competition from top-tier institutions and new private universities.
- Addressing students' skill gaps due to varied educational backgrounds.
- Balancing academic rigor and student well-being in a fast-paced environment.
- Sustaining admissions in less preferred branches despite infrastructural and faculty strength.

Institutional Roadmap for Next 10 years

Areas of focus

1. Governance Enablers

The Institution operates under a well-structured governance framework involving Board of Trustees, Governing Body, Academic Council, Board of studies and Finance committee as per the guidelines of University Grants Commission, other regulatory bodies to ensure compliance with government regulations. The power of process and people in adhering quality standards are vital to maintain and elevate academic standards. In order to maintain transparency and improve operational efficiency, the Institution envisions following goals

Short-term Goals (0-2years)

- Inclusion of Stake holders especially Alumni in decision making bodies like Governing Body, Academic Council, Board of studies and Finance Committee and other Non-Statutory Committees

Medium-terms Goals (2-5years)

- Academic values in alignment with the societal expectations to remain relevant and responsive.
- Regular monitoring of IDP through periodical reviews and timely adjustments with the progress of the Institution and feedback from stakeholders

Long-term Goals (5-10years)

- To ensure Financial Autonomy of the Institution
- To reduce carbon foot print in a phased manner and a campus free of single - use plastic

2. Financial Enablers

Being a private Institution, the self-sustainability, growth, and quality delivery are paramount, a finance enabler plays a critical, strategic and operational role. The private colleges rely only on tuition fees paid by the students. As a measure towards financial autonomy, the institution has to explore alumni donations, industry partnerships, and strategic investments to fund their operations and expansions. A finance enabler ensures optimal use of resources, compliance, and financial health—ultimately contributing to academic excellence and institutional sustainability.

Short-term Goals (0-2years)

- Formulate policies to support various academic activities, research, extension, scholarship and fee concession support besides paying the salary for the staff members.
- Appoint an Alumni Relation Officer to strengthen the alumni network and motivate them to donate funds for students' scholarships and infra expansion.

Medium-term Goals (2-5years)

- Motivate the teachers to conduct seminars and workshops only through grants received from Government /Industries
- Motivate the teachers to organise self-revenue generating programs on latest technologies.
- Establishment and interconnecting of Institute Innovation Council and Incubation Cell for design and development of prototype and commercialization
- Involve in collaborative activities with Govt, Industry sector and other organizations for leveraging resources and expertise to support the financial enablers.
- Additional outreach models for fund generation.

Long-term Goals (5-10years)

- Non-fungible sources of expenses to be identified and stopped
- Fund generation through starting of various certificate programs
- Large scale Research grants
- Alumni donations on a large scale
- Through Industry corporate social responsibility (CSR) to meet extension activities and installation of chair

3. Academic Enablers

Academic enablers are foundational elements and support mechanisms that directly contribute to achieving the goals and vision of an Institution. Academic Enablers enhance academic quality, student outcomes, faculty development, research output, and overall institutional performance and provide the support for the academic excellence, stakeholder satisfaction, societal contribution, and global competitiveness. It is the responsibility of an institution to create a learning atmosphere to every student where they acquire knowledge and skills to grow as a responsible individual.

Short-term Goals (0–2 Year)

- Conduction of Curriculum Revision Workshops aligning with Outcome-Based Education (OBE) and NEP 2020.
- Introduction of Sustainable Development Goals (SDGs) in the curriculum
- Faculty Training Programs (FDPs) in emerging technologies
- Set Up Learning Management System (LMS)
- Introduce digital platforms to streamline academic delivery.
- Audit existing labs/classrooms for upgradation.
- Introduce Industry-Oriented Electives and Internships
- Faculty Research Incentive Scheme
- Encourage publications, patents, and sponsored projects

Medium-term Goals (2-5 Years)

- Plan for physical and digital Infrastructure upgrades
- Establish Centres of Excellence (CoEs)
- Strengthening of Placement and Career Guidance Cell
- Focus on priority areas like AI, IoT, Renewable Energy, etc.,
- Implement ERP systems and use analytics to track performance

Long-term Goals (5-10 Years)

- Achieve National and Internationally recognized Accreditations
- Build a Robust Innovation and Startup Ecosystem
- Set up full-fledged Incubation Centre and Technology Business Incubator (TBI).
- Sustainable Research and Consultancy Culture
- Establish inter-disciplinary research clusters and consultancy cells.
- Strengthen Governance and Academic Autonomy
- Mature academic bodies and decision-making frameworks.
- Establish International Collaborations
- MoUs for student/faculty exchange, joint programs, global internships.
- Track Long-Term Graduate Outcomes
- Use alumni data to evaluate program effectiveness and revise strategies.

4. Research, Intellectual Property, and Supportive Enablers

A robust ecosystem of research, intellectual property (IP) management, entrepreneurship and supportive enablers forms a crucial pillar of this development plan. This report outlines the short-term, medium-term, and long-term goals in these areas, aligning with national priorities such as NEP 2020, National Innovation and Start up Policy and Atal Innovation Mission. By embedding a structured framework of research, IP development, and entrepreneurial initiatives such as incubation, venture creation and industry mentoring- the plan ensures long-term academic excellence and socio-economic impact. These goals, phased across timeframes, provide a clear roadmap for sustainable and scalable institutional growth.

Short-term Goals (0–2 Year)

- Identify thrust areas for departmental and interdisciplinary research.
- Encourage faculty members to submit minor research proposals through UGC, AICTE, DST etc.,
- Promote student research through final-year projects and innovation contests.
- Organize workshops on research methodology and scientific writing.
- Approach the nearby industries for consultancy and research projects
- Initiate faculty-student collaborative publications in reputed journals.
- Host national-level research seminars and technical symposiums.

Medium-term Goals (2–5 Years)

- Establish dedicated research centres in emerging areas AI, IoT, Renewable Energy, etc.,
- Facilitate industry-sponsored and government-funded research projects.
- Student/Faculty exchange research
- Develop institutional IP portfolio with annual targets for filings.

Long-term Goals (5–10 years)

- Achieve recognition as a research-intensive institution.
- Sign MoUs for collaborative research with national and international universities and research organizations
- Large scale generation of revenue through consultancy and funded projects.
- Develop a strong research culture integrated into undergraduate and postgraduate programs.
- Commercialize institutional IP through licensing and technology transfer

- Creating Innovation and Establishing Industry setup providing job opportunities
- Contribute to regional innovation ecosystem through IP outreach and mentoring

5. Human Resources Management Enablers

Human Resource Management (HRM) is a critical enabler in the effective implementation of an engineering college's Institutional Development Plan (IDP). Faculty, staff, and administrative personnel are the driving force behind institutional performance. A structured HRM strategy ensures the recruitment, development, motivation, and retention of quality personnel who align with the institution's academic, research, and innovation goals. By nurturing, empowering, and retaining talent, the institution can build a sustainable culture of excellence, innovation, and inclusivity.

Short-term Goals (0–2 Year)

- Recruitment of Qualified faculty and staff members ensuring diversity and equal opportunity in hiring.
- Implementation of Performance Appraisal System for faculty and staff members
- Conduct orientation and Induction Programs for new faculty and staff members covering institutional vision, policies, and teaching practices.
- Prepare and disseminate HR policy manuals on service rules, leave, grievance redressal, promotions, etc

Medium-term Goals (2–5 Years)

- Faculty Development Programs (FDPs) and Training
- Career Progression and Incentives
- Encourage faculty members to exposed Industry Practices/Training
- Support CAS (Career Advancement Scheme) and introduce performance-based incentives.
- Staff Skill upgradation for non-teaching staff in ERP, e-governance, student services, and soft skills.
- Workload and Role Optimization, optimal productivity and job satisfaction.

Long-term Goals (5–10 Years)

- Human Capital Development in alignment with HR strategy towards institutional goals for research, innovation, global collaboration, and rankings.
- Leadership Development Programs for department heads, deans, and administrative leaders to enhance strategic thinking and governance.

6. Enablers for Networking and Collaboration

In a rapidly evolving educational and industrial landscape, networking and collaboration are strategic enablers that enhance an institution's reach, relevance, and responsiveness. These enablers foster knowledge exchange, resource sharing, joint research, and global exposure.

Short-Term Goals (0–2 Year)

- Establish Institutional Linkages through collaborations with local industries, academic institutions, and professional bodies.

- Organize Guest Lectures and Webinars Join Academic & Research Networks, Affiliate with national and regional research centres
- Create a Collaboration and Outreach Cell comprising a dedicated committee to manage MoUs, partnerships, and external engagements.
- Host National/International Conferences to serve as a knowledge hub by organizing annual research summits and academic conclaves.

Medium-term Goals (2–5 Years)

- Establish formal collaborations with reputed industries, public research labs, and other engineering institutions for internships, projects, and joint programs.
- Collaborative Research and Consultancy Projects
- Undertake joint research initiatives and technology development with partners.
- Industry-Sponsored Labs and Centres
- Set up domain-specific labs or Centres of Excellence with industry partners
- Joint Certification and Skill Programs
- Offer co-branded value-added and certification courses through academic or corporate tie-ups.
- Faculty and Student Immersion Programs like semester-long student internships or faculty residences at partner institutions.

Long-term Goals (5–10 Years)

- Establish International Collaborations by signing agreements with foreign universities for joint degrees, research, and global internships.
- Develop Incubation Partnerships to collaborate with accelerators, incubators, and technology parks for innovation and startup support.
- Participate in Global Rankings and Benchmarking through participation in international quality benchmarking systems.
- Institutionalize a Networking Strategy to develop a long-term institutional roadmap for global academic diplomacy, knowledge alliances, and alumni engagement

7. Physical Enablers

A robust infrastructure enhances learning outcomes, operational efficiency, inclusivity, and future-readiness. Therefore, the physical enablers align the infrastructure development with academic, research, and outreach goals. Physical infrastructure is treated not only as a static asset but a dynamic enabler of academic excellence and institutional growth.

Short-term Goals (0–2 Year)

- Campus Infrastructure Audit to Evaluate current facilities for adequacy, safety, and compliance.
- Upgradation of Classrooms and Laboratories. Retrofit with modern furniture, smart boards, and internet access.
- Library Digitization to improve access to e-books, journals, and digital repositories.
- ICT Infrastructure enhancement by expanding campus Wi-Fi, install projectors, and upgrade computing facilities.
- Barrier-Free Access to install ramps, signage, and washroom facilities for differently-abled students and staff.

- Green Campus Initiatives (Basic)Install LED lights, water-saving devices, and promote plastic-free zones.

Medium-term Goals (2–5 Years)

- Smart Campus Systems by implementing biometric attendance, smart cards, ERP systems, and surveillance for safety and efficiency.
- Innovation and Incubation Infrastructure dedicated space for startup incubation
- Student Amenities by expanding cafeteria, common rooms, hostel blocks, and recreational zones.
- Energy and Water Management Systems, expansion of solar panels, rainwater harvesting, and waste recycling units.

Long-term Goals (5–10 Years)

- Green and Smart Campus Development Transition to a sustainable campus with IoT-enabled energy and facility management systems.
- Centre for Advanced Research and Innovation. Build state-of-the-art facilities with global standards to host funded and collaborative research.
- Create Facilities for International Student and Faculty such as high-end guest houses, international hostels, and cultural integration spaces.

8. Digital Enablers

In the era of Industry 4.0 and the NEP 2020 vision, digital transformation is essential for academic excellence, research innovation, administrative efficiency, and holistic development in engineering education. Digital enablers empower institutions to become future-ready, learner-centric, and globally competitive. We believe, digital enablers transform the way engineering institutions operate, teach, and grow and a phased and integrated approach to digital transformation is essential for realizing the vision of a modern, agile, and innovation-driven institution.

Short-term Goals (0–2 Years)

- Enhance Campus Connectivity through high-speed internet with campus-wide Wi-Fi
- Implement Learning Management System (LMS)
- Promote Digital Literacy by conducting training for faculty, staff, and students on digital tools and pedagogy.
- ERP for administration to begin automation of core processes: admissions, fees, attendance, and exam management.
- Digitization of Academic Resources provide access to e-books, e-journals, virtual labs, and digital libraries.

Medium-term Goals (2–5 Years)

- Full-Fledged ERP System to implement integrated systems for academics, finance, HR, and alumni.
- Online Classrooms and Assessments to enable virtual classes, digital exams, and online assignment systems.

- Data Analytics and Dashboards to introduce dashboards to track academic performance, research output, and student progress.
- Virtual Labs and Simulations to be deployed for engineering courses.
- Smart Classrooms by equipping classrooms with interactive panels, lecture capture systems, and digital content delivery tools.
- E-Governance Expansion to automate grievance redressal, feedback collection, and student support services.
- Cybersecurity and Data Privacy to establish secure IT policies and infrastructure to protect institutional data.

Long-term Goals (5–10 Years)

- AI and ML in Academic Processes to be used in the predictive analytics for academic advising, placement predictions, and curriculum planning.
- Digital Twin of the Institution to create a virtual replica of campus infrastructure, systems, and academic functions for simulation and planning.
- Blockchain-Based by adopting blockchain technology for issuing secure, tamper-proof degrees and certificates.
- Smart Campus Integration through the use IoT for energy management, smart lighting, automated security, and environmental monitoring.
- International Digital Collaborations to enable remote global classrooms, joint online courses, and collaborative research platforms.

Digital Inclusion and Accessibility to ensure all digital platforms are inclusive (screen readers, subtitles, multilingual access).

Action Plan and Road Map for the Goals in the IDP

Theme 1: Governance Enablers

Term	Goals	Action Plan
Short- term (0-2 years)	• Inclusion of Stake holders especially Alumni in decision making bodies like Governing Body, Academic Council and Finance Committee and other non-statutory committees	• A potential list of alumni working in reputed organizations will be prepared. • A structured framework for alumni engagement and feedback will be developed, including regular alumni meetings and digital interaction platforms. • The institution will introduce a formal policy for stakeholder inclusion and will amend relevant rules to institutionalize alumni participation in governance. • Alumni representatives will be nominated to the Governing Body, Academic Council, and Finance Committee. • Several alumni will also be invited to participate in non-statutory committees.
Medium -term (2-5years)	• Academic values in alignment with the societal expectations to remain relevant and responsive. • Regular monitoring of IDP through periodical reviews and timely adjustments with the progress of the Institution and feedback from stakeholders	• The curriculum will be revised in consultation with industry experts, alumni, and societal stakeholders to include contemporary, skill-based, and value-driven modules. • Community-based projects and service-learning programs will be introduced to foster social responsibility and relevance among students. • Emerging technology and elective courses addressing national priorities due to evolving societal and industry needs (e.g., sustainability, digital transformation, rural entrepreneurship) will be introduced. • A dedicated IDP Monitoring Committee will be constituted to conduct bi-annual reviews of the plan's implementation status. • Review findings will be reported to the Academic Council and will be used to guide timely revisions of the institutional strategy.

Long -term (5-10years)	• To ensure Financial Autonomy of the Institution • To reduce carbon foot print in a phased manner and a campus free of single use plastic	• The institution will initiate steps to enhance internal revenue generation through consultancy services, continuing education programs, and sponsored research. • Partnerships with industries and alumni for endowments and funded projects will be actively pursued. • Faculty members will be encouraged to conduct a greater number of self-support programs. • A phased green campus initiative will be launched, including installation of solar panels, adoption of LED lighting, and promotion of cycling and electric vehicles. • A comprehensive plastic-free campus policy will be implemented; awareness campaigns and audits will be conducted regularly. • Alternatives to single-use plastic (like cloth bags and steel utensils in canteens) will be adopted and promoted. • Partnerships with NGOs and student eco-clubs will lead to environmental awareness drives and tree plantation programs.

Theme 2 : Finance Enablers

Term	**Goals**	**Action Plan**
Short -term goal (0-2 year)	• Formulate policies to support various academic activities, research, extension, scholarship and fee concession support besides paying the salary for the staff members. • Appoint an Alumni Relation Officer to strengthen the alumni network and motivate them to donate funds for students' scholarships and infra expansion.	• A qualified Alumni Relations Officer will be appointed to manage alumni affairs, maintain records, and build strategic engagement. • The alumni portal will be upgraded to facilitate networking, donations, and involvement in institutional development. • Regular newsletters and events (reunions, webinars, fundraisers) will increase alumni engagement and initiate scholarship contributions and funding for infrastructure.

		Faculty will be encouraged and trained to apply for government and industry grants (AICTE, DST, MSME, DRDO, etc.). A Grants Facilitation Cell will be set up to assist with proposal writing and fund management. Multiple events will be organized using external grants, reducing the financial burden on the institution.
Medium -term (2-5 year)	• Motivate the teachers to conduct seminars and workshops only through grants received from Government /Industries • Motivate the teachers to organise self-revenue generating programs on latest technologies. • Involve in collaborative activities with Govt, Industry sector and other organizations for leveraging resources and expertise to support the financial enablers. • Additional outreach models for fund generation	• Departments will launch short-term training programs, workshops, and certification courses in trending technologies (AI, IoT, Data Science). • These programs will generate revenue, a portion of which will be ploughed back into department development and faculty incentives. • MoUs will be signed with industries, government bodies, and NGOs for resource sharing, technical support, and joint project funding. • Guest lectures, internships, and collaborative research will be initiated, improving both academic quality and financial input. • Outreach models such as continuing education programs, industry training sessions, and consultancy services will be introduced. These will help to diversify institutional income sources.
Long- Term (5-10 year)	• Non-fungible sources of expenses to be identified and stopped • Fund generation through starting of various certificate programs • Large scale Research grants • Alumni donations in a big way • Through Industry CSR to meet extension activities and installation of chair	• An internal audit and cost-optimization review will be conducted to identify recurring non-essential expenses. • Measures such as paperless administration, energy savings, and lean procurement practices will be implemented. • Several new value-added and job-oriented certificate courses will be developed, especially in collaboration with industry. • A dedicated Continuing Education Division will be

		proposed for centralized coordination and scalability. • Faculty will be mentored to submit interdisciplinary proposals for national and international research grants. • An R&D Cell will be strengthened to manage project proposals, compliance, and reporting. • High-profile alumni will be approached through focused campaigns and personal outreach. • A donor recognition mechanism will be introduced to appreciate large contributions (naming rights, plaques, etc.). • Proposals will be shared with industries under Corporate Social Responsibility (CSR) initiatives, aligned with SDGs and community development. • The focus will be on securing funding for extension activities, infrastructure, and institutional Chairs in emerging disciplines.

Theme 3: Academic Enablers

Theme	Goals	Action Plan
Short-Term (0–2 Year)	• Conduction of Curriculum Revision Workshops aligning with Outcome-Based Education (OBE) and NEP 2020. • Faculty Training Programs (FDPs) • Set Up Learning Management System (LMS) • Introduce digital platforms to streamline academic delivery. • Audit existing labs/classrooms for upgradation.	• Curriculum revision workshops will be conducted with participation from academic experts, industry representatives, and alumni. The curriculum will be updated with a focus on OBE principles, competency-based learning, and multidisciplinary components as per NEP 2020. • FDPs will be organized on emerging technologies, pedagogy, research methodology, and NEP implementation. Collaborations will be established with AICTE, ISTE, and NITTTR for certified programs. • LMS (Moodle/Google Classroom) will be implemented for digital course delivery, assignments, and assessments. Training sessions will be held for

		faculty and students to ensure a smooth transition. Tools such as Google Meet, Microsoft Teams, Virtual Labs, and online examination software will be deployed to enhance hybrid learning. • A comprehensive audit of academic infrastructure will be conducted. An upgradation plan will be formulated. Smart boards, digital projectors, and lab modernization will be initiated in Phase 1.
Medium-Term (2-5 Years)	• Introduce Industry-Oriented Electives and Internships • Plan for Physical and Digital Infrastructure Upgrades • Establish Centres of Excellence (CoEs) • Faculty Research Incentive Scheme • Encourage publications, patents, and sponsored projects. • Placement and Career Guidance Cell Strengthening • Focus on priority areas like AI, IoT, Renewable Energy, etc. • Implement ERP systems and use analytics to track performance	• Domain-specific electives (AI, IoT, Renewable Energy, Robotics, etc.) will be introduced, co-designed with industry experts. Internship MoUs will be signed with companies and start-ups. • Proposals and budgets will be approved for laboratory upgrades, Wi-Fi expansion, smart classrooms, and e-content studios. Implementation will be carried out in a phased manner. • Centres of Excellence will be launched in areas like Artificial Intelligence, Green Energy, and Advanced Manufacturing. Labs will be equipped with modern hardware and software. • An Institutional Research Policy will be introduced. Faculty will be rewarded with incentives for publications in peer-reviewed journals, patents, and funded projects. • Faculty will be encouraged to publish in Scopus/SCI-indexed journals. Workshops on patent filing and IPR will be conducted. A research proposal support cell will be established. • The Career Guidance Cell will be revamped with industry professionals as advisors. Enhanced soft skill training, resume-building workshops, and mock interviews will be conducted. • Training programs, internships, and certification courses will be

		launched in AI, IoT, Data Analytics, and Renewable Energy. Academic-industry joint activities will be held. • ERP module implementation will be initiated for student lifecycle management, attendance, finance, and HR. Analytics dashboards will be developed for academic monitoring.
Long-Term (5-10 Years)	• Achieve National & International Accreditations • Build a Robust Innovation and Startup Ecosystem • Set up full-fledged Incubation Centre and Technology Business Incubator (TBI). • Sustainable Research and Consultancy Culture • Establish inter-disciplinary research clusters and consultancy cells. • Strengthen Governance and Academic Autonomy • Mature academic bodies and decision-making frameworks. • Establish International Collaborations • MoUs for student/faculty exchange, joint programs, global internships. • Track Long-Term Graduate Outcomes • Use alumni data to evaluate program effectiveness and revise strategies.	• NBA will be applied for multiple programs. NAAC cycle will be initiated. Gap analysis will be conducted for ABET and international accreditations, and a preparatory roadmap will be followed. • A functional Institution's Innovation Council (IIC) will be formed. Regular hackathons, idea contests, mentoring sessions, and innovation exhibitions will be conducted. • Dedicated space will be allocated, and a proposal for a TBI will be submitted to DST/MSME. Partnerships will be explored for funding and mentorship from startup ecosystem enablers. • An R&D and Consultancy Cell will be formed. Faculty will be involved in funded projects and industry consultancy. Interdisciplinary working groups will be created. • Collaborative research clusters in AI for healthcare, sustainable technologies, and smart infrastructure will be initiated with cross-departmental participation. • Academic regulations will be revised, the roles of Boards of Studies (BoS) will be strengthened, and departments will be empowered for curriculum design. An academic audit mechanism will be introduced. • MoUs will be signed with international universities for faculty/student exchange, joint online courses, and internship

		programs. The first batch will participate in a virtual exchange. The alumni database will be strengthened using digital tools and social media. Surveys will be conducted to track employment, higher studies, and entrepreneurship, and the data will be used for curriculum refinement and employer feedback.

Theme 4: <u>Research, Intellectual Property, and Supportive Enablers</u>

Term	Goals	Action Taken
Short-Term (0–2 Year)	• Identify thrust areas for departmental and interdisciplinary research. • Encourage faculty members to submit minor research proposals (UGC, AICTE, DST). • Promote student research through final-year projects and innovation contests. • Organize workshops on research methodology and scientific writing.	• Departments will conduct brainstorming sessions to identify thrust areas such as AI, Sustainable Energy, and Smart Infrastructure. • Faculty sensitization sessions will be held on funding agencies and proposal writing; multiple minor research proposals will be submitted to AICTE, UGC, and DST. • Final-year projects will be aligned with research themes; student teams will participate in the Smart India Hackathon, AICTE-Vishwakarma Awards, and internal innovation contests. • Workshops will be conducted on research methodology, proposal writing, plagiarism checking, reference management, and data analysis tools.
Medium-Term (2–5 Years)	• Establish dedicated research centers in emerging areas (AI, IoT, Renewable Energy). • Facilitate industry-sponsored and government-funded research projects. • Initiate faculty-student collaborative publications in reputed journals. • Host national-level research seminars and technical symposiums.	• Research centers will be launched in AI & Machine Learning, IoT, and Renewable Energy. • Collaborative proposals will be submitted to SERB, AICTE-MODROB, and CSR arms of industries; partnerships will be established with MSMEs and corporates. • A faculty-student publication mentoring program will be

		introduced, resulting in co-authored publications in UGC-CARE and Scopus journals. • National-level conferences, symposiums, and student research meets will be organized, with proceedings published.
Long-Term (5–10 years)	• Achieve recognition as a research-intensive institution. • Sign MoUs for collaborative research with national and international universities. • Generate revenue through consultancy and funded projects. • Develop a strong research culture integrated into undergraduate and postgraduate programs. • Commercialize institutional IP through licensing and technology transfer. • Develop institutional IP portfolio with annual targets for filings. • Contribute to regional innovation ecosystem through IP outreach and mentoring	• Institutional research performance will be enhanced; applications will be submitted for recognition in ARIIA and NIRF-Innovation categories. • MoUs will be signed with premier national and international institutions for joint research and academic exchange. • Faculty will be engaged in consultancy services; the R&D cell will facilitate technical design, testing, and advisory contracts to generate revenue. • UG and PG curricula will be revised to include research components such as methodology courses and mini-projects. • Patent awareness and commercialization workshops will be conducted; technology licensing initiatives will be launched. • Annual filing targets will be set and achieved through the IPR Cell; the quality of filings will continue to improve. • Outreach programs will be held with schools, startups, and rural innovators; faculty mentoring will be enabled through IIC and EDC activities.

5.Human Resources Management Enablers

Term	Goals	Action taken
Short-Term (0–2 Years)	• Recruitment of Qualified faculty and staff members ensuring diversity and equal opportunity in hiring. • Implementation of Performance Appraisal System for faculty and staff members • Conduct orientation and Induction Programs for new faculty and staff members covering institutional vision, policies, and teaching practices. • Prepare and disseminate HR policy manuals on service rules, leave, grievance redressal, promotions, etc	• Recruitment drives will be conducted to appoint qualified faculty and staff, adhering to diversity and inclusion guidelines. • A Performance Appraisal System will be implemented using structured formats, incorporating self-assessment, peer review, and student feedback. • Orientation and induction programs will be held for newly joined staff and faculty, covering institutional ethos, code of conduct, NEP-aligned pedagogy, and administrative processes. • HR manuals will be prepared and circulated detailing service rules, leave policies, grievance procedures, and promotion criteria.
Medium-Term (2–5 Years)	• Faculty Development Programs (FDPs) and Training • Career Progression and Incentives • Support CAS (Career Advancement Scheme) and introduce performance-based incentives. • Staff Skill Upgradation for non-teaching staff in ERP, e-governance, student services, and soft skills. • Workload and Role Optimization optimal productivity and job satisfaction.	• Multiple Faculty Development Programs (FDPs) will be organized in collaboration with national agencies (AICTE, NITTTR, ISTE) covering technical and pedagogical topics. • Incentives will be introduced for faculty publishing in high-impact journals, securing grants, or mentoring innovation/startup activities. • The Career Advancement Scheme (CAS) will be facilitated with support in documentation, assessments, and compliance. • Non-teaching staff will be trained in ERP modules, e-governance tools, student data management, and communication skills. Departments will restructure workload distribution to reduce redundancy, improve efficiency, and promote work-life balance.

Long-Term (5–10 Years)	• Human Capital Development in alignment with HR strategy towards institutional goals for research, innovation, global collaboration, and rankings. • Leadership Development Programs for department heads, deans, and administrative leaders to enhance strategic thinking and governance.	• HR strategy will be aligned with the institutional vision; faculty competencies will be mapped for roles in research, innovation, and international collaboration. • Leadership development programs will be introduced for department heads and administrators, focusing on governance, strategic planning, and accreditation preparedness. • Succession planning will be initiated to build future-ready academic and administrative leaders. • Participation will be made in national and international HR benchmarking frameworks to improve institutional practices and gain global recognition.

6. Enablers for Networking and Collaboration

Term	Goals	Action Taken
Short-Term (0–2 Year)	• Establish Institutional Linkages through collaborations with local industries, academic institutions, and professional bodies. • Organize Guest Lectures and Webinars Join Academic & Research Networks Affiliate with national academic consortium and regional research clusters. • Create a Collaboration and Outreach Cell a dedicated committee to manage MoUs, partnerships, and external engagements. • Host National/International Conferences to serve as a knowledge hub by organizing annual research summits and academic conclaves.	• Institutional linkages will be established with local industries, nearby engineering colleges, and professional bodies like IEEE, ISTE, and IEI for academic cooperation. • Guest lectures, expert talks, and webinars will be regularly conducted involving industry professionals and academic experts. • Memberships in national research and academic networks, including consortia, will be joined to increase research visibility and opportunities. • A dedicated Collaboration and Outreach Cell will be formed to oversee partnerships, draft and manage MoUs, and facilitate joint activities. • National-level conferences, technical conclaves, and academic summits will be hosted to foster knowledge exchange and research dissemination.
Medium-Term (2–5 Years)	• Establish formal collaborations with reputed industries, public research labs, and other engineering institutions for internships, projects, and joint programs.	• Formal MoUs will be signed with reputed industries, R&D labs, and technical institutions for collaborative programs, student projects, and internships.

	• Collaborative Research and Consultancy Projects • Undertake joint research initiatives and technology development with partners. • Industry-Sponsored Labs and Centres • Set up domain-specific labs or Centres of Excellence with industry partners • Joint Certification and Skill Programs • Offer co-branded value-added and certification courses through academic or corporate tie-ups. • Faculty and Student Immersion Programs like semester-long student internships or faculty residencies at partner institutions.	• Collaborative research projects will be initiated with funding support from industry and government agencies, focusing on areas such as renewable energy and IoT. • Industry-sponsored labs and Centres of Excellence will be established in areas like Data Science, Embedded Systems, and Green Energy. • Co-branded certification programs will be launched in partnership with industry players (e.g., Autodesk, Texas Instruments) on emerging technologies. • Semester-long student internships and short-term faculty immersion programs will be organized through partnering institutions and industries.
Long-term (5–10 Years)	• Establish International Collaborations by signing agreements with foreign universities for joint degrees, research, and global internships. • Develop Incubation Partnerships to collaborate with accelerators, incubators, and technology parks for innovation and startup support. • Participate in Global Rankings and Benchmarking through participation in international quality benchmarking systems. • Institutionalize a Networking Strategy to develop a long-term institutional roadmap for global academic diplomacy, knowledge alliances, and alumni engagement.	• International collaborations will be forged with universities from Europe, Southeast Asia, and the U.S. for joint degree programs, research, and global internships. • Partnerships will be initiated with national incubators, industry accelerators, and technology parks to support student startups and innovation. • Participation will be made in global benchmarking systems (e.g., QS I-Gauge, Times Higher Education Impact Rankings) for quality assessment and visibility. • A formal Institutional Networking Strategy will be developed to guide long-term global engagement, enhance alumni involvement, and foster academic diplomacy.

7. Physical Enablers

Term	Goals	Action Taken
Short-term (0–2 Year)	• Campus Infrastructure Audit to Evaluate current facilities for adequacy, safety, and compliance. • Upgradation of Classrooms and Laboratories Retrofit with	• A comprehensive infrastructure audit will be conducted covering safety, classroom utility, and compliance with academic requirements. • Classrooms and labs will be upgraded with smart boards,

	modern furniture, smart boards, and internet access. • Library Digitization Improve access to e-books, journals, and digital repositories. • ICT Infrastructure Enhancement Expand campus Wi-Fi, install projectors, and upgrade computing facilities. • Barrier-Free Access to install ramps, signage, and washroom facilities for differently-abled students and staff. • Green Campus Initiatives (Basic) Install LED lights, water-saving devices, and promote plastic-free zones.	ergonomic furniture, high-speed internet, and modern lab equipment. • Library services will be digitized through subscriptions to e-journals (e.g., DELNET, NDL) and installation of e-resource access terminals. • ICT infrastructure will be enhanced by expanding campus-wide Wi-Fi coverage and upgrading computer labs and multimedia facilities. • Barrier-free access features will be introduced, including ramps, tactile paths, accessible restrooms, and signage for differently-abled individuals. • Basic green campus initiatives will be undertaken, including LED lighting installations, promotion of reusable materials, and initial rainwater conservation efforts.
Medium-term (2–5 Years)	• Construction of New Labs and add space for interdisciplinary research centres. • Smart Campus Systems by implementing biometric attendance, smart cards, ERP systems, and surveillance for safety and efficiency. • Innovation and Incubation Infrastructure dedicated space for startup incubation, Student Amenities by expanding cafeteria, common rooms, hostel blocks, and recreational zones. • Library and Research Space Modernization by research pods, and high-speed systems. • Energy and Water Management Systems, expansion of solar panels, rainwater harvesting, and waste recycling units.	• New laboratories and multi-purpose research rooms will be constructed to support interdisciplinary R&D initiatives. • Smart campus features will be introduced, such as biometric-based attendance, RFID-based ID cards, and ERP systems for academic operations. • A dedicated Innovation and Incubation Facility will be established with plug-and-play workspaces and mentoring zones. • Student amenities will be expanded, including a modernized cafeteria, refurbished hostels, common rooms, and added sports facilities. • Research-friendly library spaces will be created with high-speed workstations, collaborative pods, and access to global research databases. • Sustainable infrastructure projects will be expanded with the installation of solar panels, advanced rainwater harvesting systems, and a functional waste segregation and recycling unit.
Long-term (3–5+ Years)	• Green and Smart Campus Development Transition to a sustainable campus with IoT-	• Transition to a Green and Smart Campus will be underway, incorporating IoT-based energy

	enabled energy and facility management systems. • Centre for Advanced Research and Innovation Build state-of-the-art facilities with global standards to host funded and collaborative research. • Integrated Campus Infrastructure Master plan with zoning for academics, admin, hostels, sports, and residential quarters. • International Student and Faculty Facilities Create high-end guest houses, international hostels, and cultural integration spaces.	monitoring and digital facility management systems. • The Centre for Advanced Research and Innovation will be constructed, equipped with international-grade laboratories and project incubation spaces. • A master campus zoning plan will be prepared and partially implemented for integrated academic, residential, sports, and administrative use. Facilities will be created to support international students and faculty, including guest houses, cultural centres, and global student interaction zones.

8. Digital Enablers

Term	Goals	Action Taken
Short-term **(0–2 Year)**	• Enhance Campus Connectivity through high-speed internet with campus-wide Wi-Fi. • Implement Learning Management System (LMS) • Promote Digital Literacy Conduct training for faculty, staff, and students on digital tools and pedagogy. • ERP for Administration to begin automation of core processes: admissions, fees, attendance, and exam management. • Digitization of Academic Resources Provide access to e-books, e-journals, virtual labs, and digital libraries.	• High-speed internet will be installed with seamless campus-wide Wi-Fi to enhance connectivity across academic blocks and hostels. • An Institutional Learning Management System (LMS) will be implemented (e.g., Moodle/Google Classroom) for managing course content, assessments, and student interaction. • Hands-on digital literacy training will be conducted for faculty, staff, and students on digital teaching tools, virtual classrooms, and e-content development. • A basic ERP system will be introduced for automation of administrative processes such as admissions, fee collection, attendance, and examination management. • Academic resources will be digitized with subscriptions to e-books, journals, online databases, and integration with virtual lab platforms (e.g., Amrita VLab, IIT-Bombay).

Medium-Term **(2–5 Years)**	• Full-Fledged ERP System Implement integrated systems for academics, finance, HR, and alumni. • Online Classrooms and Assessments to enable virtual classes, digital exams, and online assignment systems. • Data Analytics and Dashboards to introduce dashboards to track academic performance, research output, and student progress. • Virtual Labs and Simulations to be deployed for engineering courses. • Smart Classrooms by equipping classrooms with interactive panels, lecture capture systems, and digital content delivery tools. • E-Governance Expansion to automate grievance redressal, feedback collection, and student support services. • Cybersecurity and Data Privacy to establish secure IT policies and infrastructure to protect institutional data.	• The ERP will be expanded into a full-fledged system integrating academics, finance, HR management, alumni tracking, and internal communication. • Virtual classrooms will be established, using platforms like Google Meet and MS Teams for online classes, assessments, and assignment submissions. Academic performance dashboards will be developed for tracking student outcomes, research activity, and institutional progress using analytics tools. • Virtual labs will be introduced across engineering departments to support remote experimentation and simulation-based learning. • Smart classrooms will be set up with interactive panels, lecture capture tools, and multimedia content delivery systems. • E-governance portals will be developed for digital grievance redressal, feedback management, and student services. • Robust cybersecurity policies, firewalls, data encryption protocols, and staff training will be instituted to protect institutional data and privacy.
Long-term (5–10 Years)	• AI and ML in Academic Processes to be used in the predictive analytics for academic advising, placement predictions, and curriculum planning. • Digital Twin of the Institution Create a virtual replica of campus infrastructure, systems, and academic functions for simulation and planning. • Blockchain-Based Credentialing Adopt blockchain technology for issuing secure, tamper-proof degrees and certificates. • Smart Campus Integration Use IoT for energy management, smart	• The use of AI/ML will be initiated for academic planning, including predictive models for student performance, dropout prevention, and placement forecasting. • A Digital Twin of the campus will be conceptualized and built to simulate resource use, infrastructure planning, and academic activities. • A blockchain-based credentialing system will be piloted for issuing secure, verifiable student transcripts and degree certificates.

	lighting, automated security, and environmental monitoring. • International Digital Collaborations to enable remote global classrooms, joint online courses, and collaborative research platforms. • Digital Inclusion and Accessibility to ensure all digital platforms are inclusive (screen readers, subtitles, multilingual access).	• IoT-based smart campus technologies will be adopted for energy monitoring, automatic lighting, attendance tracking, and environmental sensors. • International virtual collaboration will be enabled via digital classrooms and co-hosted online courses with global partner institutions. Digital inclusivity will be ensured by integrating screen readers, subtitle generators, and multi-language interfaces for diverse learner accessibility.

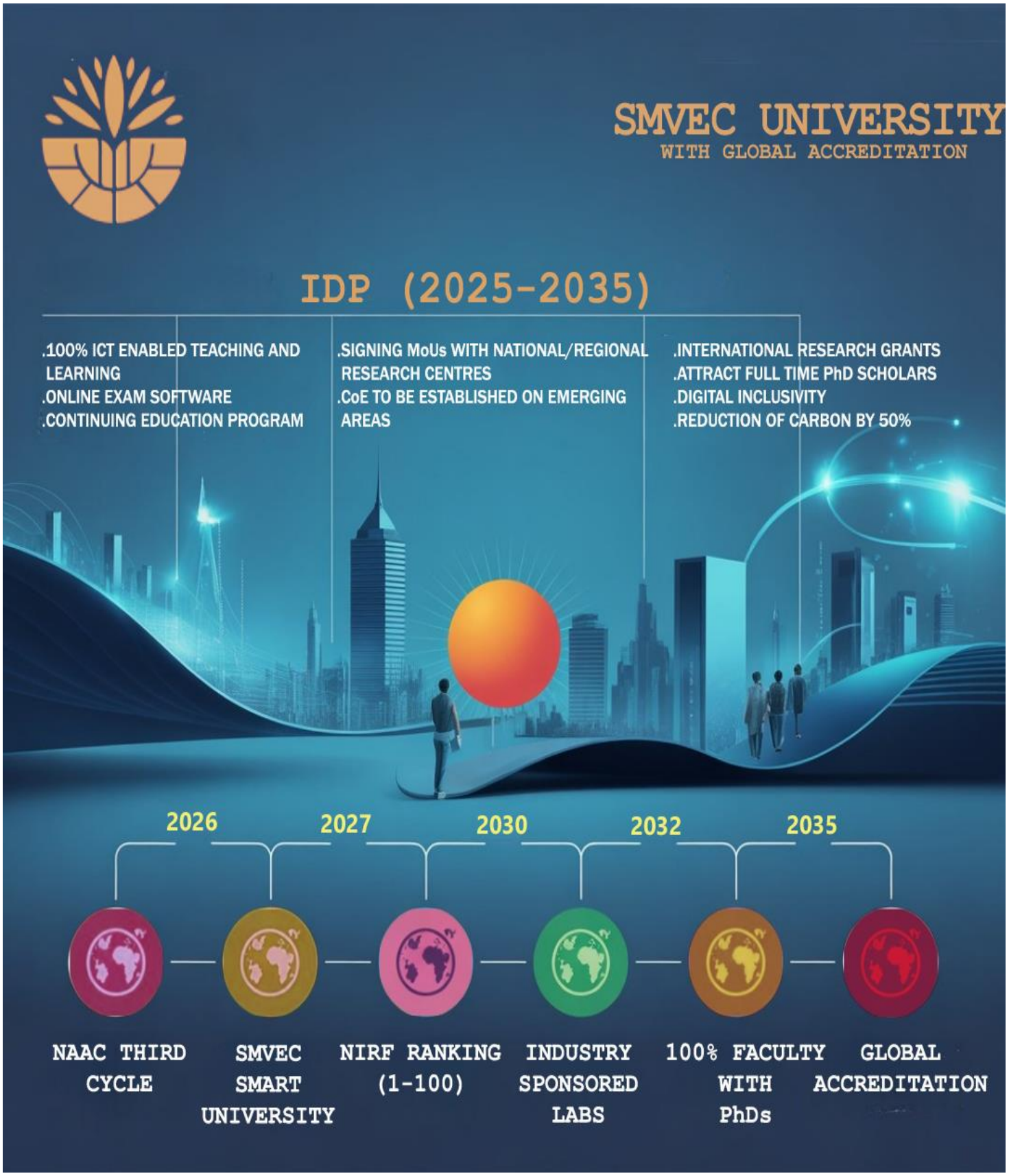
Concluding Remarks

As we embark on a transformative 10-year journey, Sri Manakula Vinayagar Engineering College commits to evolving from an autonomous engineering college into a globally accredited, degree-granting university. Anchored in UGC's Institutional Development Plan guidelines and the mandates of NEP 2020, this plan charts a path toward excellence across governance, curriculum, research, infrastructure, and global quality standards

A dedicated **IDP Strategy Team / College Development Committee**, comprising senior leadership, department heads, finance and R&D representatives, will steward progress through scheduled reviews, KPI tracking, progress reporting, and timely mid-course adjustments—ensuring alignment with regulatory and UGC timelines. Continuous stakeholder engagement adds transparency, feedback, and dynamism to the process

As we pursue prestigious national and global accreditations, we envision becoming a full-fledged university empowered to offer multidisciplinary undergraduate, postgraduate, and research programs by 2035

We call upon the entire institutional community—faculty, students, alumni, industry partners, and regulators—to join hands in actualizing this vision. This IDP is not a static roadmap but a **living commitment to excellence, innovation, and global relevance**. Together, we will realize Sri Manakula Vinayagar Engineering College as a world-class university by 2035, distinguished by academic rigor, societal impact, and institutional resilience.


SMVEC UNIVERSITY
WITH GLOBAL ACCREDITATION
IDP (2025-2035)
.100% ICT ENABLED TEACHING AND LEARNING
.ONLINE EXAM SOFTWARE
.CONTINUING EDUCATION PROGRAM
.SIGNING MoUs WITH NATIONAL/REGIONAL RESEARCH CENTRES
.CoE TO BE ESTABLISHED ON EMERGING AREAS
.INTERNATIONAL RESEARCH GRANTS
.ATTRACT FULL TIME PhD SCHOLARS
.DIGITAL INCLUSIVITY
.REDUCTION OF CARBON BY 50%
2026
2027
2030
2032
2035
NAAC THIRD CYCLE
SMVEC SMART UNIVERSITY
NIRF RANKING (1-100)
INDUSTRY SPONSORED LABS
100% FACULTY WITH PhDs
GLOBAL ACCREDITATION