

# **FRANCIS XAVIER ENGINEERING COLLEGE**

## **An Autonomous Institution**



# **STRATEGIC PLAN**

## **[2024 - 2029]**

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## **Preamble**

The Strategic Plan (2024–2029) of the Institute has been formulated to serve as a guiding framework for achieving academic excellence, fostering innovation, and fulfilling the institution’s commitment to education with excellence and ethics while striving to reach the unreached. Rooted in the Vision “To provide education in Engineering with excellence and ethics and to reach the unreached,” and inspired by the Mission “To create innovative and vibrant young leaders and entrepreneurs in Engineering and Technology for building India as a super knowledge power and blossom into a University of excellence recognized globally,” this plan charts a purposeful path for the next five years.

In an era of rapid technological transformation and global challenges, the Strategic Plan (2024–2029) focuses on strengthening the institution’s core areas—teaching-learning, research and innovation, entrepreneurship, community engagement, and institutional governance. It aims to equip students and faculty with the competencies, ethics, and global perspective required to contribute meaningfully to the nation’s growth and the advancement of society.

## **Overview of the Institute**

Francis Xavier Engineering College established in 2000 was conferred Autonomous in 2019. Since inception, the college has been in the forefront in providing the best-in-class Education. The College offers 8 UG Programmes and 7 PG Programmes. 5 Departments are recognized as Research Centres by Anna University, Chennai. The programmes offered are approved by AICTE and the Institution is affiliated to Anna University, Chennai. Four Programmes (CSE, ECE, EEE, Mech) are NBA Accredited. The college is recognised under Section 2(f) & 12(B) of the UGC Act, 1956. The Institution is DST-FIST Supported. The College is a mentor institution for 11 other Institutions under AICTE- Margdharshan Scheme. The College has been ranked in the Band 51-100, in the NIRF India Rankings under Innovation Category by the Ministry of Education (MoE), Govt. of India. The College is awarded with 'Platinum Rating' in AICTE – CII Survey of Industry Linked Technical Institutes 2020. Under the guidance of the MoE's Innovation Cell (MIC), Govt. of India, Francis Xavier Engineering College has established Institution's Innovation Council (IIC) and the college has been awarded with the topmost 4-star rating by MoE's Innovation Cell for building the culture of Innovation and Entrepreneurship among the students. With this highest star rating, FXEC is one among the Elite 142 Institutions in India, One among the premier 61 Institutions in Southern States and one among the 100 Mentor Institutions in India with AICTE Funding. The college received "Katrak Award" - the Best college of Engineering in Placements in South Tamil Nadu from News18. The College has also received "Bhumi Award" for maintaining an eco-friendly campus. The college has also been recognized with PLATINUM Rating by AICTE-CII Survey conducted for Industry Linked Technical Institutions. In the Competition Success Review - CSR Engineering Colleges Survey, the institution has been acknowledged as the Top Prominent and well known colleges of India. In the chronicle - All India Engineering Colleges Survey 2023, the Institution is acknowledged as one of the Top Engineering Colleges in the Southern region. Careers360 has ranked the institution with AAA+ Status. For the support rendered by the Institution to the District Administration in implementing Government Welfare Schemes in the district, the institution received the appreciation certificate from Dr. K P Karthikeyan, IAS, Tirunelveli District collector.

## Genesis of FXEC

The Institute, established in the year **2000** by St. Xavier's Educational trust under the leadership of founder chairman Dr. S. Cletus Babu, embarked on its academic journey with a commitment to excellence in engineering education. Nothing better describes the life of Dr. S. Cletus Babu, Founder of St. Xavier Educational Trust, better than this quote

***"I slept and dreamt that life was joy. I awoke and saw that life was service. I acted and behold, service was joy". – Rabindranath Tagore.***

A priest who gave up his calling to plunge himself full time into the service of humanity is a heart-warming story.

St. Xavier's Educational Trust located in Tirunelveli district of Tamil Nadu, is a non-profit educational trust founded in 1989. The mission of the trust is primarily cantered on delivering educational services across multiple affiliated institutions, leveraging education as a long-term tool for societal transformation. The educational institutions under the trust provides education to rural youth and they serve over 650 villages in Tirunelveli, Thoothukudi, Tenkasi and Kanyakumari districts of Tamil Nadu.



**His Excellency former President**

**Dr. A P J Abdul Kalam's visit to our Campus**



**Abdul Kalam Seva Ratna Award**

**from His Holiness Dalai Lama**

## Academic journey

The institute Francis Xavier Engineering College fondly known as FX Engineering College was established in the year 2000. It earned **ISO certification in 2001**, ensuring quality management in all institutional processes. The Institute achieved its first **National Board of Accreditation (NBA)** accreditation under the **input-output model** for three years (2011–2014), marking a milestone in quality assurance. It further gained **UGC 12(f) and 12(B) recognition in 2014 and 2015**, enabling research and development grants. Transitioning to the **Outcome-Based Education (OBE)** framework, the Institute secured **NBA accreditation** again in **2017**, reinforcing its commitment to continuous improvement. With **DST–FIST support in 2018**, the Institute strengthened its research infrastructure. The conferment of **Autonomous Status in 2019** for a period of ten years has empowered the Institute to design innovative curricula and pursue academic excellence with enhanced flexibility and global relevance.



Academic journey of FXEC

## SWOC Analysis of the Institution

Category	Description
<b>Strengths (S)</b>	<ul style="list-style-type: none"> <li>❖ Qualified and experienced faculty with multidisciplinary expertise.</li> <li>❖ Outcome-Based Education (OBE) system effectively implemented.</li> <li>❖ Autonomous status enabling curriculum flexibility and innovation.</li> <li>❖ Well-equipped laboratories, workshops, and ICT-enabled classrooms.</li> <li>❖ Active Training and Placement Cell with strong industry linkages.</li> <li>❖ Research centres recognized by universities and funding agencies.</li> <li>❖ Supportive management and decentralized administrative structure.</li> <li>❖ ERP-based academic and administrative management.</li> </ul>
<b>Weaknesses (W)</b>	<ul style="list-style-type: none"> <li>❖ Limited number of funded research projects and patents.</li> <li>❖ Need for improvement in publications in reputed journals.</li> <li>❖ Moderate alumni involvement in mentoring and institutional development.</li> <li>❖ Inadequate consultancy and industry-sponsored research.</li> <li>❖ Lesser exposure to international collaborations and exchange programs.</li> <li>❖ Dependence on regional industries for internships and placements.</li> </ul>
<b>Opportunities (O)</b>	<ul style="list-style-type: none"> <li>❖ Introduction of emerging technology programs (AI, IoT, EV, and Green Energy).</li> <li>❖ Access to government and private funding for R&amp;D and innovation.</li> <li>❖ Collaboration with industries for Centres of Excellence and skill enhancement.</li> <li>❖ Strengthening of entrepreneurship and incubation activities.</li> <li>❖ Potential for global academic collaborations and online learning platforms.</li> <li>❖ Implementation of digital and experiential learning methodologies.</li> </ul>
<b>Challenges (C)</b>	<ul style="list-style-type: none"> <li>❖ Rapid technological advancement requiring frequent curriculum updates</li> <li>❖ Competition among institutions for quality admissions.</li> <li>❖ Retention of skilled and research-oriented faculty.</li> <li>❖ Bridging the gap between academic learning and industry expectations.</li> <li>❖ Ensuring sustainable funding and infrastructure maintenance.</li> <li>❖ Enhancing graduate employability and professional competencies.</li> </ul>

## Strategic Goals of the Institution

Key Parameter	Strategic Goals
<b>1. Academic Excellence</b>	<ul style="list-style-type: none"> <li>❖ Continuously enhance the quality of teaching-learning processes through Outcome-Based Education (OBE) and learner-centric pedagogies.</li> <li>❖ Periodically revise and update curricula to align with emerging technologies and industry needs.</li> <li>❖ Promote interdisciplinary and experiential learning through projects, internships, and fieldwork.</li> <li>❖ Strengthen academic support systems for slow and advanced learners to ensure overall student success.</li> <li>❖ • Integrate digital learning platforms, MOOCs, and blended learning models to improve academic delivery.</li> </ul>
<b>2. Research Excellence</b>	<ul style="list-style-type: none"> <li>❖ Establish and strengthen recognized research centres in core and emerging areas of engineering and technology.</li> <li>❖ Encourage faculty and students to undertake funded research projects from national and international agencies.</li> <li>❖ Enhance research publications in peer-reviewed and high-impact journals.</li> <li>❖ Promote collaborative and interdisciplinary research with industries and academic institutions.</li> <li>❖ Facilitate patent filing, prototype development, and technology transfer activities.</li> </ul>
<b>3. Capacity Building (Faculty and Students)</b>	<ul style="list-style-type: none"> <li>❖ Implement continuous professional development programs for faculty through FDPs, workshops, and higher studies support.</li> <li>❖ Develop leadership and mentoring capabilities among faculty and staff.</li> <li>❖ Strengthen student skill development through training on technical, communication, and employability competencies.</li> <li>❖ Encourage participation in national and international competitions, conferences, and hackathons.</li> <li>❖ Foster a culture of lifelong learning and self-directed professional growth.</li> </ul>
<b>4. Global Visibility and Collaboration</b>	<ul style="list-style-type: none"> <li>❖ Build international partnerships with reputed universities</li> </ul>
<b>5. Innovation, Incubation, and Entrepreneurship</b>	<ul style="list-style-type: none"> <li>❖ Establish innovation and incubation centers to promote start-up culture and entrepreneurship among students and faculty.</li> <li>❖ Provide seed funding, mentoring, and industry networking support for innovative ideas.</li> <li>❖ Integrate design thinking, product development, and entrepreneurship modules into the curriculum.</li> <li>❖ Collaborate with industry partners and government agencies to create innovation ecosystems.</li> </ul>

<b>Key Parameter</b>	<b>Strategic Goals</b>
	<ul style="list-style-type: none"> <li>❖ Recognize and reward innovative projects, prototypes, and start-up ventures.</li> </ul>
<b>6. Sustainability and Social Responsibility</b>	<ul style="list-style-type: none"> <li>❖ Promote eco-friendly and energy-efficient campus initiatives through green practices.</li> <li>❖ Integrate sustainable engineering concepts in curriculum and research.</li> <li>❖ Engage faculty and students in community development and rural technology outreach programs.</li> <li>❖ Strengthen institutional governance, transparency, and financial sustainability mechanisms.</li> <li>❖ Nurture ethical, environmental, and social consciousness among students and stakeholders.</li> </ul>

## Strategic Implementation Matrix

Key Parameter	Strategic Goal	Key Initiatives	Action Plans	Responsible Units	Key Performance Indicators (KPIs)
<b>1. Academic Excellence</b>	Enhance the quality of teaching-learning and student outcomes.	1.1 Implement Outcome-Based Education (OBE) across all programs. 1.2 Strengthen curriculum design and delivery using digital pedagogy. 1.3 Promote experiential and interdisciplinary learning.	<ul style="list-style-type: none"> <li>• Conduct faculty training on OBE practices.</li> <li>• Map COs-POs-PSOs and measure attainment.</li> <li>• Introduce project-based and problem-based learning.</li> <li>• Integrate MOOCs and digital resources in courses.</li> </ul>	Dean (Academics), HoDs, IQAC	<ul style="list-style-type: none"> <li>• Course attainment levels <math>\geq</math> target.</li> <li>• % of courses with experiential learning components.</li> <li>• Student feedback score <math>\geq</math> benchmark.</li> </ul>
<b>2. Research Excellence</b>	Build a strong research and innovation culture.	2.1 Strengthen institutional research centres. 2.2 Enhance funded project and publication output. 2.3 Encourage interdepartmental and collaborative research.	<ul style="list-style-type: none"> <li>• Establish Research &amp; Innovation Committee.</li> <li>• Conduct workshops on proposal writing and IPR.</li> <li>• Identify and apply for national / international funding.</li> <li>• Introduce internal research seed grants.</li> </ul>	Dean (R&D), Research Coordinators, HoDs	<ul style="list-style-type: none"> <li>• No. of funded projects per year.</li> <li>• No. of Scopus/SCI-indexed publications.</li> <li>• No. of patents filed/granted.</li> </ul>
<b>3. Capacity Building (Faculty &amp; Students)</b>	Strengthen competencies and leadership potential.	3.1 Implement continuous faculty development programs (FDPs). 3.2 Enhance student	<ul style="list-style-type: none"> <li>• Organize FDPs and workshops on emerging areas.</li> <li>• Conduct technical</li> </ul>	HRD Cell, Training & Placement Cell, HoDs	<ul style="list-style-type: none"> <li>• No. of FDPs per year.</li> <li>• % of students placed.</li> <li>• No. of student awards/competitions won.</li> </ul>

Key Parameter	Strategic Goal	Key Initiatives	Action Plans	Responsible Units	Key Performance Indicators (KPIs)
		employability and soft skills. 3.3 Encourage participation in professional societies and competitions.	training, communication skill programs, and mock interviews. • Facilitate participation in hackathons, SAE, ASME, IEEE events.		
<b>4. Global Visibility &amp; Collaboration</b>	Strengthen international engagement and institutional reputation.	4.1 Establish MoUs with foreign universities and industries. 4.2 Promote faculty and student exchange programs. 4.3 Participate in global ranking and accreditation initiatives.	<ul style="list-style-type: none"> <li>Identify and formalize 3–5 global partnerships.</li> <li>Organize international conferences and guest lectures.</li> <li>Submit data to global ranking agencies (e.g., QS, THE).</li> </ul>	Dean (International Affairs), IQAC, Principal	<ul style="list-style-type: none"> <li>No. of active MoUs.</li> <li>No. of international collaborations/projects.</li> <li>Improvement in institutional</li> </ul>
<b>5. Innovation, Incubation &amp; Entrepreneurship</b>	Foster innovation culture and entrepreneurial ecosystem.	5.1 Establish incubation and start-up support cell. 5.2 Integrate innovation and entrepreneurship into curriculum. 5.3 Build partnerships with industry mentors and investors.	<ul style="list-style-type: none"> <li>Set up Incubation Centre and EDC.</li> <li>Organize ideation, start-up bootcamps, and innovation expos.</li> <li>Provide seed grants and mentor support for start-ups.</li> </ul>	EDC, IIC (Institution's Innovation Council), HoDs	<ul style="list-style-type: none"> <li>No. of start-ups incubated.</li> <li>No. of innovation awards received.</li> <li>Amount of funding mobilized through start-ups.</li> </ul>
<b>6. Sustainability &amp; Social Responsibility</b>	Promote green campus, social engagement, and governance.	6.1 Implement green initiatives and energy management. 6.2 Strengthen community engagement and rural outreach.	<ul style="list-style-type: none"> <li>Install solar panels, waste management systems.</li> <li>Conduct NSS, community development,</li> </ul>	Campus Manager, NSS Cell, IQAC, Administrative Office	<ul style="list-style-type: none"> <li>% of renewable energy usage.</li> <li>No. of community projects per year.</li> <li>Audit compliance and stakeholder satisfaction reports.</li> </ul>

Key Parameter	Strategic Goal	Key Initiatives	Action Plans	Responsible Units	Key Performance Indicators (KPIs)
		6.3 Ensure institutional governance and transparency.	and rural tech projects. • Regularly review governance through IQAC and statutory bodies.		

## Strategic implementation through DDP

The **Department Development Plan (DDP)** serves as a systematic framework that translates the **Institution's Strategic Goals** into actionable and measurable activities at the departmental level. It ensures that every academic department contributes effectively to the institution's vision, mission, and long-term strategic objectives through focused planning, implementation, and continuous improvement.

The DDP encompasses **70 key parameters** that holistically cover academic, research, administrative, and extension dimensions of departmental functioning. These parameters are carefully aligned with the **six core strategic thrust areas** — *Academic Excellence, Research Excellence, Capacity Building, Global Collaboration, Innovation & Entrepreneurship, and Sustainability*.

Each parameter within the plan defines **specific developmental objectives, initiatives, performance indicators, and timelines**, enabling systematic monitoring and evaluation of progress. This comprehensive approach fosters decentralization, accountability, and evidence-based improvement across all academic units.

By integrating the DDP with institutional quality assurance mechanisms such as **IQAC reviews, outcome assessments, and annual strategic audits**, departments are empowered to:

- Enhance curriculum delivery and academic performance,
- Strengthen research and innovation culture,
- Develop faculty and student competencies,
- Expand industry and global collaborations, and
- Promote sustainable and socially responsible practices.

In essence, the Department Development Plan acts as the **operational backbone** for implementing the institution's strategic vision — ensuring that every department functions as a dynamic contributor to academic excellence, innovation, and holistic institutional growth.

## Department Development Plan (DDP) Parameters Aligned with Strategic Thrust Areas

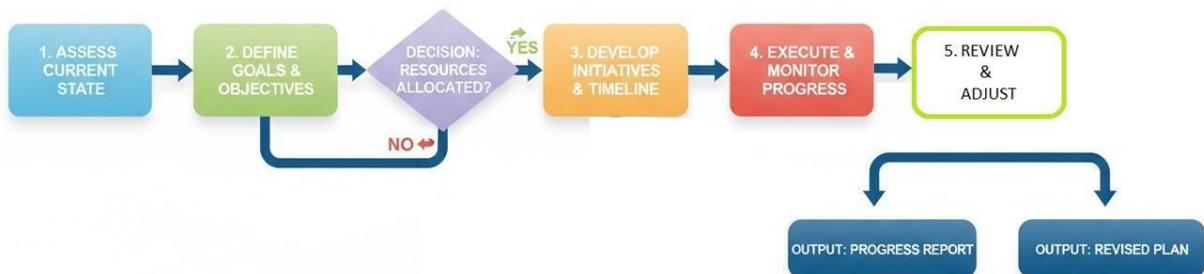
S. No.	Strategic Thrust Area	Key Parameters (Department-Level Activities)
<b>1</b>	<b>Academic Excellence</b>	1. Industry / Reputed Institute (NIRF Rated) / University Interaction (Guest Lecture) 2. Workshops / Training Organized (External Resource Person Only) 3. Faculty Training / Workshop (Internal) 4. Faculty Training / Workshop Organized 5. Value Added Courses (Except SVAC) 6. Leader of the Week / Association Activities (e.g., Hackathon, Paper Presentation, Debugging) 7. Industrial Visits / Field Visits 8. SWAYAM / MOOC / NPTEL Course with E-Certificate 9. Pedagogical Training / Initiatives for Faculties 10. Innovation in Teaching–Learning Process 11. Industry Supported Course 12. Smart Classroom – ICT Enabled (Interactive Board) 13. Publication of Monthly Magazine to Stakeholders 14. Website Updation 15. Evening Skill Program 16. Night Skill Program 17. FX Assessment Portal Clearance 18. Student NPTEL Certification
<b>2</b>	<b>Research Excellence</b>	19. Publications in Refereed Journals 20. Publications in Refereed Journals with Industry Association 21. Patent Filing 22. Funding Project Proposals 23. Inviting Experts from Reputed Research Laboratories 24. Organizing Scopus Indexed International Conference 25. Industrial Consultancy Projects 26. Recognized Research Centre 27. National / International Fellowship Award for Advanced Studies / Research 28. Scopus Indexed Books / Chapters in Edited Volumes 29. Enrolling for Ph.D. 30. Completion of Ph.D. within Stipulated Duration 31. Supervisorship 32. Citation of the Department
<b>3</b>	<b>Capacity Building (Faculty and Students)</b>	33. Faculty Orientation / Development (External Institution / Industry / International Universities like MIT, Harvard, etc.) 34. Sponsored Training Program (STTP / FDP / Workshop) 35. Training Non-Teaching Staff 36. Counseling for Higher Studies (GATE, GMAT, GRE, TOEFL, IELTS, etc.) and its Output 37. Training Offered to Industry Staff (Low, Middle Level, and Executive Training)

<b>S. No.</b>	<b>Strategic Thrust Area</b>	<b>Key Parameters (Department-Level Activities)</b>
		38. Purchase of Lab Equipment 39. Purchase of Lab Accessories / Tools / Consumables / Library Books 40. Computers and Software Purchase Details 41. Professor in Practice – Industry Experts as Visiting Professors 42. Institutional Bodies / Sub-Committee Meetings 43. IQAC Activities
<b>4</b>	<b>Global Visibility &amp; Collaboration</b>	44. Collaborative Activity (Industry or Institute Visit) 45. Guest Lecture by Foreign University Professor 46. MoU Signed (MNC, Large Scale) 47. Signing of MoU with Foreign University 48. Participation of Students in Mobility Program 49. HR Conclave 50. Alumni Interaction 51. Alumni Meets 52. Placement Arranged through Alumni
<b>5</b>	<b>Innovation, Incubation &amp; Entrepreneurship</b>	53. Developing MOOC Courses 54. Industry Collaborative Lab Establishment 55. Applying Students' Projects to TNSCST / Niral Thiruvizha 56. Applying Projects to SIH 57. Applying Projects to MSME 58. Applying Projects to IVP 59. Industrial Training 60. Placement 61. Placement Arranged through Company Visits 62. Establishment of Mentorship Companies for Startups 63. Entrepreneurship / EDI Activities 64. EDP / WEDP for Faculties 65. Professional Society Activities
<b>6</b>	<b>Sustainability &amp; Social Responsibility</b>	66. All Clubs – Establishment including NSS, YRC, RRC 67. Extension Activities – Social and Holistic Development 68. Social Media Updation 69. Students' Redressal and Other Committee Meetings 70. Community-Oriented and Governance-Linked Institutional Mechanisms (Embedded in IQAC & DDP Review)

## Monitoring process of Strategic plan

The planned Department Development Plan [DDP] is done in the following ways the department is allowed to plan for their activities from beginning of June to end of May month of subsequent year. The faculties are assigned with task by the IQAC team from the data obtained through department development plan. Once the task is assigned the concerned faculty create activity code through faculty information portal - an ERP source of the institution. The IQAC team check for the documentation credentials and either reject in case of discrepancy or approve if everything as prescribed by the IQAC is correct. The activities are reviewed by the academics professor along with director IQAC during 2<sup>nd</sup> week of every month. The approved activities of the faculty is considered for department's successful completion of plan.

### DEPARTMENT DEVELOPMENT PLAN: STRATEGY & EXECUTION



# Tracking through Key Performance Indicators

## 1. ACADEMIC EXCELLENCE

The progress in the implementation of stated strategy shall be tracked through appropriately evolved metrics for defined Key Performance Indicator (KPI) and set targets. A tentative scheme is furnished below:

- Adopting Outcome Based Education system
- Revision of curriculum on need basis
- Encouraging faculty to attend and organize more number of FDP/ conferences/workshops.
- Using ICT based techniques teaching learning process
- Lectures by Industry experts in selected courses
- Mentoring system for the students, emphasis on slow learners.
- Encouraging faculty to pursue MOOC programs for better teaching learning
- Motivating faculty to adopt interactive learning pedagogy
- Improving existing laboratories / establishing state of art laboratories in various departments as Centre of excellence in core programs.
- Facilitating the lab availability beyond working hours
- Establishing IIC in each department.

<b>Outcome for Academic Excellence-Targets</b>					
<b>Particulars</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
<b>KPI 1:Programme Offerings</b>					
% of specialized or inter-disciplinary programs	10%	20%	30%	40%	50%
<b>KPI 2:Pedagogical Innovations</b>					
% of UG programs with embedded research component	1	2	4	8	16
% of Blended learning in course curriculum	1	2	4	8	16
No. of Active Learning Classrooms	2	4	8	16	32
<b>KPI 3:Continuous Professional Learning</b>					
No of online/distance education courses	4	8	16	32	64
No. of working professionals enrolled per year	60	120	180	240	300
<b>KPI 4:Graduate Outcomes</b>					
Graduate Employment Rate(General)	100%	100%	100%	100%	100%

Graduate Employment Rate (Marquee companies)	75%	80%	85%	90%	95%
Academic Progression–Further Study	2.5%	5%	7.5%	10%	12.5%
Academic Progression– Further Study (In Universities within top 500 ranks of QS)	450-500	400-450	350-400	300-350	250-300

## 2. Research Excellence

- Faculty members are encouraged by suitable incentive to send research proposal to various funding agencies for financial support.
- Encouraging students to participate in national and international conferences to present and publish papers.
- Innovative ideas of students are encouraged to be translated into commercial products for the benefit of society by funding the student’s projects through funding agencies.
- Encouraging UG students to participate national level HACKTHONS.
- We propose that at PG level, a paper publication in reputed journal/conference is made compulsory and UG students are also encouraged for publication on the basis of findings from their
- Project/Thesis.
- Promoting consultancy services in each department.
- Encouraging the students to organize workshops/seminars/HACKTHONS on latest trends of technology.
- Revenue generation by sending proposals to different funding agencies such as MHRD, AICTE, DST, and other funding agencies
- Getting minor research grants from industry
- Internal revenue generation through consultancy

<b>Outcomes for Research Excellence</b>					
<b>Particulars</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
<b>KPI 1:ResearchCapacity/ Centers of Excellence</b>					
No of Centre of Excellence	6	12	18	32	64
<b>KPI 2:Availability of Researcher Pool</b>					
Number of faculty with PhD	35%	40%	50%	60%	70%

Number of Full times PhDs	14	28	56	112	224
Number of industry persons pursuing PhD	5	10	15	20	60
<b>KPI 3: Research Output</b>					
Average publications per faculty per year	2	2	3	3	4
Average Citations per publication	20	30	45	60	80
Average impact factor	2	2	3	3	4
Patents filed per year	100	150	200	250	300
Granted cumulative	5	10	15	20	50
Revenue from industry projects/grants(INR Crore)	5	10	15	20	50
Consultancy revenue (INR Crore)	2	4	8	16	32
No. of start-ups incubated	3	6	9	12	24
<b>KPI 4: Research Collaborations</b>					
% of research publications through International Collaborations in Q1 and Q2 journals	10	20	30	40	50
% of faculty as adjunct faculty in foreign university	1	2	3	4	8
<b>KPI 5: Community outreach camps to identify research areas</b>	AI in SDG	VLSI in SDG	Embedded in SDG	Quantum in SDG	Renewable Energy in SDG

### 3. CAPACITY BUILDING–FACULTY AND STUDENTS

- Inculcating lifelong learning skills by introducing self-learning components in the form of seminars, MOOCs, NPTEL training programs
- Establishing Digital Library in the campus for the benefit of all the students to refer national and international journals and other E-learning resources.
- Incorporating project based learning
- Training programs for skill enhancement and skill based valued added courses in curriculum
- Industrial Internship
- To develop ethical and ecological values in the students
- Establishing MOUs with industries
- Training students through Industry supported applied labs

<b>Outcomes for Faculty Excellence- Targets</b>					
<b>Particulars</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
<b>KPI 1:Faculty Capacity Building</b>					
Total Number of Faculty	180	200	220	240	250
Faculty Student Ratio	1:20	1:19	1:18	1:17	1:15
% Faculty with PhD/equivalent	40%	50%	60%	70%	80%
Cadre Mix (Professor: Associate Professor: Assistant Professor)	1:2:6	1:2:6	1:2:6	1:2:6	2:3:4
<b>KPI 2:IndustryFaculty</b>					
Faculty from industry	11	22	33	44	55
<b>KPI 3:Upskilling of faculty</b>					
Certified Professional Courses enrolled by faculty	40%	50%	60%	70%	80%
<b>KPI 4:Faculty Industry Immersion Program</b>					
Percentage of faculty to be made beneficiaries of the program	5%	10%	15%	20%	25%

<b>KPI 5:Faculty Experts on Digital Courseware</b>					
Number of MOOC courses offered	1	2	4	8	16
<b>KPI 6:Student Enrolment</b>					
Total Enrolment	960	1080	1200	1500	2000
<b>KPI 7:Student Diversity</b>					
% International students	-	1%	2%	3%	4%
% of Female Student Admission	30%	35%	40%	45%	50%
<b>KPI 8:Need-blind Admission</b>					
%of scholarships provided	-	1%	2%	3%	4%

#### **4. GLOBAL VISIBILITY AND COLLABORATION**

- To be a Student centric institute, where academics is followed with utmost passion and sincerity.
- Improve overall student and Faculty satisfaction for word of mouth
- Evolve mechanisms to attract high quality students from local, national and international.
- Ensure quality assurance through annual quality assessment
- Attain higher levels of achievements in co-curricular and extra – curricular activities
- Inspire social commitment of Faculty, staff and students through outreach activities
- Enhance the role of stakeholders in decision making
- Establish structured feedback system from stakeholders for curriculum enrichment activities
- Monitor the effective implementation of the strategic plan
- Having more MOUs with various industries for student internship and placements.
- Introduce industry need based curriculum.
- Involve experts from various industries and academicians from reputed institutions in preparing curriculum / BOS.
- Contributions from alumni and other sources
- Encouraging alumni in the involvement of overall development of the Institute

<b>Outcomes for Global Visibility-Targets</b>					
<b>Particulars</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
<b>KPI 1:General Collaboration</b>					
International Students	-		10	20	30
<b>KPI 2:Collaborations with Academia</b>					
No. of collaborations (with global top 200 institutes/universities)	10	20	30	40	50
% students outbound through semester exchange	2%	4%	8%	16%	32%
<b>KPI 3:CollaborationswithIndustry</b>					
Faculty Industry Immersion Programme per year	5%	10%	15%	20%	25%
Industry Distinguished Lecture Series	5	10	15	20	25
Industry Supported Programmes	2	4	8	16	32
Industry Supported Special Labs	20	25	30	35	40
%of faculty sourced from industry (adjunct Faculty mode)	1%	2%	3%	4%	5%
<b>KPI 4:Collaborations with Alumni</b>					
Placement through Alumni Network	5%	10%	15%	20%	25%
Number of International Alumni Chapters	5	10	15	20	25
Joint courses offered with alumni support	1%	2%	3%	4%	5%
Funds from alumni in Lakhs	5	10	15	20	25
Number of Alumni recognition awards	2	4	6	8	10
Active participation in Government of India initiatives	50%	60%	70%	80%	90%
Green Initiatives	50%	60%	70%	80%	90%
Active participation NGO activities	50%	60%	70%	80%	80%

Alumni sponsored chair	5	10	15	20	25
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## 5. INNOVATION, INCUBATION AND ENTREPRENEURSHIP

- Establishment of an Entrepreneur Development Cell which will act as focal point for its interaction with society and industry to satisfy the needs of the students

<b>Outcome for Innovation, Incubation and Entrepreneurship-Targets</b>					
<b>Particulars</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>
Patents Filed	100	150	200	250	300
Patents Granted	5	10	15	20	25
Patent commercialized and Revenue generated through IP and tech transfers in Lakhs	2	4	6	8	10
No of Prototypes Developed	5	10	15	20	25
No. of Startups incubated (Alumni, Student & Faculty)	2	4	6	8	10
% of student entrepreneurs	1%	2%	3%	4%	5%
Revenue through equity sharing with StartUp incubated	1%	2%	3%	4%	5%
Venture Capital for Start-ups incubated	1%	2%	3%	4%	5%
Number of International Angel Investors	1%	2%	3%	4%	5%

## 6. SUSTAINABILITY

- Plantation and development of garden
- Rain water and waste water harvesting for water conservation.
- Selecting project topics based on societal and industrial needs like rain water harvesting, smart irrigation system, automobile, drone-modelling
- Conversion of waste biomass into manure using vermi-culture is under consideration.
- In near future power generation by renewable energy source such as solar will be effective in entire academic blocks
- Waste water treatment is adopted in hostels for re-use in gardening etc.
- Development of utility facilities
- Encouraging faculty and students to maintain green campus
- Observing every 15th day of the calendar month as cleanliness day
- Immoveable dust bins are kept to collect garbage daily
- On 2<sup>nd</sup> October the Jayanti of Mahatma Gandhi observed as social service day in the campus

Outcome for Sustainability- Targets					
Particulars	2024	2025	2026	2027	2028
Adopting village schools	5	10	15	20	25
Strengthening existing schools	5	10	15	20	25
Constructing green energy initiatives like solar power, biogas plants and rainwater harvesting in villages	solar power & rainwater harvesting	solar power & rainwater harvesting	biogas plants	biogas plants	solar power, biogas plants and rainwater harvesting
Percentage of student projects with one of the outcomes related to SDG	50%	60%	70%	80%	90%

## Looking Ahead

The developed strategic planning document will act as a guide from management all the way down to the staff level and as a monitoring tool for self-evaluation at different levels. Periodic reviews are required in order to evaluate the degree of accomplishment in relation to the plan and implement any necessary corrective measures. It is hoped that the objectives outlined in this report can be accomplished with perseverance, participation, oversight, and assistance.



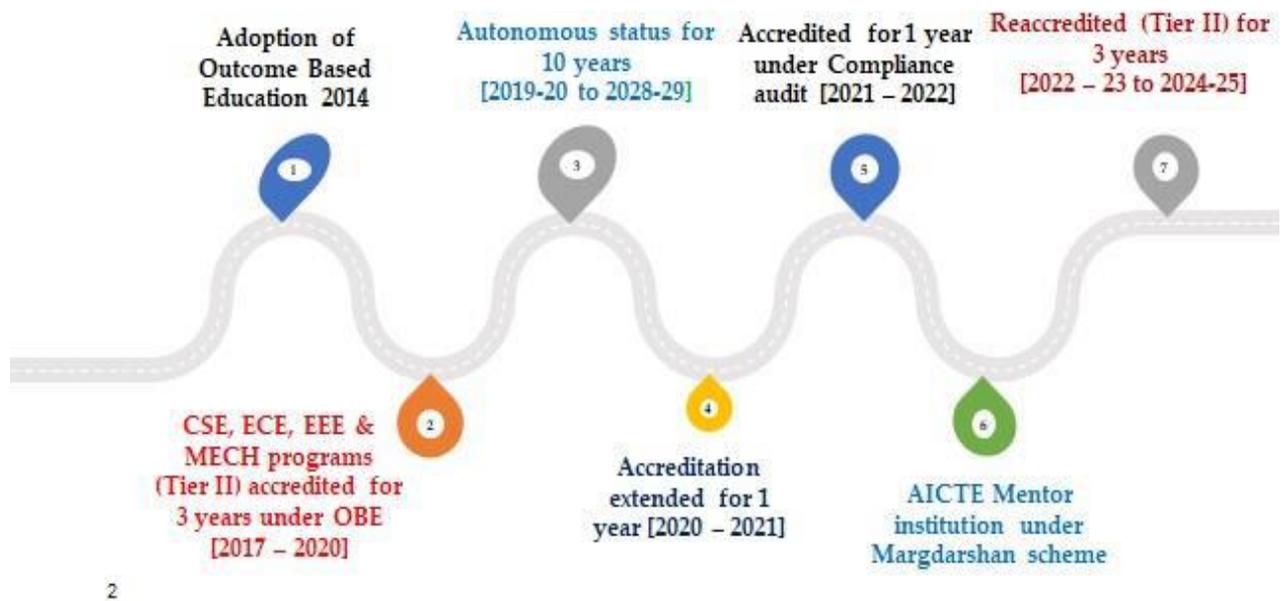
# **ANNEXURE I**

# Development Progress

## 2024

### 1. Academic Excellence

The Institution's academic excellence is evident in accomplishment of accreditation by National Board of Accreditation for four Under Graduate programs – Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering and Mechanical Engineering under Outcome Based Education since 2017.



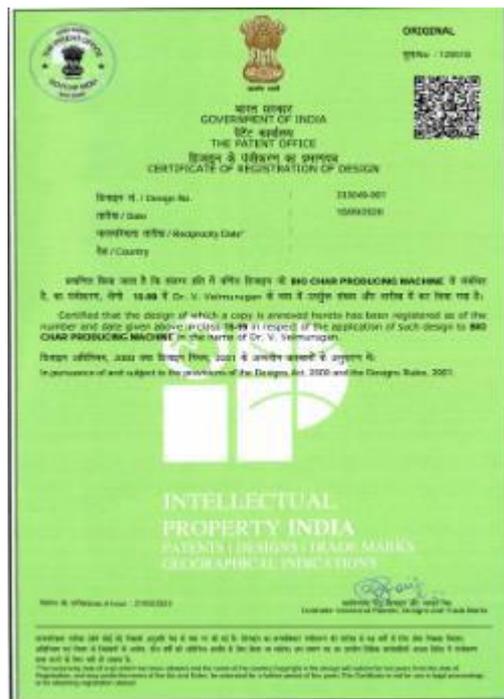
- ❖ 11<sup>th</sup> top Engineering college as rated by Competition Success Review.
- ❖ Our Post Graduate program Master of Business Administration was ranked 136<sup>th</sup> by Fortune – India.
- ❖ The institution was ranked 147<sup>th</sup> among all private Engineering colleges across the Nation by Indian Institute Ranking Forum [IIRF].
- ❖ The institute's MBA program was ranked 208<sup>th</sup> by India Today.

- ❖ The management was awarded with Education change maker award by the State government for its exemplary service in the field of education.



## 2. Research Excellence

- ❖ The Head of the Institution Dr. V. Velmurugan – Mechanical Engineering was granted with utility patent from Indian Patent Office.



- ❖ The Head of the Institution Dr. V. Velmurugan – Mechanical Engineering completed his DST supported funded project to a tune of 1 crore.
- ❖ Around 49 patents were published by the faculties of our institution.
- ❖ The institution bagged Rs. 10,000 each for five of its technical projects to a tune of Rs.50,000 under the State government's Naan Mudhalvan scheme.

### 3. Capacity Building–Faculty and Students

- ❖ The competency of both Faculty and students were enriched through online certification course under NPTEL and received NPTEL discipline award, top % achiever award.
- ❖ The students of FXEC won international competition like Aakruti held in New Delhi.



### 4. Global Visibility and Collaboration

- ❖ The students and faculties of our institution visited MAHSA University, Malaysia under Student Mobility Program - a part of International collaboration with Foreign Universities.



## 5. Innovation, Incubation and Entrepreneurship

- ❖ The students of Artificial Intelligence and Data Science department participated in IEEE organized International Innovation challenge held in Tunisia and won Honorable Mention Award.



## 6. Sustainability

- ❖ The students of our institution won Innovation Voucher Program for a tune of Rs. 5.87 lakhs for their sustainable product development.



# **ANNEXURE II**

# Development Progress

## 2025

### 1. Academic Excellence

The institute was recognized for its consistent performance in the pursuit of academic by active participation of NPTEL Online certification courses during the year 2024.



## 2. Research Excellence

- ❖ The teaching fraternity [around 79 faculties] were recognized for their contribution in research by AD Scientific Index 2025. Among them the Head of the Institution Dr. V. Velmurugan was consistently in top 2% world renowned scientist for the fourth consecutive time and Dr. Y. Harold Robinson – Professor, Department of Computer Science and Engineering was in his 3<sup>rd</sup> consecutive period.



- ❖ Professor Dr. A. Ravi – the Head of Electrical and Electronics Engineering Department was granted with utility patent from Indian Patent Office.

## 3. Capacity Building–Faculty and Students

- ❖ The competency of faculty and students are enriched through various certification courses.



#### 4. Global Visibility and Collaboration

- ❖ The students and faculties of our institution visited MAHSA University, Malaysia for the second time under Student Mobility Program - a part of International collaboration with Foreign Universities.



#### 5. Innovation, Incubation and Entrepreneurship

- ❖ The institution has MSME supported Incubation centre and received a grant for a tune or Rs. 42.7 lakhs for its various innovative ideas.

**SEED GRANT**  
to the tune of **₹ 42.74 Lak**  
from the  
**Ministry of MSME**



## 6. Sustainability

- ❖ The students of our institution develop various eco – friendly products for sustainable development of our nation.



**Solar powered vehicle**



**Electric vehicle**