

PANIMALAR ENGINEERING COLLEGE

Chennai, Tamil Nadu - 600123



INSTITUTIONAL DEVELOPMENT PLAN

2020-2025

SCOPE OF THE INSTITUTIONAL DEVELOPMENT PLAN

1. Name and Address : Panimalar Engineering College,
Bangalore Trunk Road, Varadharajapuram,
Poonamallee, Chennai- 600 123,
Tamil Nadu, India
2. Title : Institutional Development Plan (2020-2025)
3. Scope : Planned to achieve 5 years long term goals from 2020-2025
through Outcome Based Education in Engineering and
Management

INSTITUTION PROFILE

Panimalar Engineering College, a pioneer in professional education is run by the JAISAKTHI Educational Trust with a vision to impart high-quality technical education to aspiring youth. Established in 2000 in alignment with the Government of Tamil Nadu's policy to promote engineering education, the institution is affiliated with Anna University, Chennai, and approved by the All India Council for Technical Education (AICTE), New Delhi. The college has earned recognition from the UGC under sections 12(B) and 2(f). Located on a lush green campus along the Bangalore Trunk Road near Poonamallee, Chennai, the college is well-connected to Chennai, Kanchipuram, Thiruvallur, and the Chennai International Airport. Since 2006, two-third of its eligible programs have been accredited by the National Board of Accreditation (NBA). The institution has consistently featured in the 201-300 band of the NIRF rankings since 2020. The inception year 2000 marked the launch of departments in CSE, IT, and ECE, each with an intake of 60 students. The academic portfolio expanded in 2001-2002 to include undergraduate programs in EEE and MECH, along with postgraduate programs. Currently, the college offers 10 undergraduate programs and 3 postgraduate programs in Engineering and Management.

INSTITUTIONAL DEVELOPMENT PLAN PROCESS

IDP is a systematic process through which the institution's leadership defines its vision and mission, identifies long-term objectives, and formulates actionable strategies to achieve them. It serves as a roadmap to align all academic and administrative activities with the institution's future aspirations.

The institution has formulated a comprehensive Strategic Plan (2020–2025) to translate its Vision and Mission into measurable outcomes. This plan enables the college to effectively respond to both internal and external environmental factors, taking into account opportunities, challenges, and institutional strengths and weaknesses.

To develop the Strategic Plan, the institution constituted a Strategic Planning and Implementation Committee comprising representatives from the Governing Body, faculty, and administrative staff. The strategic planning process was executed through a series of three structured meetings held between September and October 2020.

- **First Meeting:** The committee deliberated on the concept, need, advantages, and scope of strategic planning. It was decided to prepare a Five-year strategic plan (2020–2025) with an annual review and amendment mechanism through the Action Plan. A preliminary framework outlining vision, mission, and institutional values was developed.
- **Second Meeting:** A comprehensive SWOC (Strengths, Weaknesses, Opportunities, and Challenges) analysis was conducted to assess the institutional ecosystem. Based on this analysis, eight thrust areas were identified, and thrust area managers with their respective teams were nominated. Each team formulated goal statements, strategic objectives, implementation methods, and year-wise action plans.
- **Third Meeting:** The draft Strategic Plan was consolidated, refined, and aligned with the institution's Vision and Mission. The final Strategic Plan document was approved by the Governing Body, signifying institutional commitment toward structured growth and quality assurance.

The Strategic Plan 2020–2025 now serves as a guiding document for all major institutional initiatives, including academic excellence, research promotion, infrastructure development, student success, and community engagement. Regular monitoring, review, and mid-term evaluations are conducted to ensure the plan's effectiveness and relevance in achieving the institution's Vision. Strategic Planning is a process in which an organization's leaders define their vision and mission for the future and identify their organizational goals and objectives. The process includes establishing the sequence in which those goals should be realized so that the organization can reach its stated objectives.

VISION AND MISSION OF THE INSTITUTION

Vision

To transform the budding engineers into academically excellent, highly intellectual and self-disciplined engineering graduates to mould them as good citizens with the spirit of integrity and morality that would cater to the needs of our nation.

Mission

- To impart quality education with high standards of excellence in engineering and technology.
- To provide an excellent infrastructure in a serene and conducive atmosphere that would motivate the students in their pursuit of knowledge in the field of engineering and technology.

SWOC ANALYSIS

INSTITUTIONAL STRENGTHS

- Discipline centered Institution
- Clean and Green Campus
- State of the Art's infrastructure
- Career Guidance and Soft Skills Training
- WIFI Campus
- Updated curriculum and Syllabi
- Stakeholders' involvement in BOS meetings to update syllabus with most recent trends
- Classrooms are equipped with ICT facilities
- Enormous auditorium, conference halls and seminar halls
- Spacious libraries to motivate self-learning
- Facilities provide to faculty and students to attend NPTEL and similar MOOC courses
- Usage of technology to monitor faculty and students' quality
- Frequent parents and teachers' meetings to ensure stakeholders satisfaction
- Co-curricular and Extra-curricular activities participation
- Guest lectures from industry people
- Collaboration with industry – consultancy and research projects
- Alumni as resource persons in industry institute interaction
- Consistent placement records
- Dedicated Entrepreneurship Development Cell

INSTITUTIONAL WEAKNESSES

- Limited research scholars
- Generating external funding (from Government and non-government bodies)

INSTITUTIONAL OPPORTUNITIES

- Availability of EDC (Support mechanism for growth of startups and incubation)
- Motivation by statutory bodies (AICTE, NBA & NAAC) promoting OBE
- Scope of development of infrastructure
- Alumni support
- Management Support for Hackathons
- Re-designing of curriculum to prepare engineers fit for industry
- Convenience of industry relevant projects and training to students
- Availability of a Research and Development contents to cultivate innovative ideas
- Signing of MoU with industry for Collaborative Research and Development

INSTITUTIONAL CHALLENGES

- Dynamic variation in Skill set of Engineering Graduates for Employment Opportunities

GOALS OF THE INSTITUTION (2020-2025)

WORLD CLASS EDUCATION AND TO BRING OUT THE INHERENT TALENTS

- Transform the budding engineers into academically excellent, highly intellectual and self-disciplined engineering graduates to mould them as good citizens with the spirit of integrity and morality that would cater to the needs of our nation.
- Advanced classroom setup for quality education
- Introduce new and advanced courses depending upon the demand.
- Increase the additional intake of the existing courses
- Adopt digital learning, e-learning solutions, and interactive sessions.
- Encourage self-learning techniques.
- Adopt blended learning to maximize student learning.
- Eligible UG & PG programs accreditation
- Faculty and students will be encouraged to compete for government and non-government awards to recognize excellence and innovation
- Increasing new Programs year on year based on the market demand.
- Conduct Seminars & Expert Lectures through professional bodies.
- The institution will pursue autonomous status accreditation to enhance academic flexibility and quality.
- Students and faculty will actively participate in international technical events, showcasing innovation and expertise
- The infrastructure of the institution will be significantly expanded and upgraded
- The institution will aim to secure a position in the NIRF Rankings within 150-200

STATE-OF-THE-ART FACILITIES AND RESOURCES AND TO ACHIEVE EXCELLENCE IN TEACHING -LEARNING PROCESS

- Creation of Digital Library. Ensuring the availability of e-resources to the students for research and academic purpose.
- Advanced learning platforms will be implemented to support flexible, technology-driven education.
- Centre of Excellence will be created to advance specialized research and industry-focused initiatives
- The institution will register an NCC Unit to promote discipline, leadership, and social responsibility among students
- A Research Park will be established to foster innovation, entrepreneurship, and collaborative research
- Upgrade the internet bandwidth for increased usage of e-resources including hostel requirements and ensures high speed networking facilities.
- Offer open elective to encourage interdisciplinary knowledge.

- Innovative clubs will be established and promoted to foster creativity, problem-solving, and student engagement
- Encourage multidisciplinary projects and electives
- Creation of Incubation Centre.
- Innovative Training Laboratories will be constructed to enhance practical learning and skill development. An IDEA Lab will be established to promote innovation and experiential learning and multi-disciplinary activities.
- Implement OBE, active learning, open ended experiments (Content Beyond Syllabus)
- Blended learning: E-learning, virtual labs, NPTEL courses
- Increase industrial visits and make it more accountable.
- State-of-the-art laboratories will be established to support advanced experiential learning and technology-driven education.
- The institution will conduct an increased number of IIC (Institution Innovation Council) activities to foster entrepreneurship and innovation among students
- More Innovative Student clubs will be established and promoted to encourage creativity, problem-solving, and student engagement in cutting-edge projects.

COMPETENT FACULTY AND TO UPGRADE THEIR KNOWLEDGE AND SKILLS

- Encourage faculty to complete Ph.D.
- Recruitment of faculty with Ph.D.
- Partnership with Foreign universities/Institution for faculty exchange programs.
- Conduct international conferences/symposia and pre conference workshops to upgrade knowledge.
- The number of SCI publications will be increased to 250 per year to enhance research output and global visibility.
- Intellectual Property Rights (IPR) related event(s) will be conducted annually to promote awareness on patent filing. The annual patent count will be increased to 50 per year to promote innovation, strengthen the research ecosystem, and enhance intellectual property creation.
- Motivating faculty members to publish research papers in SCI journals through.
- R&D incentives will be provided for faculty and students to encourage innovation and research excellence
- Encourage faculty members to get project funding.
- Advanced research laboratories will be established to facilitate cutting-edge research and experimentation
- Ph.D. programs will be initiated in the departments of Electronics and Communication Engineering (ECE), Artificial Intelligence and Data Science (AIDS), and Mechanical Engineering

CENTERS OF EXCELLENCE IN RESEARCH, INDUSTRY COLLABORATIONS, CONSULTANCY, TRAINING AND TESTING SERVICES

- Modernize Research and Development laboratory with latest equipment
- Annual publications will be increased to 200 per year to enhance research visibility and scholarly output.
- Skill-based curricula will be introduced to align academic programs with industry requirements and emerging technologies
- Research collaborations will be established with top foreign universities to promote international academic partnerships and high-quality research.
- Foreign language programs, including Japanese, will be introduced to broaden global communication skills and opportunities.
- NBA accreditation will be pursued for all eligible departments to ensure high-quality technical education
- Certification courses will be introduced to provide students with additional professional qualifications and expertise.
- Placement training programs in collaboration with Leading industries will be conducted to enhance students' employability and technical skills.
- The institution will strengthen institute-industry collaborations to enhance research, training, and placement opportunities and Encouraging Industry sponsored R&D projects.
- A new curriculum will be introduced to align academic programs with emerging technologies and industry requirements.
- The institution will aim to achieve 100% placement for eligible students through enhanced training and industry engagement
- Inviting reputed companies to set up an office within the campus to create industry atmosphere
- Collaborations with leading industry bodies, including NASSCOM and MeitY, will be established to strengthen industry-academia partnerships.
- International and national-level hackathon events will be organized to encourage innovation and problem-solving skills among students.
- Concentrating on external funded research projects with international collaborations.
- Developing Consultancy projects.
- A comprehensive research promotion plan will be implemented to encourage faculty and student research activities.
- Enhancing the number of MOUs with Industry and revisiting the existing MOUs based on its merits.
- Regular training through T&P to the students to fulfill industry expectations
- Research activities will be further enhanced to promote scholarly output and interdisciplinary collaboration

CONTINUING EDUCATION AND BENEFICIAL TO THE SOCIETY

- Conduct Business Plan and Idea Competition
- Encourage more start-up opportunities among students
- Creation of incubation centre
- Support the best projects with venture capital
- Academia & industry holistic learning experiences.
- More social activities to connect with the neighborhood Community through departments and committees of the college
- Adopt best practices beneficial to the society

STRATEGIC PLANNING -THRUST AREAS AND SUB THRUST AREAS

Sl. No	Thrust Areas	Sub Thrust Areas
1.	Research and Development	Journal Paper Publications
		R&D Projects
		Ph.D. Programmes
2.	Improving Teaching & Learning Process	Create ICT enabled culture
		Classrooms are to be provided with WiFi connections
		Encourage faculty members to complete FDP/NPTEL courses
3.	Students' Developments	Conduction of Personality Development Classes
		Entrepreneurship Training programs are conducted.
		Interaction of students with alumni
4.	Continuous Improvement	Conduct of Annual Academic and Administrative Audits every year by all the departments
		External Experts are invited to analyze the reports of Continuous Improvement, suggestions are obtained to improve further
5.	Good Governance	Decentralized working Environment
		Implementing a Transparent Governance System
		Regular IQAC Meetings to be conducted
		Regular meetings with Faculty members / HoDs / Deans / Directors
		Incentive for all faculty members - monthly

6.	Developing Sustainable, Green and Clean Campus	Necessary Infrastructure Development
		Enabling a Sustainable and Green Campus
7.	Improving Industry Institute Interaction	Selecting Project topics based on societal and Industrial needs
		To sign up more MOUs with various industries for students' internship and placements
		Enabling Entrepreneurship Development Cell's association with all departments
8.	Enhancing Alumni Network	Implementing a separate Alumni Interaction Cell
		Conduct regular Alumni meetings at department level
		Obtain suggestions from Alumni in updating the curriculum in BoS Meetings
		Encourage Alumni in the involvement of overall development of the Institute

STRATEGIC PLAN - IMPLEMENTATION AND MONITORING

Criteria	Sub Criteria	Responsible members & Action taken	Monitoring and Authority	Assessment Period
Vision, Mission and Program Educational Objectives	Preparation of Vision and Mission of the Department and Institute and PEOs	Faculty members, Principal, Management, Governing Body, Parents, Students, Employers/industry, Alumni, Expert, Society, and other stakeholders	Check the consistency and relevance of the vision mission and PEO	Once in a year by HOD and Principal
Program Curriculum and Teaching-Learning Processes	Program Curriculum Planning and Implementation	Faculty members, Principal, BOS Chairman, Academic	Curriculum and Syllabus Approved by BOS members, Academic Council members and	Once in a semester by HOD and Principal

Criteria	Sub Criteria	Responsible members & Action taken	Monitoring and Authority	Assessment Period
		Council	Anna University	
	<ul style="list-style-type: none"> • Teaching-Learning Processes- • Academic Calendar • Timetable • Course Plan and Effective Delivery • Continuous Assessment Test, • Activity • Seminars 	Faculty members, Principal	HOD	Once in a semester
	<ul style="list-style-type: none"> • Project • Laboratory • Industrial visit • Internship • One Credit course • Self-Study course • Course material • Remedial Classes 			
Program Outcomes and Course Outcomes	<ul style="list-style-type: none"> • Establish the correlation between the courses and the POs & PSOs • Attainment of Course Outcomes 	Faculty members	HOD	Once in a year
Students' Performance	<ul style="list-style-type: none"> • Success rate • Students Participation • Students diversity 	Faculty members	HOD	Once in a year

Criteria	Sub Criteria	Responsible members & Action taken	Monitoring and Authority	Assessment Period
Faculty Information and Contributions	<ul style="list-style-type: none"> • Faculty Retention • Faculty Experience • Innovations by the faculty in Teaching learning • FDP • STTP • Faculty Performance appraisal and Development system • NPTEL Swayam & MOOC 	HOD and Principal	HOD, Principal	Once in a year
Facilities and Technical Support	e-learning <ul style="list-style-type: none"> • Safety & Security management • Medical facility • Developing sports (indoor/outdoor) facilities • Hostel maintenance 	Lab Coordinator, HOD, Principal, Top Management	Principal	Once in a Year

Continuous Improvement	<ul style="list-style-type: none"> • Actions taken based on the results of evaluation of each of the POs and PSOs. • Academic Audit and actions taken • Higher Studies • Improvement in the quality of students admitted to the program • Guidance for • Competitive Exams 	Faculty members, HOD	HOD	Once in a semester / year
Research and Development	<ul style="list-style-type: none"> • Publications- Papers & Books • IPR, • Consultancy • Book Chapters, Research Proposals for funding 	Faculty members and, HOD	R&D Coordinator	Once in a Year
Student Support Systems	<ul style="list-style-type: none"> • Mentoring system- Personal Counseling by Psychiatrist, Peer Mentoring, Faculty mentoring • Feedback analysis from Stakeholders • Feedback on facilities • Self-Learning • Career Guidance • Co-curricular 	Mentors, Faculty members, HOD	IQAC	Once in a semester
Training and Placement	<ul style="list-style-type: none"> • Training Details • Company Details and Placement Data 	Head - T&P	IQAC	Once in a Year
	<ul style="list-style-type: none"> • MOU- Industry Collaboration • Industry need based curriculum 			

Entrepreneurship	<ul style="list-style-type: none"> • Entrepreneurship Cell • Details of Startups • Incubation Centre • Details of motivation classes for Students 	EDC Coordinator	IQAC	Once in a semester
Governance, Institutional Support, and Financial Resources	<ul style="list-style-type: none"> • Governing body, • Academic Council • Board of Studies • Service rules procedures • Recruitment and Promotional policies. • Decentralization in working • Grievance redressal mechanism • Delegation of financial powers 	HOD, Principal	IQAC , Top Management and Governing Body	Once in a semester /Year
Budget allocation and Utilization	<ul style="list-style-type: none"> • Framing & implementation of Purchase and Financial policies • Department wise Budget planning and allocation • Effective functioning of purchase committee • Plans for Emergency Fund • Budget formulation & approval through Finance Committee • Periodic Audit 	HOD, Principal, Management	Chartered Accountant	Once in a Year

Library	<ul style="list-style-type: none"> No. of Books available Magazine, Journals, Digital Library e-journals Software purchased, 	Librarian	IQAC	Once in a Semester
IT facilities	<ul style="list-style-type: none"> Information 	System	IQAC	Once in a

	Communication Tools <ul style="list-style-type: none"> Internet facilities CMS 	Administrator		Year
Quality Initiatives	<ul style="list-style-type: none"> Quality Initiative by IQAC- NBA, AISHE, NIRF, ISO 	Deans and HODs	IQAC	Once in a Year
Sports, Yoga	<ul style="list-style-type: none"> Sports facilities Students Participation, Winners Details Details of Yoga trainer and Certificates 	PED & Yoga Trainer	IQAC	Once in a Semester
Students Scholarship	<ul style="list-style-type: none"> Management Scholarship Government Scholarship, 	Accountant	IQAC	Once in a Year
Staff Welfare	<ul style="list-style-type: none"> Cash award for R&D Activities Incentives, Insurance scheme Provident Fund, Registration fees for Programme Personal Loan ESI and Leave facilities. 	R&D Head	IQAC	Once in a Year

Alumni Engagement	<ul style="list-style-type: none"> • Formation of Alumni association, participation and registration • Database creation, Regular interactions with alumni and networking • Recognition of successful alumni • Leverage for guest lecturers • Alumni Meet • Alumni suggestions for curriculum development 	Alumni Coordinator, HOD & Principal		Once in a Year
Social Responsibilities	<ul style="list-style-type: none"> • Gender Equity • Environmental consciousness • Sustainable or alternate energy • Differently-abled friendliness • Local Community Advantages • Professional Ethics • Green campus • Best Practice Initiatives • Rain/Waste Harvesting • Waste water treatment • Biomass plant • Solar cum wind mill 	Faculty Members, HOD, Estate Maintenance Officer	IQAC & Principal	Once in a Year

“This IDP is approved by Planning & Monitoring Committee”