



J·N·N
INSTITUTE OF
ENGINEERING

(Approved by AICTE, New Delhi and Affiliated with Anna University, Chennai.)

Managed by Alamelu Ammaal Educational Trust.

90, Ushaa Garden, Kannigaipair, Chennai Periyapalayam Highway,
Thiruvallur District, Tamil Nadu 601102



2019-2025

Chairman Message

Education is an exploration into the unknown avenues of intellectual, cultural, artistic and even spiritual talents of the students. All we endeavour to do in J.N.N Institute of Engineering is to challenge all odds in the world We prepare our students to be good humans; inculcate values: in tune to our finer senses, to empower mind and soul in achieving its full potential and to broaden the horizon. You will really enjoy the opportunity to achieve your goal while developing a desire for lifelong learning here.

We are committed in opening up high quality tertiary education to students and to provide opportunity to acquire, understand and apply disciplinary and interdisciplinary knowledge as well as related skills and attitudes, to think rationally and to enhance their personal development. Situated in the capital city of Tamil Nadu, our college bridges the education and values in its relationship with business, government, research organisations and universities. I would like to reaffirm my sincere personal commitment to help each of you to succeed in your academic endeavours.

I would like to reaffirm our sincere personal commitment to help each of you to succeed in your academic endeavours. I heartily welcome our students and wish them the very best for a successful and glorious future.

Shri. S. Jayachandran B.Sc., B.L

Founder & Chairman, J.N.N Group of Institutions

Former Chairman, Pachaiyappa's Trust Board

Vice-Chairman Message

Our motto, "Learning Today. Leading Tomorrow", permeates every aspect and activity at J.N.N. Over the past 12 years, J.N.N Institute of Engineering has successfully imbibed several of the proven best practices from the best of engineering institutions around the world, adapted them to make them better suited to the ground realities and introduced many of its own innovations in engineering education. Together, these have ensured that an educational experience at J.N.N Institute of Engineering is truly transformational for thousands of aspiring young engineers.

J.N.N Institute of Engineering has been very proactive in recognising the global and national trends in shifts in the technical landscape and has been pioneering several innovations in technical education. J.N.N is also embracing the latest technologies, teaching methodologies, well equipped facilities and understands the aspirations of the student community.

I invite you to experience J.N.N first hand by engaging with us as a learner in one of our UG programs or an M.B.A degree if you seek to learn. We are more than happy to have you in our campus.

Mr. Naveen Jayachandran

Vice-Chairman, J.N.N Group of Institutions

Principal Message

J.N.N Institute of Engineering is dedicated to providing students with a high-quality, industry-oriented engineering education that will prepare them for careers in industry, academia, and other R&D organisations. We also intend to develop entrepreneurial skills in our students through the entrepreneur cell, so that they can create job opportunities for people with different qualifications.

We are dedicated to developing young people's minds and preparing them for challenges in today's technologically innovative world. Workshops, conferences, effective communication through speaking and writing, and intercollegiate competitions in cultural, technical, and sports are all held on a regular basis to develop leadership qualities among students.

Dr. Abdul Kalam famously said, "A dream is not something you see while sleeping; it is something that keeps you awake." You should always dream big in order to reach new heights in your profession. You must be completely dedicated to your mission in order to succeed. Always be sincere, devoted, and dedicated wherever you serve. Your dignity must be preserved.

Dr.G Gunasekaran, Ph.D.,
Principal
J.N.N Institute of Engineering

Acknowledgements

We place on record our deep appreciations and thanks to the Management, Governing Body members, Alumni, Parents, HODs, Faculty, Staff and students for their valuable inputs and active participation towards formulating the “Strategic Development Plan”.

We profusely thank Prof. Dr. BASKAR K, (former Vice-Chancellor of Manonmaniam Sundaranar University, Tirunelveli), THE DIRECTOR - CTDI AND COORDINATOR – TEC - ANNA UNIVERSITY, Chennai and Mr. VASU M, Advisor for their valuable guidance and relentless persuasion towards developing “Strategic Development Plan”.

Principal

Preface

An Engineering institution like any other organisation requires high level goals with long range planning and strategies to accomplish the Vision and Mission, which it dreams of. Strategic planning is a continuous process with a specific focus on accomplishing short, mid and long term goals in this highly competitive world. Strategic Development Plan (SDP) analyses current environment expected future scenarios and envisages the direction towards which the institution should move to achieve its set goals and objectives.

The first part of SDP addresses vision, mission and working on bringing out a good quality policy along with core values. These are achieved through many deliberations with all the stake holders (management, leadership, HODs, faculty, staff, industry, students and parents).

Scientific scanning of internal and external environment is done through SWOC analysis. After scanning the environment, institutional goals were set up and strategies to achieve them are arrived at for the institution.

Based on Institutional Vision & Mission, the goals are drawn by holding brainstorming sessions with Deans, HODs and Professors. Institutional strategic goals and strategies are formed with action plans. The process of implementation is worked out and circulated to all the departments. Financial constraints and fund availability is one of important parameters of SDP. Internal Revenue Generation has been given due importance. SDP evaluation and committees to monitor the effectiveness has been clearly spelt out. The final out comes are discussed and approved by the Governors Body (GB). As a good practice, inputs are drawn from stake holders through active participation and collective inputs. The SDP will stream line the processes and progress of the institution, it will also ensure that JNNIE becomes a torch bearer among technical education institutions at India level by 2025.

Strategic Development Process

The Chairman, Secretary and the members of the Governing Body have felt the need of preparing a strategic development plan for the institution in a formal written document format. The mandate was given to the Principal to develop strategic plan 2019-2025 for the institution. The institution leadership team was facilitated with a one-day workshop on 'strategic development leadership for excellence'. The management & top leadership team met and brain stormed on SWOC and stake holder's expectations. The Leadership team met a number of times, deliberated in detail and arrived at vision, mission, quality policy and core values for JNNIE. Environment scanning was done keeping vision in mind. The team also discussed about Institutes strategic High Level Goals (USG/HLG) to be achieved by 2025.

Institution strategic goals formed the main theme for arriving at strategies, sub strategies and road to accomplish them. Each Strategy was deliberated and sub-strategies were arrived towards implementation plan. Implementation plan worked out all details such as budget, resources needed and leaders responsible to implement with time lines. This implementation is separately maintained by the head of the institution. Departments play a pivotal for the institution; hence each department worked out on their vision, mission and short, mid & long term goals. The implementation plan for the departments also reflected all details such as budget, resources needed as well as leader responsible with time lines. HODs form the core team for implementing departmental goals under the guidance of Principal.

Strategic Development Plan emphasises on evaluation measures, monitoring team along with deviation steps if any over a period of time. The evaluative components for each stake holder are clearly spelt out along with periodicity of performance evaluation reviews. The final draft document was discussed with BOG and after its detailed review, the suggestions were incorporated towards its effective implementation. This comprehensive plan forms the guiding plan for the years 2019-2025.

Vision Statement

Lead the transformation of engineering and management learning experience to educate the next generation of innovators and entrepreneurs who want to make the world a better place.

Mission Statement

- To develop the required resources and infrastructure and to establish a conducive ambience for the teaching-learning process.
- To nurture professional and ethical values in the students and to instil in them a spirit of innovation and entrepreneurship.
- To encourage a desire for higher learning and research in the students and to equip them to face global challenges.
- To provide opportunities for students to learn job-relevant skills to make them industry ready.
- To interact with industries and other organisations to facilitate transfer of knowledge and know-how.

Our Core Values

We, the J.N.N Institute of Engineering community, are committed to:

- **Excellence in Education** – Offer a rigorous, high quality education to all students
- **Student Success** – Place learner needs at the center of our academic and service planning, policies, and programs
- **Education Access** – Provide all qualified students with access to higher education
- **Diversity** – Achieve multicultural understanding as a priority of educational and civic life
- **Integrity** – Operate with fairness, honesty, and the highest ethical standards to sustain a community of trust
- **Civility** – Support a civil, engaging, and respectful campus climate
- **Environmental Sustainability** – Model environmentally responsible and sustainable operations and education

Quality Policy

At J.N.N Institute of Engineering, we strive to achieve satisfaction of all stakeholders by providing quality education and training in Engineering, Technology and Management in a congenial and disciplined environment by continuously benchmarking the institution against global best practices for quality improvement.

Diversity & Inclusion at J.N.N

Throughout your life, you'll interact with people from different cultures. Your success will depend on your experience with and understanding of cross-cultural issues, here and abroad.

At J.N.N you'll live and study with more than 1,800 students from various walks of life. The variety of backgrounds and perspectives represented in the J.N.N community enriches the learning experience for all. As you interact on team-based projects, in hostels, and in day-to-day activities, we believe you will be enriched and better prepared for the opportunities and challenges of global interdependence.

Overview

At J.N.N, ideas become solutions. We unite bold thought with purposeful action and use the results to overcome society's grand challenges.

J.N.N is Different

J.N.N Institute of Engineering was founded to not only graduate engineering innovators who will be leaders in solving the pressing global challenges of today and tomorrow but also as a resource to other colleges and universities across the world seeking to broaden and rethink their educational approaches and learning environments. We are fully responsive to the local/regional needs and aware of our contribution not only to education but to the social and economic development of the region.

People Inspired

J.N.N Institute of Engineering is one of the first engineering colleges in the state to develop a series of progressive steps – knowing that the true goal of engineering is to make people's lives better. From improving the life of the elderly in a nearby village to building new technology in far away developing countries, our students connect their engineering education to the reality of making a difference in the world.

Real World Solutions

A fundamental part of J.N.N's philosophy is that learning is taken out of the realm of academic theory and put in the context of real-world applications. Students tackle actual engineering challenges in a manner very similar to the global teams assembled by today's leading companies. This hands-on approach enables them to learn the reality of what it's like to work within financial or other resource constraints, and how innovative thinking is required to solve real-world problems.

Innovation

Our innovative educational approach is aimed at changing how students learn engineering; if something doesn't work, students and faculty revise the model until it does. Students are encouraged to take risks, make mistakes, learn from those mistakes, persevere, and succeed in applying new concepts. J.N.N's extraordinary faculty share a devotion to continued experimentation in and improvement of engineering education.

Impact

J.N.N is a small college that is making a large difference—on both a local and national scale. We are attracting top faculty and students. Our student body is gender balanced and has one of the highest graduation rates in the state. Students are entering the country's top graduate schools, being offered generous scholarships, are actively pursued by employers, or starting their own businesses right out of college. Not only are we graduating innovators, but we are also focused on helping to transform engineering education.

Collaborations

J.N.N is committed to collaborating with others to make the changes necessary to attract, retain and graduate engineers with the right mind- and skill-set. J.N.N's Industry Institute Partnership Cell was founded to co-design educational transformation between the industry and institution. The effort is taking hold, and thousands are visiting J.N.N, attending workshops, seeking immersive experiences and intensely working to bring about innovation in their learning environments.

About Us

J.N.N Institute of Engineering has been at the forefront imparting high quality technical education in the state of Tamil Nadu. State of the art infrastructure in all branches of engineering, dedicated and qualified staff, highly conducive environment for teaching-learning process and a lush green campus are the hallmarks of this professionally managed institution. The Institute has consistently produced outstanding engineers who have excelled in their career and occupied responsible positions in some of the best-known enterprises in India.

The institution is promoted by the Alamelu Ammaal educational trust formed to cherish the memory of the Chairman's mother. It is located just 25 kms away from the city of Chennai and has running routes frequented by city buses. Students, staff members, the community and visitors alike enjoy the aesthetic view of the college with its green colour shades.

The institution has been a provider of university level education with the wider and dynamic network. It meets the demands not only to the university level education but also to the economic development of the region with wider opportunities. The location and the range of academic offerings at both UG and PG level has lifted the intake capacity regionally and nationally. The infrastructural development also portrays enrollment growth.

J.N.N strives to impart high patterns of discipline with futuristic techniques through dedicated staff members. It is a place for making the students technologically superior and ethically strong. The environmentally friendly place of opportunities enhances skills and personal development. J.N.N has also signed Memorandum of Understanding with top level industries and training providers to develop new skills and abilities.

The institution is approved by the All India Council for Technical Education (AICTE), New Delhi and is Affiliated to Anna University, Chennai.

Courses Offered:

Bachelor Programs in Engineering (B.E.)

- Civil Engineering
- Computer Science and Engineering
- Electrical and Electronics Engineering
- Electronics and Communication Engineering
- Mechanical Engineering

Post-Graduate Program

- Masters in Business Administration

SWOC Analysis

Institutional Strength

General Strengths:

- The Institution has an Experienced and dedicated Management with a broad vision for academic excellence.
- ISO 9001:2015 Certified Institution.
- Centres of Excellence in partnership with Industries to train and equip students on job-ready skills.
- MSME recognized Incubation Centres and ED Cell to encourage entrepreneurship among students.
- Training on latest technologies such as RPA and Cloud Computing through partnership with UiPath, AWS Academy etc.
- MOUs with reputed Industries and Research organizations.
- Next Big Idea Club and Technical Clubs to encourage creativity among the students.
- MHRD recognized Institution Innovation Council to foster a culture of innovation.
- Management Scholarships for deserving and meritorious students.
- Financial assistance to faculty for attending National/International conferences.
- Well established IQAC to monitor quality in teaching-learning and administrative processes.
- Effective training by the Department of Training & Placement.
- Wide range of extension activities by the NSS, YRC and Yi Yuva Chapters.

Excellent Infrastructural Facilities

- 30 ICT enabled and well-furnished classrooms.
- Well-equipped laboratories, Computer Centres, Workshops, Dining and Hostel facilities.
- Automated Central Library with OPAC with reference books, journals, magazines, and spacious reading area.
- Fully furnished Digital Library with access to e-resources such as DELNET, e-journals, e-books, NPTEL, Swayam, NLS etc.
- Spacious Auditorium with 750 seating capacity.
- Wi-Fi enabled campus with a 60 Mbps internet bandwidth.
- 55 kW Solar PV power plant, STP and Biogas plant and Solid Waste Management.
- CCTV surveillance to monitor safety on the campus.
- Spacious sports arenas, indoor games, and Gymnasium.
- Well-furnished hostel facility for Boys and Girls.
- RO facility for hygienic and safe drinking water.
- E-governance in campus management.

Faculty and Academics

- Student-Faculty Ratio is maintained with a healthy number of Ph.D holders.
- The Institution encourages faculty to pursue research by interacting with
- industry and undertaking
- MOU's.
- Student Mentoring System to address the needs of the students and for a
- friendly student-teacher relationship.
- Responsibilities are decentralized to aid in faster decision making by the
- Principal, HOD's and faculty members.
- Robust Feedback system to gather feedback from all stakeholders.
- Strong functioning of the Grievance Redressal Committee, Anti-Ragging Committee, Women Empowerment Cell to address the needs of the students.

Institutional Weakness

- Being an affiliated institution, we lack academic autonomy in designing curriculum, syllabus, examination, and evaluation process etc.
- The dearth of senior faculty with industry/research experience.
- Research & Development, Consultancy, and Industry - Institute Interaction needs to be strengthened
- further.
- The quality and number of patents need to be increased.
- Interdisciplinary collaborative research and journal publications need to be improved.
- Since most of the students are from rural areas, improving their communication skills is an arduous task.
- Relatively a smaller number of core and IT companies coming forward to recruit the aspiring and enthusiastic
- students.
- The difficulty is attracting students from northern states in India and other countries.
- Institutional Opportunity
- Demand for skilled technical workforce is growing at a rapid pace.
- Increase in student enrollment due to the addition of four new Industry 4.0 courses, namely, B. Tech Artificial Intelligence & Data Science, B.E Biomedical Engineering, B.E Robotics & Automation and B.E Agriculture Engineering.
- An improved research environment can be foreseen since a good number of faculty members are pursuing Ph.D.
- Getting accredited by NAAC and obtain NBA accreditation for all eligible programmes.
- Attaining Autonomous status by UGC and seek funds for cutting edge research in emerging areas of Engineering and Management.

- Better exploitation of Consultancy and funded R & D projects from Government and Private sector and generate revenue for the Institution.
- Encourage faculty and students to involve in patent filing through collaborative research projects with the Industry.
- To design curriculum, syllabus, and train students in line with the requirements and expectations of the Industry.
- To offer Certificate programmes and value-added courses in association with professional bodies & industry associations.
- To set up Industry-sponsored/supported laboratories to prepare industry-ready engineers.
- Investments in improving the state-of-the-art infrastructure available at J.N.N.I.E will lead the students to reach excellence.
- Possibility of collaboration with National & Foreign universities. Programs with international universities will provide a platform for international exposure to students and faculty members.
- To maintain a strong alumni base to strengthen Placements and Industry-Institute interaction/collaboration.

Institutional Challenge

- The rigidity of academic structure & curriculum since our Institution is affiliated with the state University.
- Training Tamil & Telugu medium students in the English language and developing their communication skills.
- Securing funds from Government bodies for Research & Development.
- Retention of qualified faculty and recruiting highly skilled and qualified faculty.
- Securing Placements from Tier-1 companies and ensuring all eligible students are placed.

Strategic Goals

Short Term Goals

- To make the institute as an autonomous institute.
- To get all programmes accredited by NBA.
- To introduce new need based programmes at U.G and P.G level.
- To establish R&D Centres in all departments.
- To establish technology business incubation centre.
- To encourage innovations and self-employment through Entrepreneurship Development Cell.
- To improve industry-institute interaction with the collaboration of at least three industries per department.
- To focus more on training and placements.
- To accelerate faculty development programmes.
- To strengthen counseling.
- To improve transparency level.
- To make feedback system more effective.
- To conduct training programmes for supporting technical staff.
- To provide more community services in adopted villages.
- To accelerate objective oriented NSS programmes in nearby slum areas.
- To constantly up-grade content to bridge gaps between learning outcomes and employability.
- To support weak students, focusing on ensuring equity among all categories of students.
- To offer value-addition courses beyond the curriculum during off hours for students and local community.

Long Term Goals

- To undertake national and international Research and Development works in all the disciplines and to emerge as centers of excellence.

- To encourage sponsored and collaborative research with industries, tailor-made training for working professionals, testing and calibration services etc.
- To ensure that all the faculty members possess Ph.D degrees.
- To enter into more number of MOUs with International and National organizations.
- To make this Institute as one of the best learning centres.

Strategy Implementation and Monitoring

Strategic development plan once approved by Governing Body the next immediate step is its implementation in true spirit. Strategy when being implemented, the progress shall be measured from time to time through the IQAC. SMART (specific, Measurable, Attainable, Realistic and Time bound) concept is made use of while arriving at implementation plans. All the measures of success are clearly spelt out in the implementation document and Head of the institution along with leadership team is the custodian for implementation and its success.

STRATEGIC PLAN EFFECTIVELY DEPLOYED IN OUR INSTITUTION

J.N.N Institute of Engineering has a strategic plan based on the Institution's Vision and Mission. The strategic plan encompasses improvements in the teaching-learning process, promotion of research and development, adherence to quality improvement measures, enhancement of infrastructure and facilities. The Management, Governing Council and Principal are committed to the rigorous implementation of the strategic plan. The Institute possesses knowledgeable faculty who work on the strategic plan and make it a reality.

The Strategic Plan of J.N.N Institute of Engineering for the 5-year period of 2018-2023 is as follows.

S.NO	YEAR	STRATEGIC PLAN
1.	2018-19	1. Establish Centres of Excellence 2. Establish the Research & Development Cell 3. Strengthen Industry – Institute Interaction
2.	2019-20	1. Establish Internal Quality Assurance Cell 2. Infrastructure Development
3.	2020-21	1. Obtain NAAC Accreditation 2. Obtain UGC 2(f) status
4.	2021-22	1. Obtain NBA accreditation for all eligible UG & PG programs 2. Obtain Permanent Affiliation status
5.	2022-23	1. Seek Autonomous status 2. Apply for grants from Government organizations

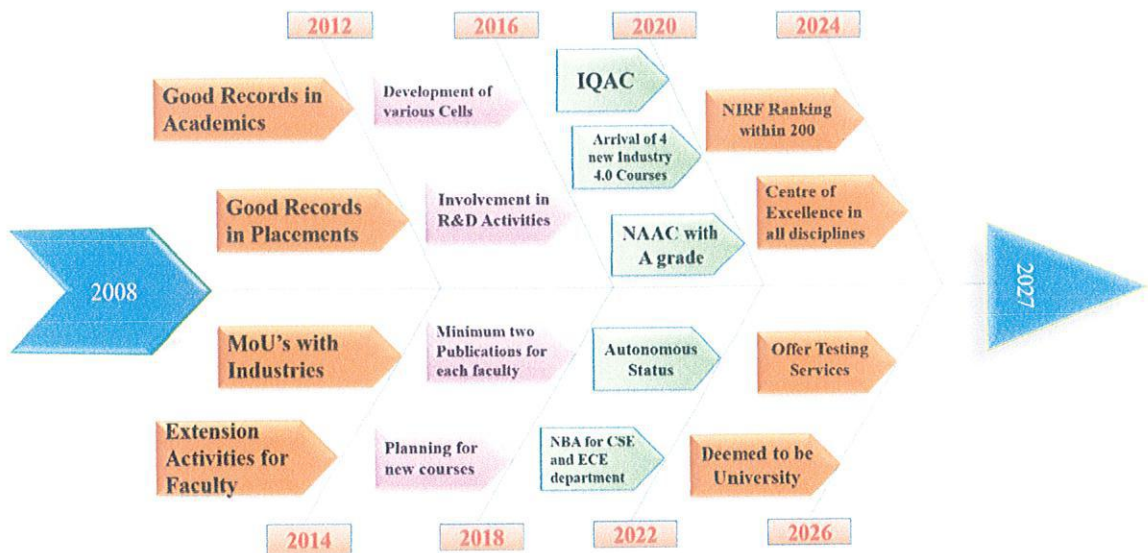


Fig 1: JNNIE Long Term Goal

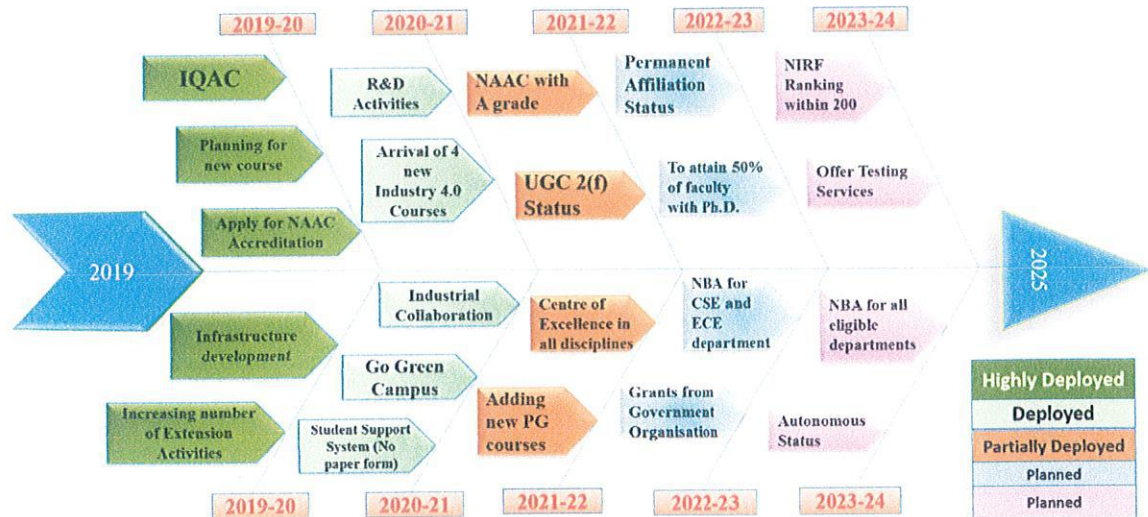


Fig 2: JNNIE Strategic Plan from 2019-25

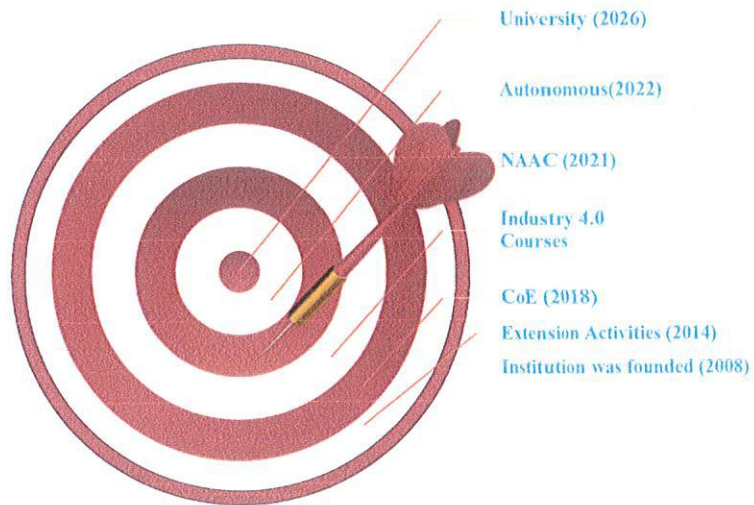


Fig 3: JNNIE 2026

IMPLEMENTATION PLAN AT INSTITUTION LEVEL

Good Governance & Administration	GB, Chairman, Members of GB
Finance Management	Finance Committee, Principal, Accounts Manager
Institution Statutory Compliance	Principal and Coordinators
Branding /Expansion	GB members, Leadership team & Public relations team
Talent Management	GB, Chairman and Principal
Infrastructure (physical)	GB, Chairman, Estate Manager & team
Infrastructure-Academics	Principal, HODs, Deans (Academics), Dean (Infrastructure)
Teaching- Learning	Principal, Dean (academics), HODs, Faculty and Staff
Research	Principal and All HOD's
Student affairs	All HOD's
Student admissions	Principal and Administrative Officer
Departmental activities	HODs and Faculty
Placement & Training	Placement & Training Officer and HoDS

Measurable during Implementation

Good Governance	GB selection, appointment, functioning, good governance initiatives, Management commitment, Vision-Mission reviews, Number of meetings conducted, decisions made, Committees appointment, performance , Polices implementation, grievance procedures, Educational ERP implementation....etc.
Talent Management	Recruitment, Selection of faculty, staff, salary, attrition rate, benefits as per AICTE norms, Track Faculty and staff performance.

Student Intake Quality	CET ranking, Students profile, PUC marks score
Student Academic Performance	Pass percentage, number of distinctions & first classes, Graduate attribute attainment levels and alumni feedback.
Placement	Number of offers made through placement department, average salaries offered, Companies visiting the campus, Number of graduates pursuing higher education, number of students becoming eligible for higher education through GRE/GATE/CAT/GMAT...etc, Public sector and other Government jobs, percentage of graduates becoming Entrepreneurs.
Alumni	Alumni data base, number of interactions, support for internships, placements, projects, scholarships, consultancy and contribution towards infrastructure development.
Research and Consultancy	Publications in national/international journals and conference proceedings, Patents filed, conferences & workshops organised, New MOUs signed with academic and industrial organizations, Centres of competence established.
Physical Infrastructure	Number of buildings, class rooms added, removal of obsolescence, equipment added, annual budget allocated & utilized.
Social Responsibility	Number of villages adopted, vocational trainings provided, social projects undertaken and skill development programs for marginal section of the society.
Extra Curricular Activities	Number of student participants, number of tournaments won, number of sports and Techno-cultural events organized, Regional, National & International recognitions received, competitions participated.

Sources of Funding	Students - Tuition Fees, Government reimbursements, Government grants, Industry Sponsorships, Funding raised through sponsored Projects, Consultancy /Testing Services, International grants, Alumni Contribution, Philanthropy- Donors, Trust Fund income
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The committee will be formed for review from time to time. The following leadership team will monitor the time to time implementation scheme against the measurable and do prepare detailed MIS for BOG review.

- Chairman, GB
- Principal, Deans/HODs
- Professors, Faculty & Staff
- Student representatives
- Industry representatives
- Parent nominees
- Accreditation /Inspection bodies.

Conclusion

The SOP is an outcome of management commitment, institute leadership commitment, steering committee's detailed deliberations with all the stake holders. This collective wisdom ensures participation, ownership of the plan among all the stake holders. The institutional strategic goals have strategies; Strategies have sub strategies with detailed implementation plan to ensure success and sustainability over a period of time. The execution and operational implementation is monitored by stringent evaluation standards and speaks the quality or the strategy itself. The caveat is Strategy itself can do nothing but its implementation holds the key. The strategy is not static document but dynamic due to continuous changing environment and it is an ongoing process to evolve as per the necessity.


Principal

Dr. G. GUNASEKARAN
PRINCIPAL

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Chairman