

E.G.S. PILLAY ENGINEERING COLLEGE

NAGAPATTINAM – 611 002



STRATEGIC PLAN

(2016 – 2026)

(Revised on September 2024)

E.G.S. PILLAY ENGINEERING COLLEGE,
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Note: Minimum Retention period = 10 years & Disposal Authority- Top Management

SCOPE OF THE STRATEGIC PLAN

- **Name of the Address :** E.G.S. PILLAY ENGINEERING COLLEGE
 - NAGAPATTINAM
 - Pin code: 611002
 - TAMILNADU
- **Title :** STRATEGIC PLAN (2016-2026)
- **Scope :** Planned to achieve 10 years long term goals from 2016-2026 through Outcome Based Education in Engineering and Technology

INSTITUTION PROFILE

E.G.S. Pillay Engineering College is one of the pioneering non-grant engineering colleges in the state. It was established by E.G.S. Pillay & Sons Educational & Charitable Trust, Nagapattinam in the year 1995 with the approval of the Government of Tamilnadu and the All India Council for Technical Education, New Delhi. The courses have been affiliated to Anna University, Chennai. The college has earned the reputation of being one of the most preferred colleges by the students and parents all these years. Known for its excellent infrastructure and facilities for learning, the outstanding non-grant engineering college has registered impressive performance consistently. A gateway to success, the college has now set on long-range planning to enlarge and enrich its programs and activities to empower the youth who aspire to become successful Engineers, Scientists and Managers.

The college is situated in picturesque surroundings, abutting Nagapattinam- Nagore Highway, 5 kms from Nagapattinam and 2 kms from Nagore. The college, having been located in the rural belt backward area, is carrying on yeoman service providing high quality education to the students of this rural area.

List of Courses offered

I. Under Graduate Programmes

1. Mechanical Engineering
2. Computer Science and Engineering
3. Information Technology
4. Electronics and Communication Engineering
5. Electrical and Electronics Engineering
6. Civil Engineering
7. Artificial Intelligence and Data Science
8. Biomedical Engineering
9. Computer Science and Business Systems

II. Post Graduate Programmes

1. M.B.A
2. M.C.A
3. M.E (Manufacturing Engineering)
4. M.E (Computer Science Engineering)
5. M.E (Power Electronics and Drives)
6. M.E (Communication systems)
7. M.E (Environmental Engineering)

III. Research Centre

1. Information and Communication Engineering
 - a. Computer science and Engineering
 - b. Electronics and Communication Engineering
 - c. Information Technology
2. Civil Engineering
3. Mechanical Engineering
4. Electrical and Electronics Engineering

STRATEGIC PLANNING PROCESS

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.

The institution has developed a Strategic Plan for the successful accomplishment of the Vision and Mission, which it dreams of. This strategic planning helps the institution to meet out the internal and external environmental requirements. With the understanding of external environmental analysis such as challenges and opportunities and internal strengths and weaknesses, the institution can move to achieve its set goals and objectives.

To develop the Strategic Plan, the institution has constituted a committee to establish the Strategic Planning and Implementation for the college. The strategic planning process and the preparation of the strategic planning document were discussed in three different meetings, each of which was held between January and February of 2015. In the first meeting, the Strategic Planning Committee discussed what strategic planning is all about, pros and cons, etc. It was decided that a strategic plan for ten years would be effective. At the end of the meeting, a skeleton of strategic plan for 2016-2026 was developed. The first part of Strategic Planning elucidates the vision and mission of the institution along with long term & short-term goals.

In the second meeting, a SWOC analysis was conducted to find out the Strengths, Weaknesses, Opportunities and Challenges of the college and the points were consolidated. Based on the observation of SWOC analysis, 8 thrust areas and sub thrust areas were created. To prepare for their various thrust areas, the Strategic Planning and Implementation Committee (SPIC) developed long term goals and short-term goals for their respective thrust areas, as well as the Strategy Implementation Plan and action plans. This long term and short term goals are monitored by monitoring committee 2 to 3 weeks before Governing Body meeting.

Finally, in the third meeting, the strategic plan for ten years was prepared based upon the Vision, Mission, Goals and objectives and action plans that were discussed during the meeting. The finalized copy of the Strategic plan is approved in the Governing Body Meeting.

Process flowchart of Strategic Planning

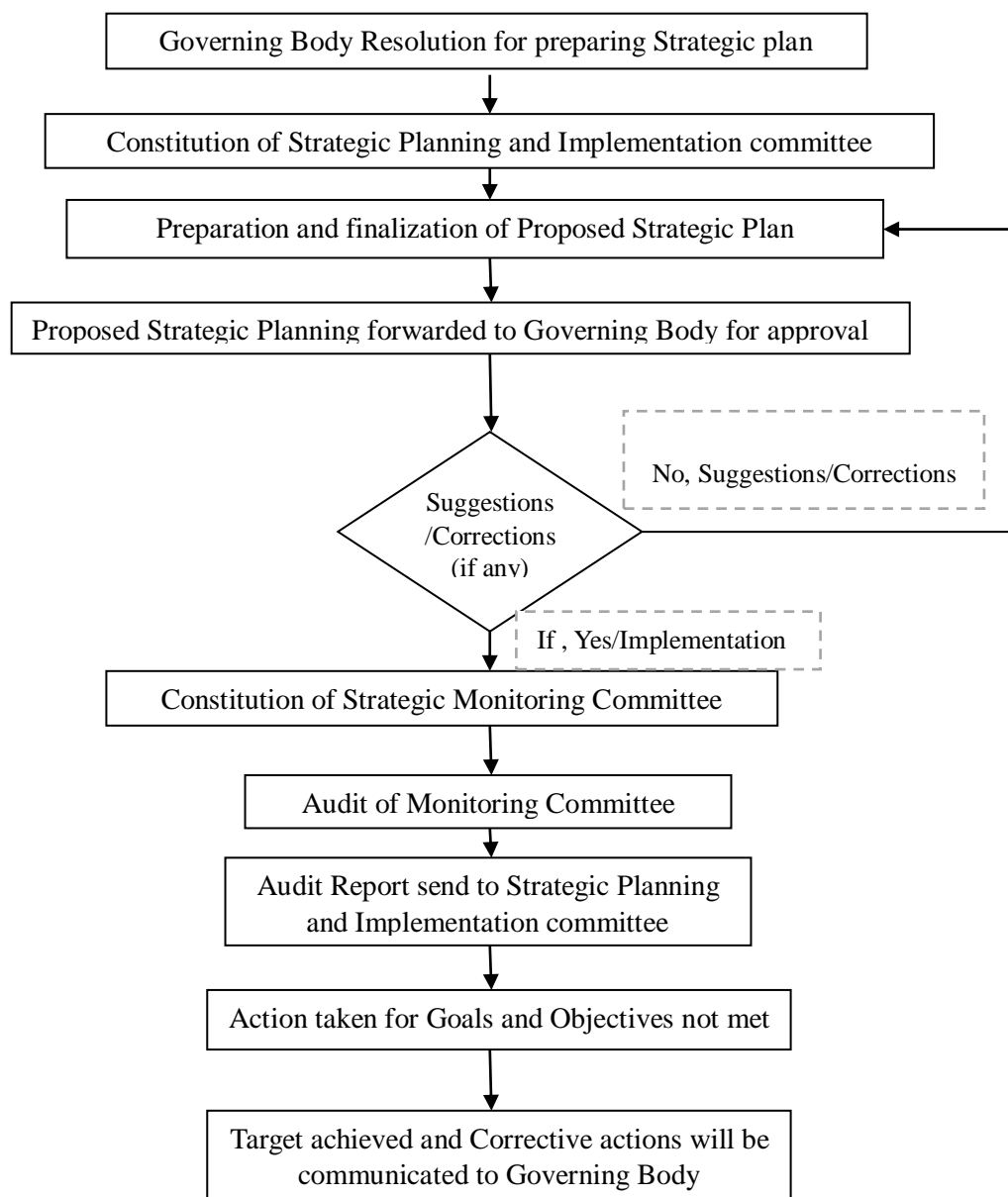


Figure: Flowchart – Strategic Planning Process

VISION AND MISSION OF THE INSTITUTION

Vision:

Envisioned to transform our institution into a "Global Centre of Academic Excellence"

Mission:

- To provide world class education to the students and to bring out their inherent talents
- To establish state-of-the-art facilities and resources required to achieve excellence in teaching -learning and supplementary processes
- To recruit competent faculty and staff and to provide opportunity to upgrade their knowledge and skills
- To have regular interaction with the industries in the area of R&D and offer consultancy, training and testing services
- To establish centers of excellence in the emerging areas of research
- To offer continuing education and non-formal vocational education programmes that are beneficial to the society

SWOC ANALYSIS

INSTITUTIONAL STRENGTHS

- International Collaborations and Exposure
- Discipline centered Institution
- Clean and Green Campus
- ISO certified
- State of the Art's sports infrastructure
- Career Guidance and Soft Skills Training
- Community radio to support society
- WIFI Campus
- Updated curriculum and Syllabi
- All classrooms are equipped with LCD Projectors
- Two Enormous auditoriums
- Spacious Library to motivate self-learning
- Faculties and Students are motivated to attend NPTEL and similar MOOC courses
- Stakeholders' involvement in BOS meetings to update syllabus with most recent trends
- Usage of technology to monitor faculty and students' quality (ERP)
- Frequent parents and teachers' meetings to ensure stakeholders satisfaction
- Co-curricular and Extra-curricular activities participation
- Well-functioning NSS team
- Guest lectures from industry people
- Collaboration with industry — consultancy and research projects
- Alumni as resource persons in industry institute interaction
- Consistent placement records
- Usage of sustainable energy (solar, windmill)
- Dedicated Entrepreneurship Development Cell
- Dedicated R&D Cell
- Dedicated Women Empowerment Cell

INSTITUTIONAL WEAKNESSES

- Locality — being in a rural area
- Lack of collaborative work
- Students' involvement in research

- Enabling faculties and students to file patents
- Enabling students to pursue higher studies
- Generating external funding (from external 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
- Make-A-Thon/Hack-A-Thon
- Redesigning of curriculum to prepare engineers fit for industry
- Convenience of industry relevant projects and training to students
- Availability of a Research and Development lab to cultivate innovative ideas
- Preparing students to appear for competitive exams.
- Signing of MoU with industry for Collaborative Research and Development

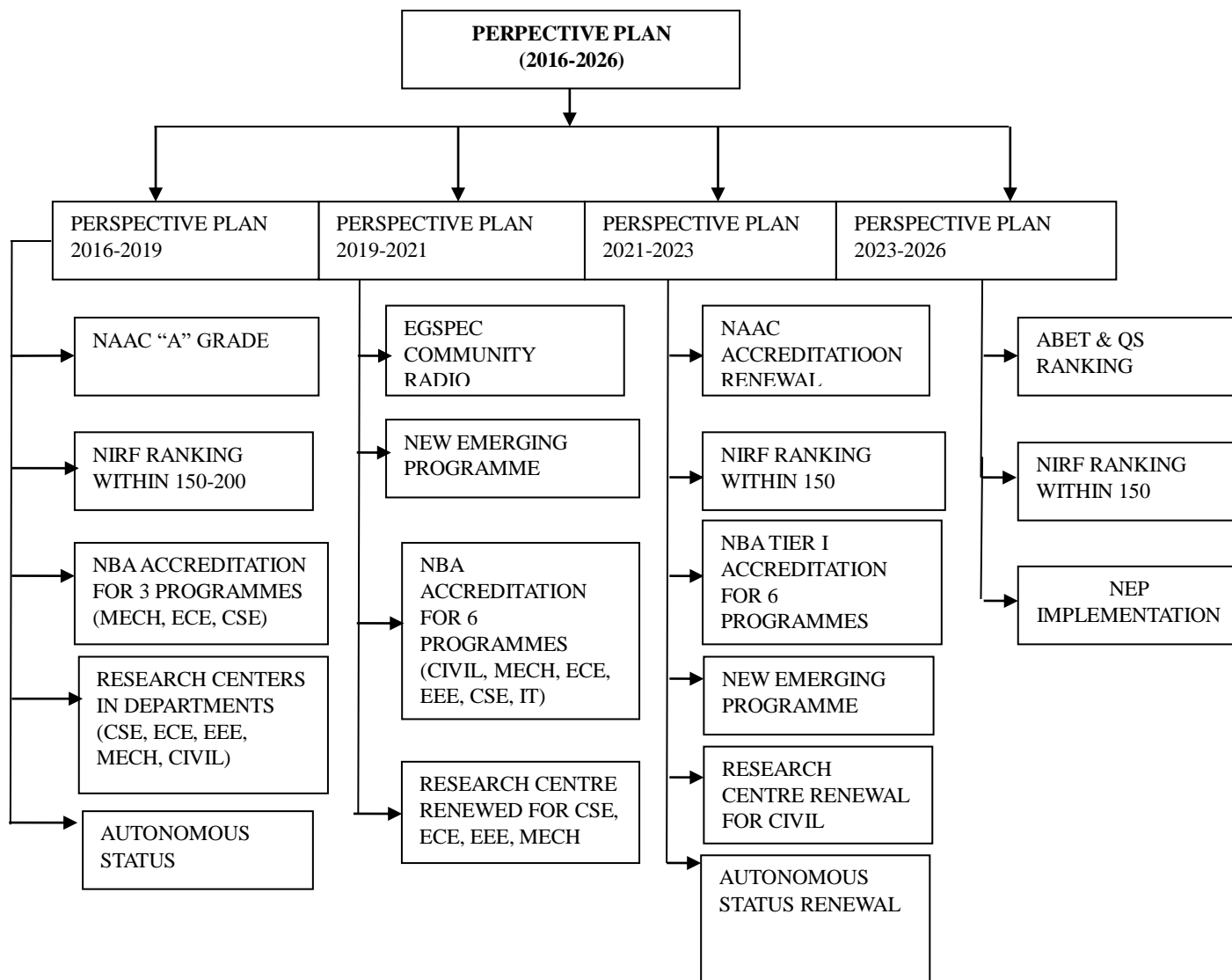
INSTITUTIONAL CHALLENGES

- Admission of students from other states
- Motivating faculties and students to equip with recent tech and trends
- Dealing with behavioral changes among students
- Being in a rural area, providing students with knowledge of recent developments
- Bridging the gap between syllabus and industry expectations
- Helping students to adapt to volatile market situation

**THRUST AREAS AND SUB THRUST AREAS FOR
ACHIEVING NBA, NAAC, AUTONOMOUS, RESEARCH CENTRES AND OTHERS**

S. No	Thrust Areas	Sub - Thrust Areas
1	Research and Development	<ul style="list-style-type: none"> • Journal Paper Publications • R&D Projects • Ph.D. Programmes • Create ICT enabled culture. • R&D Proposals • Consultancy / Incubation centre
2	Improving Teaching & Learning Process	<ul style="list-style-type: none"> • Classrooms are to be provided with LAN connections • Encourage faculty members to complete FDP/NPTEL courses • Community radio to broadcast educational programmes 24/7
3	Students' Developments	<ul style="list-style-type: none"> • Conduction of Personality Development Classes • Coaching Classes for GATE, IAS & other such competitive exams • Entrepreneurship Training programs such as Ideathon & Hackathon are to be conducted. • Interaction of students with alumni & Industry must be ensured.
4	Continuous Improvement	<ul style="list-style-type: none"> • Conduct of Academic and Administrative Audits every year by all the departments • Analyze the reports of audit for Continuous Improvements, suggestions will be obtained to improve further
5	Good Governance	<ul style="list-style-type: none"> • Decentralized working Environment • Implementation of a Transparent Governance System • Implementation of Governance Redressal Mechanism • Regular IQAC Meetings to be conducted • Regular meetings with staff members / HoDs / Deans / Directors • Monthly targets and Incentive for all staff members based upon monthly work completion reports
6	Developing Sustainable, Green and Clean Campus	<ul style="list-style-type: none"> • Necessary Infrastructure Development • Enabling a Sustainable and Green Campus
7	Improving Industry-Institute Interaction	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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

PERSPECTIVE PLAN (2016-2026)



STRATEGIC PLAN IDENTIFIES THE FOLLOWING TARGETS FOR 2016-2026

2016-2019

- To get accreditation from NBA for 3 programmes (Mech, EEE, CSE)
- To attain the NAAC with Grade 'A'
- To be Ranked in NIRF within 150-200 institutions
- To establish the Research centres of CSE, ECE, EEE, Mech and Civil department
- To receive the Grant of Autonomous status

2019-2021

- To establish a community radio
- To get approval for New Emerging Programmes
- To obtain NBA accreditation for 6 Programmes
- To renew research centres for CSE, ECE, EEE, Mech and Civil department

2021-2023

- To renew NAAC for 2nd Cycle Accreditation
- To be ranked in NIRF within 150
- To get NBA Tier I accreditation for 6 programmes
- To obtain approval for New Emerging Programme
- To renew Research centre for Civil
- To renew the Autonomous Status

2023-26

- To be Ranked in ABET and QS
- To be Ranked in NIRF within 150
- To implement the suggestions of NEP

“This Strategic Plan document is approved in 35th Governing Body Meeting”

STRATEGIC PLAN - TO ACHIEVE THE PERSPECTIVE PLAN
(STRATEGIC PLAN, IMPLEMENTATION AND EVALUATION)

GOALS	STRATEGIC PLAN	Implementation of Strategic Plan	Evaluation and Action taken	ASSESSMENT PERIOD
Effective Program Curriculum and Teaching Learning Process	<p>Program Curriculum Development Input from Stakeholders Input from Professional Bodies Input from premier institutions Drafting Curriculum Approval from DAAC, BOS and Academic Council</p> <p>Effective Teaching Learning Process Preparation of Academic calendar, Timetable & Course plan Innovative Pedagogical Initiatives Rubrics for Assignments, Seminar, Industrial Visit, Internship and Capstone Projects</p> <p>Assessment of Teaching learning Process</p> <p>Direct Assessment for measuring the performance of students in Theory and Laboratory papers using Continuous Assessment, Practical Assessment and Semester End Examinations. Indirect Assessment will be done through Course End survey, Graduate Exit Survey, Alumni survey and Employer survey.</p>	BOS Chairman, Approval by Academic Council.	BOS Chairman, Academic Council members and Anna University.	Once in a semester
Research and Development	<p>Cash awards worth of Rs. 50,000/- can be claimed every year</p> <p>Encouraging faulty members to publish one research paper in SCI/SCOPUS/IEEE and reputed journals.</p>	Faculty members and HOD	Director R&D	Once in a year

	<p>Motivating the faculty members to apply for external funded research Proposals/projects with international collaborations.</p> <p>Encouraging Industry sponsored R&D projects.</p> <p>Introducing cash awards for the consultancy projects of the Coordinator.</p> <p>Encouraging faculty members to publish Books and Book Chapters in reputed publications.</p> <p>Patents & Copyrights</p>			
Students Development	<p>Inclusion of Professional Development Classes in regular timetable</p> <p>Coaching Classes for GATE, IAS & other such competitive exams.</p> <p>Industry based Training Programme in core domains in the month of May.</p> <p>Connecting students with professional societies</p> <p>Organizing and encouraging students to participate in Ideathon / Hackathon.</p> <p>Ignite the students' startup ideas through startup club. Organizing International Symposium, Science exhibition, and International Conferences to share and strengthen the students' knowledge.</p> <p>Publishing Newsletter and magazine to spread the</p>	<p>Faculty members, Program Coordinators, Professional Societies Incharges, Newsletter and Magazine Coordinator.</p>	HOD	Once in a year

	<p>intellectual initiatives of students every semester.</p> <p>Encouraging the students to learn online courses</p>			
Continuous Improvement	<p>Suitable actions will be taken based on the results of the POs and PSOs achieved and non-achieved for every batch to improve the quality of education.</p> <p>Two internal audits and one external Academic Audit will be conducted annually and suitable actions will be taken.</p> <p>Career Guidance session will be conducted to promote higher studies among the students.</p> <p>Improvement in the quality of students admitted to the programs by obtaining NBA, NAAC and NIRF Ranking.</p>	<p>Faculty members, IQAC Coordinators, Career Guidance Coordinator</p>	HOD	Once in a semester/year
Faculty Development and Contributions	<p>Insisting faculty members to attend atleast one FDP/STTP per semester minimum of six days to enrich their domain knowledge.</p> <p>Creating research facilities and supporting the students and faculty members to involve in R&D activities.</p> <p>Measuring Faculty Performance appraisal and Development system and guiding them to focus on self-development.</p> <p>Validate the certificates of NPTEL & MOOC courses for performance appraisal.</p> <p>Faculty members are encouraged to attend Industry Training related to core course/industry need or current research field per semester.</p>	HOD	HOD, Principal	Once in a year
Facilities and	Providing Smart Class rooms &	Lab Coordinator,	Principal	Once in a year

Technical support	<p>seminar halls to understand the concepts better.</p> <p>Modernization of Laboratory with latest equipment.</p> <p>Latest books and e-journals will be provided for students and faculty access. Individual login will be given to access the website at home.</p> <p>Latest system configuration, software, equipment, tools will be purchased for the laboratories needed.</p> <p>Safety & Security management, Medical facility,</p> <p>Developing sports (indoor outdoor) Facilities, Hostel maintenance will be done effectively.</p> <p>Insurance Facility for both Faculty & Students</p> <p>Foreign Language</p>	HOD, Administrative Officer		
Students Support System	<p>Mentoring system - Personal Counselling by Psychiatrist, peer Mentoring and Faculty mentoring</p> <p>Developing an environment to support self-learning among the students.</p> <p>Effective grievance redressal committee will be formed to understand the problems of the students and support them.</p>	Counsellors, Faculty members, HOD	IQAC	Once in a semester
Training and Placement and Entrepreneurship and Higher Studies.	<p>MOU- Institute-Industry Collaboration</p> <p>MOU- Institute-Institute Collaboration</p> <p>Industry need based curriculum</p> <p>Training for the students to improve their communication</p>	Director T&P, Trainer, EDC Coordinator, Career Guidance Coordinator, IIC/Start-up Cell coordinator	IQAC	Once in a year

	<p>skills and domain knowledge.</p> <p>Motivating start-ups and entrepreneurial ideas among the student</p>			
Good Governance	<p>Twice in a year Governing body meeting will be conducted for monitoring and approving the institutions decisions.</p> <p>Academic Council, Board of Studies will be conducted to improve and approve the academic requirements.</p> <p>Decentralized working Environment</p> <p>Implementing a Transparent Governance System</p> <p>Implementation of Grievance Redressal</p> <p>Regular IQAC Meetings will be conducted</p> <p>Regular meetings with staff members / HoDs / Deans / Directors to measure the progress of quality of education.</p> <p>Semester-wise work progress assessment</p>	IQAC, Principal	IQAC, Top Management and Governing Body	Once in a semester/year
Developing Sustainable, Green and Clean Campus	<p>Rain Water Harvesting</p> <p>Waste water treatment</p> <p>Biomass plant</p> <p>Creating Solar cum wind mill</p> <p>Green and clean campus</p>	Faculty members, HOD, Estate Maintenance Officer	IQAC & Principal	Once in a Year
Improving Industry Institute Interaction	<p>Creating more MoUs</p> <p>Suggestions from industry persons in curriculum</p>	HOD, Training and Placement Cell, Principal	Principal	Once in a Year

	development Partial delivery of courses from industrial experts Conducting Value added course by industry person Arranging Industrial visits Arranging internship for students in industry Creating industry supported labs Alumni Interactions related to Industry needs			
Enhancing Alumni Network	Formation of Alumni association Participation and registration of alumni Database creation Regular interactions with alumni and networking Recognition of successful alumni Annual Alumni Meet Alumni Suggestions for curriculum development	Alumni Coordinator	IQAC	Once in a Year

GOALS OF THE INSTITUTION (2016-2026)

Transform the institution as "Global Centre of Academic Excellence" by utilizing the resources and expertise.

WORLD CLASS EDUCATION AND TO BRING OUT THE INHERENT TALENTS

- 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
- Increasing new Programs year on year based on the market demand.
- Conduct Seminars & Expert Lectures through professional bodies.

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

- High speed networking facilities.
- Creation of Digital Library.
- Ensuring the availability of e-resources to the students for research and academic purpose.
- Upgrade the internet bandwidth for increased usage of e-resources including hostel requirements.
- Offer open elective to encourage interdisciplinary knowledge.
- Encourage multidisciplinary projects and electives.
- Creation of Incubation Centre.
- Implement OBE, active learning, open ended experiments.
- Blended learning: E-learning, virtual labs, NPTEL courses.
- Comprehensive course implementation.
- Increase industrial visits and make it more accountable.

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.
- Motivating faculty members to publish research papers in SCI journals through.
- Encourage faculty members to innovate new design and products for patent.
- Encourage faculty members to get project funding.

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

- Modernize Research and Development laboratory with latest equipments.
- Collaborate with universities/Institution of repute for research activities.
- Encouraging Industry collaborations projects
- Set up laboratories to pursue research with reputed companies.
- Inviting reputed companies to set up an office within the campus to create industry atmosphere
- Updating the laboratory facilities on demand basis.
- Concentrating on external funded research projects with international collaborations.
- Encouraging Industry sponsored R&D projects.
- Developing Consultancy projects.
- Introduce industry relevant courses
- Support of patent publication and commercialization
- Enhancing the number of MOUs with Industry and revisiting the existing MOUs based on its merits.
- Increasing the connect with the Industry through guest and expert lectures
- Industry experts delivering part of the courses
- Regular training through T&P to the students to fulfill industry expectations

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

LONG TERM GOALS (2016-2026)

LTG 1. To transform as --Global Centre of Academic Excellence-

- Transform the institution as “Global Centre of Academic Excellence”- by utilizing the resources and expertise in each cluster.

LTG 2. To develop the institution with modern Infrastructure

- Modernize Research and Development laboratory with latest equipment
- Advanced classroom setup for quality education
- High speed networking facilities
- Creation of Digital Library

LTG 3. To increase the number of faculty with PhD qualification

- Encourage faculty to register for Ph.D.
- Support the faculty to complete their Ph.D.
- Recruitment of faculty with Ph.D.

LTG 4. To motivate students to become entrepreneurs

- Conduct Business Plan and Idea Competition
- Encourage more start-up opportunities among students
- Creation of incubation centre
- Support the best projects with venture capital

LTG 5. To integrate with Foreign/National institutions research organizations

- Partnership with Foreign universities/Institution for faculty exchange programs.
- Collaborate with universities/Institution of repute for research activities.
- Academia & industry holistic learning experiences.

LTG 6. To establish collaborative laboratories with the support of industry

- Encouraging Industry collaborations projects
- Set up laboratories to pursue research with reputed companies.
- Inviting reputed companies to set up an office within the campus to create industry atmosphere

LTG 7. Uplift the society through strengthening the Social Activities

- More social activities to connect with the neighborhood Community through departments and committees of the college

SHORT TERM GOALS/OBJECTIVES (2016-2026)

STG 1. Accreditation for eligible programmes

- It is required to get all the eligible UG programs accredited by NBA from time to time.
- Accreditation status by NAAC every cycle

STG 2. Strengthen the Technical Facilities and Support systems.

- Updating the laboratory facilities on demand based.
- Ensuring the availability of e-resources to the students for research and academic purpose.
- Upgrade the Internet bandwidth for increased usage of e-resources including hostel requirements.

STG 3. Enhance the Output in R&D, Consultancy and Incubation Centre.

STG 4. Introduce New Emerging Programs.

- Introduce new and advanced courses depending upon the demand.
- Plan to offer open electives to encourage interdisciplinary knowledge.
- Encourage multidisciplinary projects and electives.
- Increase the additional intake of the existing courses.

STG 5. Introduction of new Curriculum

- Design and development for UG and PG Programs.
- Evaluate the course at the end.
- Introduce industry relevant courses.

STG 6. Support Intellectual Property

- Encourage faculty members to innovate new design and products for patent.
- Support of patent publication and commercialization.

STG 7. Improve teaching learning Process.

- Implement OBE, active learning, open ended experiments.
- Blended learning: E-learning, virtual labs, NPTEL courses.
- Comprehensive course implementation.

STG 8. Organizing Technical Events

- Conduct Seminars & Expert Lectures through professional bodies.
- Increase industrial visits and make it more accountable.
- Conduct international conferences/symposia and pre conference workshops.

STG 9. Encourage Industry Institute Collaborations.

- Enhancing the number of MOUs with Industry and revisiting the existing MOUs based on its merits.
- Increasing connects with the Industry through guest and expert lectures.
- Industry experts delivering part of the courses.

STG 10. To make use of technologies for providing skill sets and additional self-learning

- Adopt digital learning, e-learning solutions, and interactive sessions.
- Encourage self-learning techniques.

PRINCIPAL

***Revised on September 2024**