

STRATEGIC PLAN



KARPAGA VINAYAGA

COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)
GST Road, Chinna Kolambakkam – 603 308, Chengalpattu Dt. Tamilnadu.

1. About the Institution:

Karpaga Vinayaga College of Engineering and Technology (KVCET) is being established under the Aegis of Karpaga Vinayaga Educational Trust in the year 2001 with a strong motivation and deep-rooted commitment for providing quality professional/technical education with core values and guiding principles. The Institute is affiliated to Anna University, Chennai and is approved by the All India Council for Technical Education (AICTE), New Delhi and has NBA accredited programs. KVCET contains well qualified and handful experienced faculty members who act as mentors & facilitators for the students to create a comfort learning atmosphere and to produce skilled engineers with human values. The Institution is recognized by the Department of Scientific Industrial Research Organization (DSIR), New Delhi. KVCET is recognized by the UGC under 12(B) and 2(f) category.

Students of KVCET are groomed carefully and the virtues of hard work, discipline and ethical practices in profession are imbibed in them constantly during their campus life. Campus life here stresses the importance of extra academic activities apart from academic learning, leading them to many new avenues. All these go a long way in making our student a thoroughbred professional, eminently suited to contribute in his chosen career with an ever open mind for new thoughts and ideas in industrial and technological advancements. We are hence confident that our students equipped with such capabilities will emerge as valuable contributory assets to the development of the organizations they serve as well as to the nation.

2. Courses Offered:

The college offers Ten UG Program & Seven PG Program namely,

- B.E. Automobile Engineering,
- B.E. Bio-Medical Engineering,
- B.E. Civil Engineering,
- B.E. Computer Science & Engineering,
- B.E. Electrical & Electronics Engineering,
- B.E. Electronics & Communication Engineering,
- B.E. Mechanical Engineering,
- B.E. Robotics & Automation Engineering,
- B.Tech Bio-Technology,
- B.Tech. Artificial Intelligence & Data Science
- M.E. Big Data Analytics,

- M.E. Biometrics & Cyber Security,
- M.E. Computer Science and Engineering,
- M.E. Manufacturing Engineering,
- M.Tech. Bio-Technology,
- MBA
- MCA.

3. Preface:

Strategic Planning of the institution plays a vital role in successful accomplishment of the Vision and Mission, which it dreams of. Strategic planning is a continuous process with a specific emphasis on accomplishing institutional goals in this highly competitive world. The basic strengths of strategic planning are its abilities to help align the organization with its environment, i.e., a set of internal and external forces that can positively or negatively affect the activities of an Institution. The Strategic Planning and Deployment (SPD) is formulated based on analysis of present challenges and future opportunities and it envisions the direction towards which the institution should move to achieve its set goals and objectives.

The first part of SPD elucidates the vision, mission and core values of the institution along with long term & short term goals. The SWOC analysis of the institute formed the basis in framing the vision and mission which in turn depend on the feedback from stakeholders. After analyzing the internal and external environment, the institutional goals were set up in all possible growth domains through a brain storming sessions with HODs and faculty members. The strategies with action plans were decided to achieve institutional strategic goals.

While formulating the strategic plan and deployment document, each and every stakeholder is made to involve by building a spirit of ownership in them. The document is circulated to all the departments. Highest attention has been paid to spell out clearly the execution and monitoring by identifying measurable targets in line with the anticipated outcomes. The SPD is discussed meticulously and approved by the Staff Council of the institution.

The SPD will synchronize the processes and efforts of the institution and it will also ensure that the institution will become a most preferred higher education institution in the Country by 2026.

4. VISION, MISSION & QUALITY POLICY:

Vision

Imparting innovative higher education with greater accentuation on high value systems shaping personnel for nation-building.

Mission

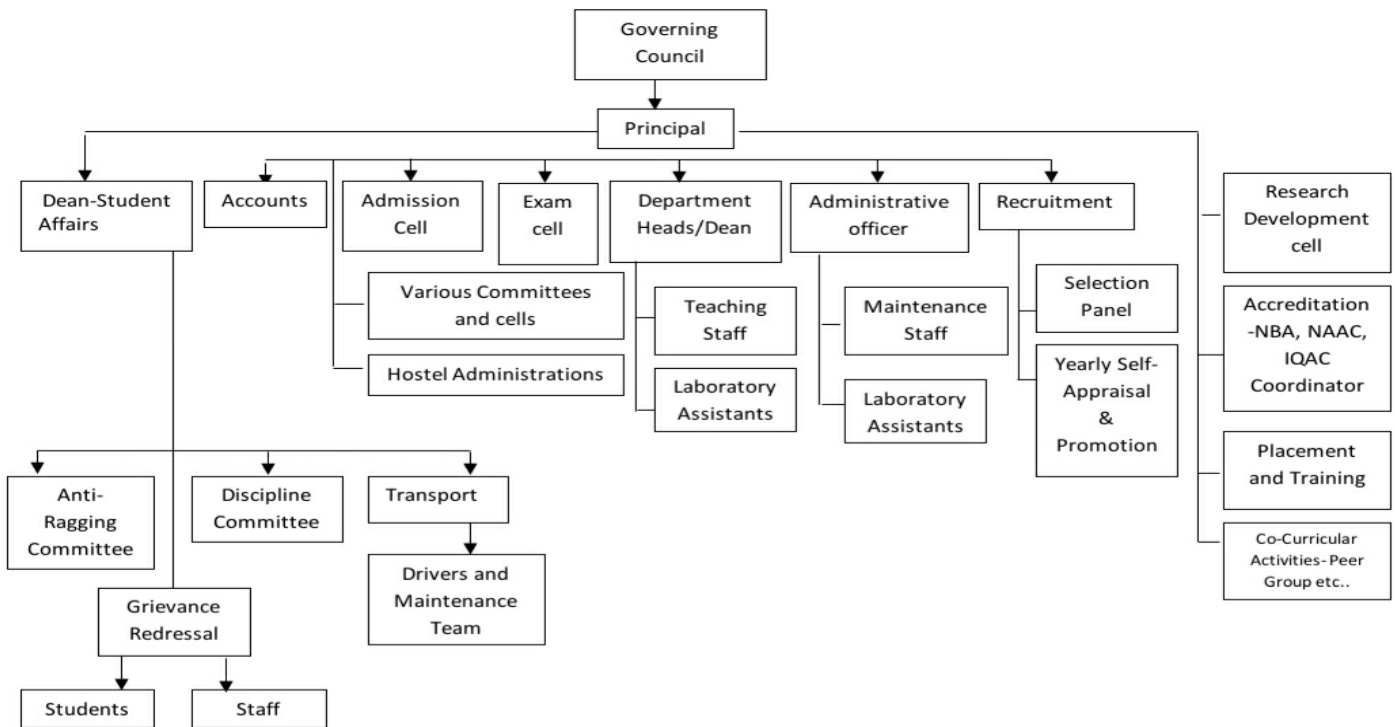
- To impart quality technical education by providing state-of-the-art infrastructure with dedicated faculty.
- To provide contemporary technical education for facing the needs and challenges of industries and research establishment at global level.
- To effect socio-economic transformation of society by inculcating human values and social responsibilities.

Quality Policy

To create globally competent and ethical professionals and meet the emerging needs of the industries and society through,

- Innovations in teaching and learning for enhancement of student potential
- Applied research in terms of quality publications, patents & sponsored projects
- Industry interaction for experiential learning & consultancy activities for students and faculty
- Innovation, Entrepreneurship and Start-up
- Outreach activities for community development
- Continual improvement of Quality Management System

5. Organizational Structure:



6. SWOC Analysis:

Institutional Strength

- Devoted Management with a vision for academic excellence and rural upliftment.
- Sprawling lush green campus in a serene environment with excellent infrastructure with Wi-Fi enabled campus.
- Experienced Faculty with strong work ethics, commitment to quality, positive outlook and perseverance in the face of any adversity
- Wi-Fi Enabled campus. Library stocked with wide range of reference books, text books, journals, magazines, online resources, and digital library.
- Proactive Internal Quality Assurance Cell (IQAC) to ensure quality in Teaching - learning process.
- Constituted various clubs and SAE, CSI, chapters to facilitate co-curricular and extension/outreach activities.
- MoUs with leading industries / institutes have been signed for the benefit of the students and

faculty to upgrade the knowledge and inculcate the research culture.

- Effective mentoring system providing constant guidance to the student and feedback to the parent.
- Facilities available for various indoor and outdoor games and sports. Financial support to participate in national and international level events.
- EDC Cell and MSME Incubation Centre promote the spirit of innovation and entrepreneurship.
- Increased interest and effort among faculty towards research and publication in reputed journals.
- Promoting innovative and interdisciplinary projects through Peer Group Activities
- A separate placement and training cell to groom the students to be industry ready through training on communication, soft skills and special technical training.
- Effective involvement of alumni in placement of out-going students.
- Awards and Waste management system Extension and service to society through NSS, YRC, Unnat Bharat Abhiyan. Constant Endeavor to upgrade quality.

Institutional Weakness

- Limited academic freedom
- Majority of the students are from rural areas, so improving overall personality development of the students is a challenge.
- Institute lacks in revenue generation through consultancy

Institutional Opportunity

- Skill development programmes and trainings from first year onwards.
- Investment in e-learning and starting of Massive Online Open Course (MOOC's) is an opportunity waiting to be harnessed for quality education and to generate resources particularly through distance education mode.
- Scope for commercialization of research outcomes
- Training the students in the new technology areas for enhancing employability
- Revenue generation through resource sharing
- Faculty and student exchange programs with foreign organizations
- Having potential to become an autonomous Institute to address the shortcomings under affiliation system.
- Establishment of Research Centers in emerging areas in all departments

Institutional Challenge

- Curriculum and Regulation restrictions of the Parent University
- Establishing High-End Labs for the courses with the help of Industry support
- Obtaining funds from the Industries for research projects
- Improving Quality of student intake in certain departments due to change in preferences.
- Increase placements in core industries
- Execution of collaboration with foreign Institutions
- In this fast-growing technological era, it is becoming difficult to adjust and adapt quickly since the academic curriculum is prescribed by the affiliating Anna University.
- Improving the employability of the students in the current scenario of rapidly changing technology

7. Strategic Plan Identifies the following road targets for next five years

- Attain the status of University within next 5 years.
- To attain NAAC A++ grade during 2nd Cycle Accreditation.
- To be ranked among TOP 50 engineering institutions in NIRF Ranking.
- Promote industry-institution collaboration with top MNCs.
- Establish Centre of Excellence in upcoming engineering fields like advanced materials and manufacturing, artificial intelligence, energy and internet of things.
- Incubate successful start-ups creating innovative products and business models using the knowledge and technologies developed by the Institution.
- Provide an invigorating work environment for faculty and staff.
- Improve the involvement of alumni in all the aspects of Institutions development by collaborating with them in placements, guest lecture, mentoring students in various projects, mentoring incubate, research and development, consultancy.
- Collaboration with various industries in the field of Research & Development and consultancy.
- Collaboration with Institutions around the world to promote quality higher education and for supporting students/faculty exchange programmes.

8. LONG TERM GOALS (2022-2027):

LG 1. To Create Centre of Excellence.

- Creation of Centre of Excellence (COE) by utilizing the resources and expertise in each cluster.

LG 3. To have 100% of Faculty with PhD qualification.

- Encourage faculty to register for Ph.D.
- Support faculty who have already registered to complete their Ph.D.
- Recruitment of faculty with Ph.D. from premier Institutions in specialized area/industry expertise.

LG 4. To facilitate students to become entrepreneurs (incubation center).

- Conduct Business Plan and Idea Competition.
- Encourage more campus companies to provide start-up opportunities for our students.
- Provide the necessary infrastructure for incubating the ideas.
- Bring in mentors to hand hold the students with innovative ideas.
- Provide the seed fund to develop prototype.

LG 5. 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.
- Adopt blended learning to maximize student learning.

LG 6. To collaborate with Foreign/National institutions of higher learning and research organizations.

- Collaborate with reputed Foreign Universities/Institution.
- Faculty exchange programs.
- Partnership programs.
- Collaborate with universities/Institution of repute for research activities.
- Best practices from reputed academia & industry to bring holistic learning experiences.

LG 7. To establish collaborative laboratories with the support of industry.

- Set up laboratories to pursue research with support of the reputed companies.
- Create experiential learning opportunities by providing live industry projects.

LG 8. Strengthening the conduction of social activities.

- The College plans to increase the conduction of social activities to create strong connectivity with neighborhood Community through various departments and committees of the college.

9. SHORT TERM GOALS (2022-2024):

SG 1. NAAC Accreditation & NBA Accreditation for all eligible programs.

- It is required to get all the eligible UG & PG programs accredited by NBA from time to time.
- To have accreditation status by NAAC from time to time.

SG 2. Strengthen the campus Facilities and Support systems.

- Augmenting the laboratories to stay relevant.
- Online access to material on website, to further augment library resources to meet the growing needs in academia and research.
- To upgrade the internet bandwidth to support the continuous utilization of the increased usage to cater to the entire campus including hostel requirements.

SG 3. Enhance the Output in Research and Consultancy.

- To enhance the quality of research publications by motivating faculty to publish in SCI journals.
- Focus on increasing the external funded research projects Research with international collaborations.
- Fostering Industry sponsored R&D projects.
- Enhanced Consultancy projects.

SG 4. Introduce New UG and PG Programs.

- Explore the possibilities of adding new Programs by assessing the requirements in the emerging areas.
- The institute can plan to offer interdisciplinary programs.

SG 5. Introduce Multidisciplinary courses /Projects

- Introduce multidisciplinary courses (cluster approach: Institutional electives)
- Encourage multidisciplinary projects

SG 6. Development of new Curriculum

- Periodically design and develop for UG and PG Programs post academic autonomy
- Introduce course end survey
- Introduce industry relevant courses
- Encourage interdisciplinary projects

SG 7. Foster Creativity and Innovation.

- Establishing Centres of Excellence.
- Establish Incubation Centres.
- Apply for more patents to protect IP.
- Explore possibility of patent commercialization.

SG 8. Improve teaching learning Process.

- Implement pedagogical innovations: OBE, active learning, open ended experiments. Extended classrooms (virtual class rooms): Lecture capturing.
- Blended learning: E-learning, virtual labs, MOOCs, Social learning.
- Comprehensive course implementation.

SG 9. Organizing Technical Events.

- Conduct events in cutting edge technologies and recent trends & developments across various domains.
- Conduct Seminars & Expert Lectures through professional bodies.
- Increase industrial visits and make it more accountable.
- Conduct international conferences/symposia and pre conference workshops.

SG 10. Enhance Industry Institute Collaborations.

- Enhancing the number of MOUs with Industry and revisiting the existing MOUs based on its merits.
- Adjunct Faculty: Industry experts delivering part of the courses
- Collaboration with Industries for research and innovative projects.
- Increasing the connect with the Industry through guest and expert lectures

SG 11. Infrastructure requirement for e-Governance

- Creation of database for online submission of documents for approval to regulatory bodies.
- Automate academic administrative process and develop metrics to assess the performance from time to time.
- Create a database to maintain the student records online.
- Create process for examination and evaluation activities with secured database.

10. Implementation Strategy and Monitoring:

Once the Governing Council approves the strategic plan, the next step will be its implementation in its true spirit. Through the IQAC, the progress of the strategy will be measured periodically as it is implemented. The Principal, Associate Deans and HoDs are responsible for implementing the 'Strategic Plan' and ensuring its success.

A committee will be formed from time to time for review. From time to time, the following

leadership team will monitor the implementation against the measurable parameters and will prepare the detailed follow-up.

- Principal/HoDs
- IQAC
- Faculty and staffs
- Student representatives
- Industry representatives
- Parent nominees
- Alumni

11. Conclusion:

KVCET was founded in the year 2001 and it has grown progressively and achieved numerous milestones. The Strategic Plan is the outcome of a detailed deliberation between the steering committee and all stakeholders, and of the Management commitment and leadership commitment to this Institute. For Organizational success and sustainability, strategic goals include long term goal, short term goals and detailed implementation plans. Stringent evaluation standards are used to monitor the execution and operational implementation of the strategic plan. Strategy alone cannot make a difference, but excellent implementation of it can.

IQAC Coordinator

Principal