Jerusalem College of Engineering (An Autonomous Institution affiliated to Anna University, Chennai)

NBA and NAAC Accredited Institution NBA and NAAC Accredited Institution Velachery Main Road, Narayanapuram, Pallikaranai, Chennai-600 100



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STRATEGIC PLAN (2024 - 29)

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ABOUT THE INSTITUTION

Jerusalem College of Engineering (JCE) was established in the year 1995 under the umbrella of Jerusalem Educational Trust to impart Quality Engineering Education. Over the period of 29 years it has made a mark for itself and got established as an Institution which offers excellent Engineering Education. The institution was granted Autonomous status by University Grants Commission in 2019. It is one of the very rare Institutions which is situated in close proximity to premier educational institutions and also the IT Hub of Chennai. The faculty of the college have a nice blend of both academic and industrial experience. The alumni of the college holding key positions in various National/International organizations and Academic Institutions have brought laurels to the institution. The Institution is accredited by NAAC and NBA accreditation is obtained for B.E.- BME and B.E.- CSE programs.

The Institution offers the following nine Undergraduate programmes in Engineering, four postgraduate programmes in Engineering and two Management programmes. The departments of Civil Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering and Chemistry are recognized research centres under Anna University

Undergraduate Programmes

- ► B.E. Biomedical Engineering
- ➤ B.E. Civil Engineering
- ➤ B.E. Computer Science and Engineering
- ► B.E. Computer Science and Engineering (Artificial Intelligence and Machine Learning)
- ► B.E. Computer Science and Engineering (Cyber Security)
- ➤ B.E. Electrical and Electronics Engineering
- ➤ B.E. Electronics and Communication Engineering
- ► B.Tech. Artificial Intelligence and Data Science
- ➤ B. Tech. Computer Science and Business Systems
- ► B.Tech. Information Technology

Postgraduate Programmes

- ➤ M.E. Applied Electronics
- ➤ M.E. Computer Science and Engineering
- ► M.E. Construction Engineering and Management
- ➤ M.E. Power Electronics and Drives
- ➤ Master of Business Administration
- ➤ Master of Business Administration (Hospital Administration)

VISION

Jerusalem College of Engineering is committed in emerging as an International Institution of Excellence in imparting the finest quality Engineering, Technology and Management Education rooted in ethical and societal values through various academic programmes, multi-disciplinary research, consultancy and entrepreneurship activities, and hence in contributing towards social transformation and nation building.

MISSION

- Generating abundant resources and making conducive policies, the management led by the Chairperson strives towards promoting globally competitive academic programmes augmented with value added courses, in-plant training, co-curricular activities and ambience that support intellectual growth and skill acquisition.
- Promoting collaborative trans-border research programmes, continuing education in synergy with academia, industries and research organizations leading to real time solutions and lifelong learning.
- Transforming young men and women into competent professionals and entrepreneurs motivated by a passion for professional excellence, driven by human values and proactively engaging in the betterment of the society through innovative practices and academic excellence.
- Facilitating effective interaction among faculty and students, and fostering network of alumni, industries, institutions and other stakeholders for successful career gain and placement.

QUALITY POLICY

Qualitative Education and sense of high discipline are promises, we at the Jerusalem College of Engineering make to posterity and accordingly shall adopt and adhere to Quality policies, constantly monitor accountability and assure all stake holders that

"WE SHALL KEEP OUR PROMISE"

SWOC ANALYSIS

STRENGTHS -

The Management, faculty & staff of Jerusalem College of Engineering are committed to -

- Provide Quality Education and practice Outcome Based Education (OBE).
- Enrich the curriculum with industry supported laboratories to inculcate industrial practices.
- Follow Choice Based Credit System which enables students to gain knowledge in fields of their choice.
- Conduct several skill development programmes to enable them achieve their career goals.
- Encourage students to showcase their creativity through prototype development and applying for patents to foster Innovation and Entrepreneurship through Research & Development Cell and Entrepreneurship Development Cell established in the Institution
- Encourage students to work on startups through Jerusalem College of Engineering Business Incubation Cell (JCE BIC) of the Institution.
- Ensure effective governance through smooth running of the administrative activities of the college and up-gradation of the infrastructure
- Maintain a strong alumni association through which the alumnus participate and contribute to the college
- Successfully proctor the students in order to help them to face the challenges in life with confidence.

WEAKNESS

• As the college is located within the city limits, expansion of college

Infrastructure is limited.

- As an affiliated Institution, collaboration with foreign universities for student exchange program is challenging.
- Due to the decreased demand in pursuing PG (Engineering) programs, the enrollment in PG Programs is not up to the mark.
- Despite engaging in high-quality research, interdisciplinary collaborative research at the International level is still necessary.

OPPORTUNITIES

- Availability of well qualified and experienced faculty with high faculty retention.
- Organizing guest lectures and workshops by inviting resource persons from reputed institutions and industries at the global level.
- Upgrading the syllabus in pace with the latest developments in Engineering and Technology
- Generating revenue through sponsored projects and consultancy.
- Enhancing staff and student proficiency in cutting-edge technology through National and International online FDPs and certification courses
- Encouraging students to pursue NPTEL courses by providing credit transfer facility in the curriculum.

CHALLENGES

- Competing in a global market environment
- To change students' perspectives from exam-focused approaches to skill development approaches.
- Developing solutions to socio-ecological issues through technical education. •
- To obtain National ranking of the Institution

STRATEGIC GOALS

The quality policy, core values, SWOC (Strengths, Weaknesses, Opportunities, and Challenges) analysis, contemporary, social, technological, and competitive aspects as well as the vision and mission statements were taken into consideration while finalizing the strategic goals of the college for the next 5 years.

Jerusalem College of Engineering has established five major strategic goals that will help the Institution to fulfill its mission and achieve its vision. The strategic plan of the Institution includes the following major factors:

- 1. Imparting High-Quality Technical Education
- 2. Research & Innovation Multidisciplinary Research Institution
- 3. International Collaborations and partnerships
- 4. Global Visibility
- 5. Sustainability and Social Responsibility

The key focus areas are identified through the gap analysis, with respect to the Industry requirements, perceived status of the Institution, International developments and Entrepreneurship. Measures to improve the performance along with the methodology are detailed in the strategic planning process. The objective of the strategic plan is to elevate the status of the Institution as a leading Institution with National and International recognition with global ranking in selected disciplines. Efforts are taken, continuously, by all the enablers (Management, Faculty, Staff and Students with enhancement in infrastructure facilities) to become a well-known Institution in the society.

GOAL 1: IMPARTING HIGH-QUALITY TECHNICAL EDUCATION

- Continuously review & update curriculum to include courses on emerging, technologies, industry trends and interdisciplinary courses that cater to global students needs.
- 2. By emphasizing more hands-on-learning experiences, industry projects and a semester time for internships.
- 3. Establishing new Centres of Excellence focusing on key technological areas.

- Due to fast growing technology, perform gap analysis in discussion with stakeholders through the office of Academic Affairs of the Institution, to identify areas that needs to be adapted in the existing curriculum.
- Create a pipeline of industry projects, that students can participate in, mainly through internships or collaborative projects initiated by the Research & Development Cell and Industry Institute Interaction Cell of the Institution.
- To establish Centres of Excellence in emerging topics, the steps initiated by Industry Institute Interaction Cell of the Institution are the following -
 - Identification of emerging topics that align with industry trends, societal needs and academic strength of the Institution.
 - Develop a clear vision and mission statement for the centre outlining its objectives, target audience and expected outcome.
 - Allocate sufficient funds through grants or partnerships to support the activities of the centre.
 - > Encourage students to engage in research projects through the centre.
 - Continuously evaluate and assess the performance of the centre including research outputs and students' achievements.
 - Promote the achievements of the centre and publications using marketing strategies.

GOAL 2: RESEARCH & INNOVATION – MULTIDISCIPLINARY RESEARCH INITIATIVES.

- 1. Faculty to collaborate across disciplines and with external partners.
- 2. Obtain funding for impactful research projects that address National & global challenges using joint tie ups with Institutions of repute across the globe.
- 3. Establish research clusters and groups to address global issues and contribute to policy making and Industry advancements.
- 4. Promote commercialization and patenting of research products,

- The Research & Development Cell of the Institution takes the following initiatives to foster multi-disciplinary research through following measures -
 - Interactions among faculty from different disciplines by organizing events such as seminars, workshops etc.
 - > Recognize and reward interdisciplinary collaboration.
 - Identify potential external partners such as industry, government agencies and NGOs that align with faculty research interests.
 - Adapt strategies based on feedback from faculty and external partners to sustain a supportive environment for inter disciplinary collaboration.
- The Business Incubation Cell of the Institution (JCE BIC) encourages students and faculty to develop prototypes based on their creative ideas and showcase them in various Hackathons and also provide platforms through the incubation cell of the Institution to convert their prototypes to be market ready.
- To facilitate commercialization and patenting of research products, the Research & Development Cell of the Institution take the following steps -
 - Conducts an assessment of research findings to identity potential patentable innovations
 - Assesses the market demand to determine the commercial feasibility of the product
 - File patent application

GOAL 3: INTERNATIONAL COLLABORATIONS AND PARTNERSHIPS

- Form strategic partnership with renowned International universities, research Institutions and industry leaders.
- 2. Facilitate student and faculty exchange programs, joint research initiatives and collaborative projects.
- Offer dual degree programs or certifications with global accreditation to attract International students and enhance academic diversity.

- In order to build international collaborations and partnerships, an Office of International Affairs is setup in the Institution which is responsible for the following
 - International partnership
 - Identification of potential collaborators
 - Build relationships with peer Institutions
 - Identification of reputed accredited Institutions, recognized globally in Engineering field to offer certification programs.
 - > Facilitate student and faculty exchange programs.

GOAL 4 : GLOBAL VISIBILITY

- 1. Develop robust marketing strategy to enhance global visibility and attract top talent.
- 2. Showcase achievements, research breakthroughs and success stories to improve global visibility of the Institution.
- 3. Apply for International accreditation and ranking to validate academic excellence and institutional credibility.

- The Information and Communications Technology (ICT) committee of the Institution ensures the following best practices in digital marketing
 - Identifies clear objectives for global visibility such as increasing brand awareness.
 - Enhancing online presence.
 - Invest in content marketing that addresses global industry trends, challenges and solutions.
 - Utilize digital advertising
 - Participate in key industry events and trade shows worldwide to showcase products and services.
- Regarding achieving International Accreditation & Ranking, the Internal Quality Assurance Cell (IQAC) of the Institution takes the following measures -
 - Identify reputable International accreditation agencies & ranking systems relevant to the engineering field.
 - Prepare documentation and evidence
 - Implement Quality Assurance and Improvement processes
 - Submit application & support review process
 - Engage in continuous improvement.

GOAL 5: SUSTAINABILITY AND SOCIAL RESPONSIBILITY

- 1. Integrate sustainability principles into all operations available in the Institution.
- 2. To improve the livelihood of people living in neighboring areas through various awareness campaigns and programs.
- To design and offer courses / projects related to sustainable development of the society and the nation as a whole and supplement with clubs to roll-out more societal programs.
- 4. Engage in community outreach programs, social entrepreneurship programs focusing on women empowerment.

ACTION PLAN

- The IQAC Cell of the Institution takes the following measures to integrate sustainability principles into all operations -
 - Sets the Specific, Measurable, Achievable, Relevant and Time bound (SMART) goals.
 - Develop the policies and procedures to prioritize sustainability and social responsibility.
 - Educate and train the employees to understand their role in achieving sustainability goals.
 - > Implement metrics to measure and monitor the progress.
- The NSS and ROTARACT units of the Institution conducts various awareness programs and outreach programs to improve the community livelihood of neighbouring areas.
- The Research & Development Cell of the Institution takes necessary action to offer projects related to sustainable development of society.
- Entrepreneurship Development Cell and Women Cell of the Institution plans and organizes women empowerment programs to bring out the talents of women.

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