

Institutional Development Plan (IDP)



MAR EPHRAEM COLLEGE OF ENGINEERING AND TECHNOLOGY

Elavuvilai, Kanyakumari District,

Tamil Nadu

2025 - 2035

Mar Ephraem College of Engineering and Technology was run by Diocese of Marthandam Trust and established in the year 2009. Mar Ephraem is approved by All India Council for Technical Education (AICTE), New Delhi & affiliated to Anna University, Chennai since 2009. Accredited by NAAC with A Grade (2024-2029) 2nd Cycle and Recognized by UGC with 12(B) status of UGC ACT 1956

Courses Offered

- ❖ B. Tech - Artificial Intelligence and Data Sciences
- ❖ B.E - Computer Science Engineering
- ❖ B.E - Civil Engineering
- ❖ B.E - Electronics and Communication Engineering
- ❖ B.E - Electrical and Electronics Engineering
- ❖ B.E - Mechanical Engineering
- ❖ ME – Applied Electronics
- ❖ ME – Computer Science Engineering
- ❖ ME – Manufacturing Engineering
- ❖ MBA – Masters in Business Administration
- ❖ Ph. D - Computer Science Engineering
- ❖ Ph. D - Mechanical Engineering

The College has been effectively practicing Outcomes Based Education (OBE). The college has one of the largest student populations amongst engineering colleges in South Tamilnadu. Currently more than 1500 students are pursuing their higher studies in the College. The College continues to be the most preferred destination not only for the students of the state but also from various parts of the country

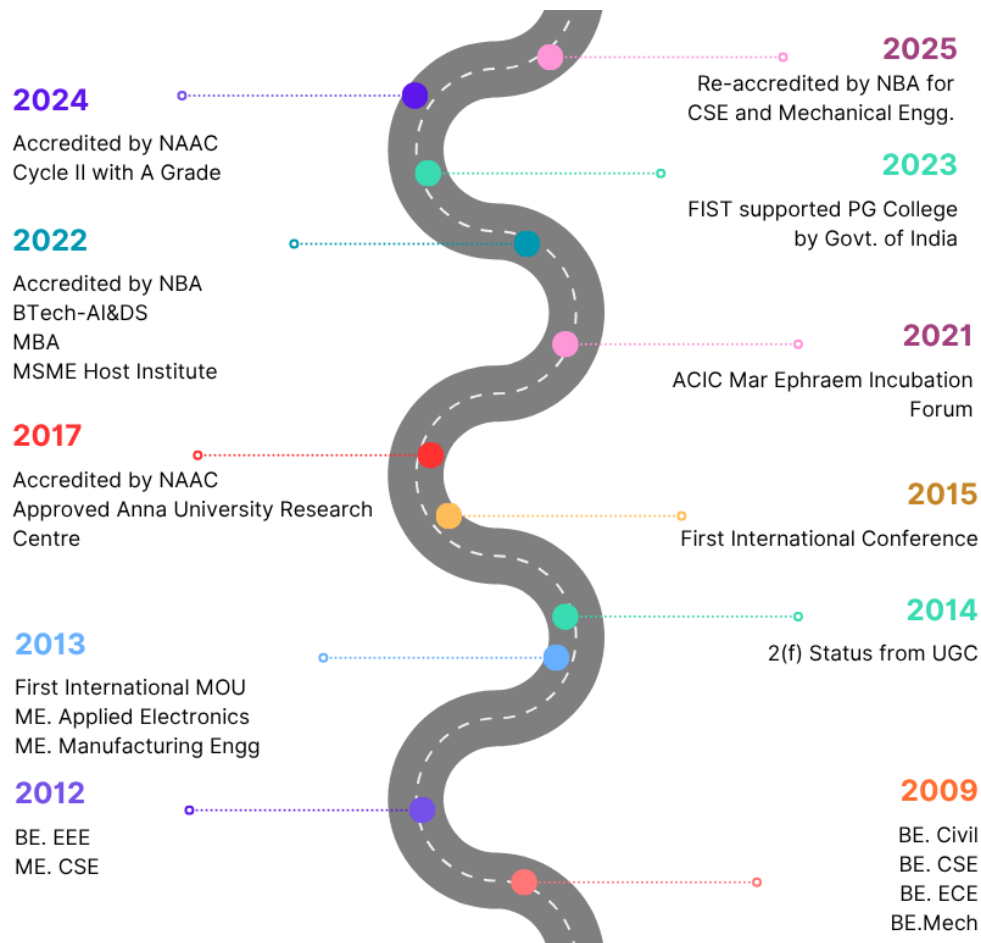
Vision

A world class Malankara institution of higher learning renowned for its excellence in Science and Technology and for its commitment to the holistic development of the individual and Society.

Mission

To provide quality and Value Based Education for the industrial and socio-economic development of the nation with its diverse cultures through relevant programs in teaching and learning, research, extension and community involvement.

Journey of Mar Ephraem



Mar Ephraem College of Engineering and Technology's Institute Development Plan focuses on transforming students into well-rounded professionals, equipping them with technical skills, and fostering a culture of research and innovation. The plan emphasizes a student-centered approach to learning, promoting ethical conduct, and encouraging collaboration with all the stakeholders.

Key aspects of the development plan include:

- **Curriculum Development:**

The college is actively engaged in curriculum development, including FDPs on OBE-based curriculum design and incorporating courses that enhance student knowledge, skills, and attitudes.

- **Research and Innovation:**

The college encourages faculty and students to engage in research, with funding from government agencies and collaborations with foreign universities.

- **Infrastructure and Environment:**

The college provides a conducive learning environment, including well-equipped laboratories and a focus on energy conservation.

- **Skill Development:**

The college offers skill development programs, including courses on prototyping and collaboration with industries.

- **Quality Assurance:**

The college is committed to quality assurance through accreditation from NAAC and NBA and continuous monitoring of its activities.

- **Value-Based Education:**

The college instills ethical values and social responsibility in students, preparing them to become committed nation builders and globally competitive engineers and innovative entrepreneurs who are vested with high values and understanding of their professional, social and ethical responsibilities.

- **Collaboration and Partnerships:**

The college actively collaborates and establish linkages and MOUs with National, International, Governmental, Industrial and other Institutional establishments in the areas of engineering education, research and extension services

- **Accessibility:**

The college is committed to accessibility for all students and barrier free environment, with wheelchair-accessible facilities in all its buildings.

Every academic year activity an action plan is framed by all the Departments, Cells and committees based on the goals of the Institution.

As per the UGC guidelines, every higher education institution should have an Institutional Development Plan (IDP). According to the guidelines, Indian higher education must elevate its commitment to quality to a significantly higher level, implementing measures to achieve, demonstrate, and ensure sustainable quality. The challenges and demands arising both domestically and internationally within the context of higher education's globalization necessitate a robust and coordinated response.

The dedication of all stakeholders engaged in generating, exploring, sharing, connecting, and applying knowledge bodes well for fostering a genuinely Indian approach to enhance the quality and ensuring quality assurance within our higher education ecosystems. Enabling the Higher Educational Institutions (HEI) to undertake the Academic and Professional Excellence journey in

pursuance of Higher level goals set in line with the vision of, National Education Policy (NEP) 2020, Sustainable Development Goals (SDGs), National Credit Framework (NCrF) and Integration with Academic Bank of Credits (ABC).

Institutional preparedness for NEP

In view to NEP – 2020, Mar Ephraem College of Engineering and Technology has taken various measures and initiated different steps for the effective implementation at the institutional level. The faculty members including the college authority has been participating in different workshops and awareness programs on NEP-2020 organized by various institutions to have an idea on the features and significance of NEP-2020. All the faculty members were given awareness on Academic Bank of Credits (ABC).

Mar Ephraem, with its utmost alacrity, promulgates multidisciplinary and interdisciplinary paradigms. By enabling this, students are moulded into problem solvers. The institution relentlessly nurtures them to disentangle problems via multifaceted approaches, thus catalysing ingenuity. It boosts students; self confidence so they can face life challenges confidently and courageously.

Strength, Weakness, Opportunity and Challenges (SWOC)

Institutional Strength

- ❖ Mar Ephraem is a DST FIST Supported Institution through which we have established ample infrastructure for Research & Development and Production in the thrust areas of Agricultural Technology, Automation and Manufacturing Technology.
- ❖ Mar Ephraem's three undergraduate programs are accredited to NBA and few more programs are in pipeline.
- ❖ The incubation forums in the campus enable the student to think in the entrepreneurial perspective.
- ❖ The strong research culture in the campus which have attracted more than six crores worth inter disciplinary projects.
- ❖ Active involvement in community based projects and delving on the problems of the community and solving them.
- ❖ Dedicated placement and training cell which ensures the skill development and placements of the students. We have attained 93% placement in the last year.
- ❖ Dedicated Fabrication Lab and Maker Space for moulding the prototype of the students in to a product. Also, Mar Ephraem has NewGen IEDC program through which innovative projects are provided with seed fund support.
- ❖ Mar Ephraem is bestowed with dedicated faculty in diverse domains and highly supportive management.
- ❖ A transparent and systematic functioning of the management.

- ❖ Mar Ephraem focuses on Outcome Based Education which is attainable through ICT Enabled Classrooms, Innovative Projects. Industry gap identification and filling the gap through technical seminars, guest lectures and value added courses.
- ❖ A conducive learning environment in a serene, clean and green campus.
- ❖ Facilities for extra curricular and co-curricular activities.
- ❖ Regular MoUs and association with industry and other academic institutions for placements and training.
- ❖ Adequate infrastructure for product development activities and entrepreneurship activities.

Institutional Weakness

- ❖ Constrain in designing the curriculum as we are affiliated to Anna University. However, we tend to bridge the gap through Value added courses, Bridge course and akin.
- ❖ Limited Industry sponsored laboratories in the campus. However, we tend to be linked with several industries for tackling this problem.
- ❖ Location of Mar Ephraem is in a Rural Area which abstains us from reaching international tie ups.

Institutional Opportunity

- ❖ Acquiring the Autonomous Status and then deemed to be the University status.
- ❖ With interdisciplinary research culture, Mar Ephraem has the potential to attract surplus funds from research agencies for conducting advanced research in diverse areas.
- ❖ Presence of incubation centres in the campus provide opportunities for development of Startups.
- ❖ With MoUs signed paves the way for internships, training and placement by Tier1 and Tier II companies.
- ❖ Design and development of e-content for platforms like SWAYAM.
- ❖ Leveraging Alumni Strength.
- ❖ Avenues for developoing product related to Community Challenges.

Institutional Challenge

- ❖ Being from rural region, entry to international exposure is a challenge.
- ❖ Advancement of technologies and competing with the requirement of the industry
- ❖ The employment for students is fluctuating and not evenly distributed.

Institutional Development Plan (2025-35)

As an initial step for implementation of the NEP 2020, our institute has prepared the Institutional Development Plan (IDP) in consultation with all the stakeholders. This IDP includes the goals of the institute devised in line with the goals of NEP 2020 and a time bound action plan for

implementation of the various components such as Physical, Digital, Academic, Research & Development and Supportive Facilitative Infrastructure.

Physical Infrastructure

Short term (2025-2030)

1. Renovation and modernization of existing classrooms and laboratories to create a conducive learning environment for students.
2. Upgradation of library facilities with the latest books, journals and online resources.
3. To bring entire campus area under CCTV surveillance.
4. Improve facilities such as student common rooms and recreational spaces.
5. Construct additional buildings to accommodate increase in student enrollment and academic programs.
6. Implementation of sustainable energy solutions such as solar energy harvesting systems.

Long term (2025-2035)

1. Development of a research and innovation center to promote interdisciplinary research and collaboration among faculty and students.
2. Continuous monitoring and evaluation of the physical infrastructure to ensure that it meets the evolving needs of the college.
3. Establishment of TBI to help and support new age entrepreneurs and young minds to transform their innovative ideas into viable business propositions.

Digital Infrastructure

Short Term (2025-2030)

1. Enhance the college's Wi-Fi network to ensure seamless connectivity for students and staff.
2. Introduce virtual classrooms for remote learning and hybrid teaching models.
3. Establish digital library with access to e-books, journals, and research databases.
4. Integrate technology into various aspects of college administration, including admissions, fee payments, and student records.

Long Term (2025-2035)

1. Establish partnerships with industry leaders for internships, research collaborations and placements.
2. Continuously update and upgrade the college's digital infrastructure to stay current with technological advancements and best practices.

Academics

Short Term (2025-2030)

1. Working towards enhancing the standards obtaining better grades in national accreditations and rankings such as NAAC, NBA, NIRF and so on in order to enhance the college's reputation and credibility, validating its commitment to academic excellence and quality assurance.
2. The college has planned to achieve the autonomous status, allowing it to design and implement curricula responsive to emerging trends and technological advancements
3. Conduct a regular comprehensive review of existing academic programs to align them with industry trends, societal needs, and emerging research areas, ensuring significance and quality.
4. Conduct and organize new programs and value added courses to meet the evolving needs of students and industries.
5. Implement sustainability initiatives across campus, including energy-efficient practices and waste reduction strategies, aligning with SDG's.
6. Establish strategic partnerships with industries and organizations to facilitate internships, projects, and collaborative research initiatives, providing students with real-world experiences and enhancing their employability.
7. Enhance student support services such as counseling and career guidance.
8. Integrate modern technology into classrooms and learning spaces to enhance teaching and learning experiences.
9. Strengthen community engagement initiatives by actively collaborating with local communities, government agencies, and non-profit organizations to address societal challenges, promote social responsibility, and contribute to sustainable development.

Long Term (2025-2035)

1. Continuously upgrade and modernize academic infrastructure to meet evolving needs and technological advancements, ensuring a conducive learning environment for all stakeholders.
2. Collaborate with international universities for student exchange programs and joint research projects.
3. Create a digital archive for academic research, publications, and intellectual property.
4. Establish lifelong learning programs and alumni networks to support ongoing professional development and networking opportunities for graduates, fostering a sense of belonging and loyalty to the institution.

Research and Development.

Short Term (2025-2030)

1. Enhance support for faculty research through grants, workshops, and access to research facilities.
2. Organize seminars, workshops and conferences to foster a research culture within the college.
3. Establish research clusters in key areas of expertise to facilitate focused research efforts.
4. Increase research output and productivity through targeted funding opportunities and grants.
5. Enhance research facilities and infrastructure to support diverse research endeavors.
6. Foster partnerships with industry, government agencies, and other academic institutions to facilitate collaborative research projects.
7. Upgrade laboratory facilities, equipment, and software to support cutting-edge research in various disciplines.

Long Term (2025-2035)

1. Expand research partnerships with industry, government agencies, and non-profit organizations.
2. Increase research funding through external grants, endowments, and partnerships.

3. Foster a culture of innovation and entrepreneurship by supporting research commercialization and technology transfer and create an innovation ecosystem that supports entrepreneurship, startups, and technology transfer initiatives.
4. Establish a innovation hub to nurture and support research-driven startups and projects
5. Cultivate a vibrant research culture by promoting a spirit of inquiry, innovation, and continuous learning among faculty and students.

Supportive and Facilitative Infrastructure.

Short Term (2025-2030)

1. Implement modern digital learning technologies and tools to enhance teaching and learning experiences.
2. Enhance the sports and recreational facilities on campus to promote physical fitness and well-being.
3. Improve physical accessibility of campus facilities for individuals with disabilities through infrastructure upgrades and accommodations.
4. Implement sustainability initiatives such as energy efficiency measures, waste reduction programs, and green building practices.
5. Strengthen relationship with the local community through outreach programs, cultural events, and collaborative projects

Long-Term (2025-2035)

1. Expand the college's academic offerings to include new programs and courses that align with industry demands and student interests.
2. Establish an endowment fund to support scholarships, research grants, and other initiatives that benefit students and faculty.
3. Enhance the college's reputation and visibility through marketing and brand building.
4. Develop a strategic plan for sustainable growth and development that aligns with the college's mission and vision.
5. Continuously evaluate and improve the college's infrastructure and facilities to ensure a conducive learning environment for all stakeholders.

6. Maintain a culture of continuous improvement through regular feedback mechanisms, performance evaluations, and stakeholder engagement.

Mar Ephraem College of Engineering and Technology is committed to the holistic development of the students. The college aims to create a strong internal system for supporting diverse student associates in academic and social domains. The Institutional Development Plan will help to guide and plan to achieve this goal.