



MUTHAYAMMAL ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi, Accredited by NAAC & Affiliated to Anna University)

Rasipuram - 637 408, Namakkal Dist., Tamil Nadu



Strategic Plan for 2021-26



I. About MEC

Muthayammal Engineering College, an Autonomous Institution affiliated to Anna University, Chennai, was established in the year 2000 under the aegis of Muthayammal Educational Trust and Research Foundation with the motto to uplift the rural community through Technical Education. Shri R Kandasamy, Chairman a great Philanthropist and Entrepreneur who dedicates himself for the Rural Upliftment. He aims in taking the Institute at par with the International Institutions. Dr.K.Gunasekaran, Secretary an Energetic Engineer has a wonderful vision to promote the Institution in all possible ways. Being bestowed with monumental responsibility of leading the rich heritage, he involves himself in grooming the Young Engineers with Quality Education.

The College has grown as a reputed Institution in the past 21 Years and progressing with the aim to become Centre of Excellence in Engineering Education, Research and Development. At present, 12 Undergraduate and 6 Postgraduate Programmes are offered by the Institution. Based on the quality of Teaching - Learning Process, Research Contributions and Placement Records, the Institution is accredited by NAAC and the Undergraduate Programmes are accredited by NBA. Anna University has also recognized four Departments as Research Centres to conduct Ph.D./M.S. (By Research). The college is granted 12(b) and 2(f) status by UGC. Anna University, Chennai has also granted Permanent Affiliation for 10 Programmes.

Vision

To be a Centre of Excellence in Engineering, Technology and Management on par with International Standards.

Mission

- To prepare the students with high professional skills and ethical values
- To impart knowledge through best practices
- To instil a spirit of innovation through Training, Research and Development
- To undertake continuous assessment and remedial measures
- To achieve academic excellence through intellectual, emotional and social stimulation

Quality Policy

Muthayammal Engineering College is committed to provide value based education to the student enabling them to excel in the field of Engineering & Technology and Management through.

- Involvement of every individual at all levels
- Enhancing the competency of the faculty with innovative teaching learning practices
- Inculcating moral and ethical values among the students and staff
- Maintaining the State- of -the art infrastructure and academic standards

Core Values

- Professionalism
- Commitment
- Integrity
- Team Work
- Innovation
- Lifelong Learning

II. Review of Strategic Plan (2016-21)

1. Institution Awards/Recognitions

- **AICTE Idea Lab** - Muthayammal Engineering College is proud to be one among the 49 Institutions identified in India for establishing the AICTE IDEA Lab. The project cost for establishing the IDEA Lab at Muthayammal Engineering College is 1.32 Cr. It is great to note that only 5 Institutions are identified in Tamil Nadu to establish the Lab with the financial support of AICTE.
- Institutions Innovation Council 3.0 (2020-21) Annual Performance College and Stand alone Institution Category – Four Star Rating from Ministry of Education, Government of India
- Best Industrial Interface College Award of the Year Award - ISIEINDIA Excellence Award 2021
- Best Educational Campus in South India for Academic Facilities and Learning Resources by Asia Pacific Education & Technology Awards (APETA) 2020
- Best Division Award 2020 by The Institution of Engineers (India)
- Partner of the Decade Award by ICT Academy in 2020

- The Institutions of Engineers (India) - IEI Best Division Award 2020
- Top-10 Performing Institution in the National Level Intercollegiate RPA Skillathon 2020 hosted by GUVI in association with UiPath Academic Alliance
- Best Private College in Tamil Nadu 2019 – Award by Centre for Education Growth and Research (CEGR) for Outstanding Contribution to Education, Skill and Research
- 18th Rank in B and C Category in Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020
- Participated in NIRF 2020
- INDIA TODAY-MDRA – Overall Ranking :182
- GHRDC-CSR Engineering College / Institute Survey 2021 – 28th Position in Tamil Nadu
- DQ-CMR Best Tech Schools Survey 2021- Top 100 T-Schools (overall) Government and Private Sector -56 Position
- THE WEEK – Hansa Research – Engineering College Survey 2021- Private Category Ranking: 183, South Zone: 90th Position
- Careers360 Engineering Ranking 2021- AAA Category in Tamil Nadu
- Times Engineering Survey 2021- Overall Ranking :123th Position
- ICTACT Academic Partner Award 2017
- Assocham India Excellence Award 2017
- Best Engineering Colleges of India 2016
- Asia Pacific Education Survival & Awards 2016

2. New Programmes Introduced

Academic Year (2018 -19)

S.No.	Programme/Course	Programme Specialization
1	B.Tech	Chemical Engineering
2	B.Tech	Bio Technology
3	B.E	Medical Electronics
4	B.E	BioMedical Engineering

Academic Year (2020 -21)

S.No.	Programme/Course	Programme Specialization
1.	B.Tech	Artificial Intelligence and Data Science
2.	B.E	Cyber Security
3.	B.E	Mechatronics Engineering
4.	B.E	Robotics and Automation

3. Faculty Achievements and Recognitions

- Ph.D's in the Department : 87
- Faculty Members Pursuing Ph.D. : 33
- Faculty Publications in Journals and Conferences :1193
- Patents Filed/Published by Faculty Members : 113
- Faculty Members Participation in FDP,STTPs, Seminars, Workshops,etc. : 2225
- Industry-Institute Interaction by Faculty Members : 140
- Books/Chapters by Faculty Members : 77
- NIT/IIT/NITTTR Certificates obtained: 655
- Online Certificates (NPTEL, Coursera, Udemy, etc.): 6247
- Faculty Guest Talk: 162
- 218 MultiDisciplinary Lectures (MuDiL) delivered by Faculty Members
- 292 +Teacher's Associated Seminar Towards Excellence (TASTE)
- 261 (Online Mode) Faculty Members interacted with the Academicians of IITs/NITs, Universities and Renowned Institutions for Academic and Research Collaborations.
- MoU's Signed with
 - Siemens Centre of Excellence, NIT, Trichy
 - Thakur College of Engineering and Technology, Mumbai
 - Vignan's Institute of Information Technology, Visakhapatnam
 - NITTTR, Chennai

- 114 Awards and Recognitions received from various Professional Societies and Organizations

4. Teaching -Learning: Academic Excellence

- Enhanced Students Knowledge in Emerging Technologies,50 Technology Learning Groups have been formed with 947 Students in 2019-20,1326 Students enrolled in 2020-21.
- 12984 Students benefitted through MultiDisciplinary Lectures (MuDiL)
- Students are encouraged to deliver talks to their Peer Groups to improve their Presentation and Technical Skills. With this prime motto, the Students are given opportunity to choose a topic and prepare for presentation. 525+ Student TechTalks (ST2) were presented by Students
- Subject Knowledge is augmented and enhanced by Must Know Concepts (MKC)
- ICT Enabled Classrooms, Seminar Halls, Computer Centers, Library and Information Center and other Amenities are renovated with adequate Facilities
- 72 Courses focused on Employability/ Entrepreneurship/ Skill Development are introduced in the Curriculum
- Credit Transfer for Online Certification is implemented in the Autonomous System. The Students are encouraged to register for NPTEL/MOOC Courses. The credits earned are transferred for Curriculum Courses.
- Quality of Teaching – Learning has enhanced through TASTE, MuDiL, Faculty Visit to Industries/Institutions, Faculty Guest Talk Faculty Recharge Program and Faculty Support for Student Activities
- Muthayammal Virtual Learning Centre (MVLC)-Lectures by Faculty Members and other important Video Contents are maintained in MVLC for effective use by Students and Faculty Members.
- 328+ Field Projects / Internships undertaken by the Students
- 6554+Students participated in various activities like Seminars, Workshops, Webinars, Conferences, etc.
- 1805 Ideas received from Students and 289 Ideas are Selected
- 649+ NPTEL Certificates by Students
- 1504 Industrial Certifications

- 2351+ Students received certificates for Value Addition/ Skill Development Course
- 333+ Lectures delivered by National and International Experts

- **Significant Awards and Recognitions by Students**

- **Smart India Hackathon**

- First Prize with Cash Award of Rs.1,00,000 at National Level Project Contest 2018
 - Second Prize with Cash Award of INR 75,000 at National Level Project Contest 2017
 - Tamilnadu Innovations Grand Challenge - First Prize with Cash Award of Rs.1,00,000
 - Skillathon by UiPath secured 4th place in the National Level
 - Best Student Award 2019 – The Institution of Engineers (India)
 - Best Project presentation Award 2020
 - All India Student Award 2018 - The Institution of Engineers (India)
- Alumni interaction and Student Mentoring is focused to share his/her experience and expectations by the Industry through Lectures, Interaction and Mentoring
- **Students Industry Projects**

Every year more than 25% of the Student Projects are done with the technical guidance of the Industry Experts. 45 Industry Projects have been done by the 2020 Passed out batch students and 40 Projects are supported through online by the Industry Experts for the 2021 Batch students.

5. Research and Consultancy

- **Memorandum of Understanding (MoU)**

Institution has signed MoU with 30 Industries for various activities including the Visits by Students and Faculty Members for Discussions, Consultancy Work and Student Projects. The Internship, Summer Inplant Training and Expert TechTalks are provided.

- **Consultancy Projects for the Industries**

The Faculty Members submit the proposals to provide the solutions for the Industries after the discussion. In the past three years 40 Lakhs have been received as Consultancy Fees from the Industries for more than 20 Projects.

➤ **Industry Connect for Academic Activities**

The Industry Experts are involved in

- Curriculum Development
- Board of Studies
- Student Project Evaluation
- Development of Industry Linked Laboratories
- Technical Training
- Value Addition of Courses
- Technical Talks

➤ **Industry Linked Laboratories**

The identified Labs are linked with Industries to enhance the facilities and the collaboration with Experts. The result has shown better utilization in the academic activities as well as the Consultancy Projects.

➤ **Entrepreneur and Start-ups**

The Industry Experts also guide the students to excel in idea generation and the incubation of ideas for developing the products in the future. More than 10 Start-ups have been registered by the students.

- 04 Incubation Centre established
- 09 Industry Supported Laboratories

6. Quality Assurance & Sustainability

- Quality Parameters and Benchmarks for the Academic and Administrative Activities are developed
- Teaching, Research, Consultancy and support functions to all Stakeholders for Continuous Improvement is Emphasized
- Student Development Activities in both Co-Curricular and Extra-Curricular are strengthened
- Organized Workshops, Seminars, Expert Lectures, and Review meetings on Quality related themes for the Promotion of Quality
- Annual Quality Assurance Report (AQAR) as per Guidelines and parameters of NAAC is Submitted

- Invited External Experts for Audit to Review, Observation, Finding and Suggestion for Improvement
- Feedback collected and analyzed from all Stakeholders
- Implemented the Innovative Practices for Faculty and Students
- Strategic Plan and Procedure for the Audit is evaluated
- Conducted of Academic and Administrative Audit at regular Intervals to review the Progress
- Documented Audited Report and Activities for further Improvement
- Nine Centres has been initiated and various Programs organized for the Quality Enhancement
 - Centre for Research & Development
 - Technology Learning Centre
 - Centre for Product & Consultancy
 - Centre for Patent Drafting and Filing
 - Centre for Quality Assurance
 - Centre for Examinations
 - Centre for Innovation & Design Thinking/ My Idea Product
 - Centre for Brand Building & Ranking
 - Centre for Academic Administrative Audit

7. Students Career Progression & Higher Education

- Higher Education and Career Guidance Cell encouraged Students to study in India and Abroad. Organized various activities on Higher Studies and Competitive Examinations like CAT, MAT, GATE, GMAT, SAT, GRE, TOEFL and Civil Service Examinations.
- Students opted for Higher Studies in India and Foreign Universities : 47

➤ Placement Status

Academic Year	Students Opted for Placement	Students Placed	No. of Companies Visited	% of Placement
2020-21	335	266*	23	79.42
2019-20	411	357	20	87
2018-19	349	295	25	85
2017-18	402	334	28	83
2016-17	461	374	22	81

8. Library and Information Centre

➤ Library Learning Resources

• Total Number of Volumes	: 59318
• Total Number of Titles	: 14981
• Total Number of International Journals	: 132
• Total Number of National Journals	: 132
• Total Number of E-Journals	: 19127
• Total Number of E-Books	: 10000
• Total Number of International Magazines	: 20
• Total Number of National Magazines	: 40
• Total System with Internet Connectivity	: 15
• Server	: 1

➤ Self Learning Resources - E-Thesis, Patents and Open Courseware

- MIT Open Courseware
- Shodhgangna
- DART
- Corvinus
- PQDT Open, Durham
- MIT Theses
- Espacenet
- Google Patents
- inPASS,
- US Patent and Trademarks
- The lens
- Swayam
- Moodle
- Coursera
- EDX, Futurelearn
- E-Gyankosh
- E-Acharya
- Udemy

In addition to the Library Resources available the membership in various forums we also made to avail the facilities for the Students and Faculty Members. Membership includes,

- National Digital Library of India, (IIT Kharagpur)
- INDEST, New Delhi
- DELNET, New Delhi
- IEEE, USA
- J-GATE - Science and Technology, Bangalore
- J-GATE - Social Science and Humanities, Bangalore
- DELNET- Proquest, New Delhi
- SAGE Publications, New Delhi
- Digital Information Research Foundation, Chennai
- Inventi Journals, New Delhi
- Indianjournals.com ,New Delhi
- Institution of Engineers, Kolkata,
- Springer Nature India private Ltd, New Delhi ,
- CMTI, Bangalore,
- TERI, New Delhi,
- The CPRI, Bangalore,
- NISCAIR, New Delhi and
- Indian Academy of Science, Bangalore ,
- The Institute of Indian Foundry men ,Kolkata,
- Indian Society for Training and Development, New Delhi,
- SAGE Publications, New Delhi,
- Indian Institute of Materials Management , Kolkata,
- Wolter Kluver India Pvt Ltd, Mumbai,
- The National Medical Journal of India, New Delhi,
- Indian Chemical Society Kolkata,
- DESIDOC, Delhi,
- Indian Roads Congress, New Delhi,
- Electronic Industries Association of India , New Delhi
- Society for Environmental Communication, New Delhi etc.

➤ **Additional Facilities for Students Accessibility**

- Computerization Library through Dolphin Software (Impress) and Dspace
- E-Gate Register for Scanning Student Entry
- Books arrangement Department wise and Subject wise through DDC
- Journals and Magazines Display Subject wise
- OPAC – by these students can search Author, Title, Publisher, Edition, Book location, Year of publication, ISBN Etc.
- Competitive Exam Books, GRE, TOEFL, GATE, UPSC, SSC, GMAT, CAT Etc
- ILL (Interlibrary Loan from DELNET, American Library Centre, British Council Library)
- Digital Library with 1949 CDs
- Books Circulation with Bar-Coding Scanning for saving the time of the students
- Lift Facility for Physically Challenged

➤ **Support to Students for Self Learning Activities**

- Workshop/Seminar/Lectures
 - Subject Tutorials Video in the Digital Library
 - Library Orientation for First Year
 - Reference Service
 - Digital Library Service
 - Book Bank for SC/ST Students
 - Document Procurement Service
 - Reprographic Service
 - Back Volumes Reference
 - Projects/Theses Reference
 - CD/DVD issue
- Institution Best Practices and Distinctiveness are implemented
- Solar Power Generation System of 50 KVA capacity is installed in the Campus
- 24x7 CCTV are installed in the Campus for Safety purpose

- Swachh Bharat is being followed in our Institution. Collection of the wastes such as Paper, Material Waste ,e-Waste etc ., for recycling. Rainwater Harvesting is an important initiative taken to save rain water.
- Women Empowerment Cell: Members are actively work for the Welfare of the Female Students by conducting Guest Lectures, Seminars and Awareness Programs, etc.
- Yoga and Meditation Club: It promotes uniqueness within the students and integrates moral values and self-acceptance through awareness programs.
- In addition, Students are members in various Clubs and Forums like Green Club and Sports Club, etc.
- As part of the Community Engagement NSS has organized various Activities like Awareness Program to Save Rain Water, Campus Cleaning through Swachh Bharat Abhiyan, Digital India Awareness, Fit India Movement Pledge, Free Dental Camp, Awareness Program for COVID-19,etc.

Procedure adopted for conducting the SWOC Analysis and Participation of the Stakeholders

- SWOC Analysis was carried out by involving all Stakeholders such as Management, Faculty, Supporting Staff, Students, Parents, Alumni and Representatives of Employers
- Meetings were conducted with the HoDs and Senior FacultyMembers to discuss on the data submitted on strengthening the Institutional Infrastructure
- Assessments were made on the additional academic inputs to be provided to the privileged students
- Departments submitted their Departmental Development Plans to the Principal's Office
- Principal's Office consolidated the SWOC and the action plan received from the Departments
- Strategic Plan was placed before the Governing Council for consideration and Approval

Factors considered for SWOC Analysis

- Existing Infrastructure of the Institute including Buildings, Laboratories,Equipments, Workshops, Library, Connectivity, Transport, Furniture, Hostels, Medical Facilities, Sports Facilities ,Canteen and other Facilities

- Fee Structure, Admission Policies of the Government including Reservations, Requirements of the Affiliating University-AnnaUniversity / AICTE / UGC
- Outcome Based Curriculum Development and Teaching and Learning Processes
- Additional Academic support for slow learners to improve their performance in the Examination
- Employability Opportunities
- Training needs of Faculty/Technical Staff/Supporting Staff
- Research, Consultancy and IPR
- Industry Institute Interaction

III. Strategic Plan for 2021-26

Muthayammal Engineering College was conferred Autonomous Status from the Academic Year 2016-17. The focus on Institutional Development has been changed and the Strategic Plan for 2021-26 has been prepared by analyzing the Strength, Weakness, Opportunities, Challenges (SWOC) of the Institute. The Management, Principal, Deans, HoDs and Stakeholders of the Institute had several interactions and arrived at the tentative Institutional Level SWOC Analysis. This Institutional Level SWOC Analysis has been reviewed along with the Department Level SWOC Analysis to arrive at a consolidated Institute - Level Analysis. This was discussed with all the Faculty Members, Staff and Students to finalize the Strengths, Weaknesses, Opportunities and Challenges of the Institution.

The Institution has the following Strategic Plans

- Institutional Holistic Development
- Infrastructure Development
- Faculty Resources
- Teaching –Learning for Academic Excellence
- Emphasizing on Flipped Class Room Concepts
- Examination Evaluation and Reforms
- Research and Consultancy
- Student Career Development & Higher Education
- Alumni Interaction for Internship and Entrepreneurship

- Quality Assurance & Sustainability
- Library and Information Centre

Institutional Holistic Development

- To be within Top 10 Ranks among all Engineering Colleges in Tamil Nadu
- To get all eligible UG Programs Accredited by NBA under Tier-I
- To be Accredited as NAAC A++ College
- To march towards University Status
- To achieve 100% Placement for all Eligible Students
- To focus on National/International Institution Awards & Ranking
- To focus on Global Brand Building
- To introduce New UG & PG Programs based on Industry requirement & demands
- To avail the Faculty experience from Premier Institution / Industry in Futuristic Area
- To initiate Industry Oriented / Continuing Education Programmes
- To release International Journal in Engineering & Technology
- To support Staff and Students with Welfare and Healthcare Schemes
- To promote Gender Equality Activities in the Institution
- To build awareness among Students , Faculty and Organize National Level activities on Environmental Safety, Energy Conservation and Universal Human Values
- To increase Internal Revenue growth for sustainability
- To sign MOU's with National / International Universities
- To focus more on Technology Learning
- To offer UGC / AICTE Scales Rewards & Recognitions
- To Foster Social responsibility in Higher Education for Holistic Development

Infrastructure Development

- To implement Idea to Product Development Centre
- To enhance Audio Visual Centre for E-Content Development
- To enhance the Class Rooms with ICT Facilities
- To upgrade Library & Information Centre
- To strengthen Wide Area Network connectivity

- To enhance the General Amenities
- To enhance E-governance for the Academic & Administrative Process
- To establish Open Air Theatre in the Campus
- To initiate Township / Quarters Facility

Faculty Resources

- To increase the Quality of Research Publications in Referred Journals
- To Publish Books & Chapters with National and International Publishers
- To motivate Faculty Members for Awards & Recognitions from various Reputed Organizations
- To encourage Faculty Members for Patent Filing/Granting
- To provide Development Program for Supporting Staff
- To encourage Faculty Visits to Industry / Academia for Collaboration
- To develop Faculty to meet Emerging Academic and Employability Challenges
- To depute Faculty Members for National / International Fellowships for Advanced Studies / Ph .D Programmes
- To impart Faculty Members to participate in various Academic and Professional activities for better visibility
- To facilitate Faculty Exchange Programmes

Teaching -Learning: Academic Excellence

- To enhance ICT Tools for Effective Teaching – Learning
- To revise the curriculum for UG & PG Programmes periodically with a focus on Employability,Entrepreneurship and Skill Development
- To introduce Multi & Inter disciplinary Programmes in areas of Emerging Technology
- To encourage students for National/International Awards and Recognitions
- To emerge as the highly respected Technology focused Learning Institution

Examination Evaluation and Reforms

- To ensure Student Performance & Learning Outcomes
- To arrange Remedial Classes for Slow Learners
- Credit Transfer System for Online Certification Courses

- To focus Programmes/Courses on Employability/Entrepreneurship Skill Development through Industry Associations
- To update the Evaluation Process as per the Curriculum Requirement

Research and Consultancy

- Nurturing Startups and Entrepreneurial Eco System through Incubation
- To get adequate number of full time Ph.D Students for enhancing Research Outcomes
- To establish MEC as a strong provider of Consultancy and Training Services
- To strengthen the Innovations and Intellectual Property Rights
- To reinforce the existing MoU's by increasing the Collaborative activities
- To improve the Infrastructure for Research activities
- To focus more on increasing the Funded Research Projects
- To establish Linkages with the Premier National and Global Industries

Student Career Development & Higher Education

- To motivate the Students in Emerging Technologies to become Competent
- To create Awareness and Guidance for Entrepreneurship Development
- To support for Internships, Industrial Visits and Inplant Training with Premier Institutions
- To invite Experts for Guest Lecture/TechTalk from reputed Institutions/Industries
- To strengthen the Training and Placement activities for Career Development
- To encourage Students for Higher Studies in Foreign Universities, IIT's & NIT's,etc.,
- To initiate Student Exchange Programs with Foreign & Indian Universities/ Institutions for exploring Internships
- To encourage the Innovative Ideas of students to Design Products
- To organize Capability Enhancement / Development Programs
- To provide Psychological Counseling and Yoga & Meditation

Alumni Interaction

- To organize regular Alumni Interactions & Meetings

- To initiate Alumni Chapter
- To strengthen Alumni Network through Alumni Association
- To explore Alumni Contribution / Endowment Partnering
- To increase Social Media presence of MEC Alumni on Facebook , LinkedIn , Twitter
- To improve the involvement of Alumni's in Placement Activities

Quality Assurance & Sustainability

- To establish Quality Policy for Improvement
- To develop Quality Parameters and Benchmarks for the Academic and Administrative Activities
- To ensure Participation of all Stakeholders in Quality Enhancement Process
- To form a Committee for effective functioning of the Quality Assurance System
- To evolve Strategies and Procedures for conducting the Internal and External Audit
- To invite External Experts to Review, Observation and Suggestion for Quality Improvement
- To promote Institution Best Practices and Distinctiveness

Library and Information Centre

- To enhance a Repository of Learning Resources in the Central Library
- To equip the Library with Automated System Management for Books & Journals Transaction
- To establish Cloud based e-Library & Online Access
- To upgrade Library Infrastructure

The Strategic Plan for the Period 2021-26 will be implemented meticulously by involving all the Stakeholders with regular reviews and approval by the Academic and Governing Council.



[Handwritten Signature]
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