MAHALINGAM

Academy of Higher Education and Research

Detailed Project Report

Submitted to UGC

for Grant of Deemed to be University
(General Category) Status under
Sec. 3, UGC act of 1956

Dr. MAHALINGAM MCET
COLLEGE OF ENGINEERING AND TECHNOLOGY
Enlightening Technical Minds

Pollachi, Tamil Nadu

October 2024

PHILOSOPHY

“A Nation’s wealth not only depends upon its water, land and mineral resources; but also, its people’s imperishable Knowledge and Skill”

Arutchelvar Dr. N. Mahalingam

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Preamble

Since the founding of the University of Bologna in 1088, higher education has undergone many evolutions, yet much has remained consistent. Globalization has expanded the scope of learning through the cross-cultural exchange of ideas, emerging technologies have opened countless areas of research, the range of academic degrees has proliferated, and access to education has, overall, increased. Though modern universities have adapted and evolved to their present state, they currently face a widening range of disruptions brought on by our transforming, globalized world.

(a) The climate crisis in particular and sustainability more broadly are urgent issues. This has led many universities to put their missions in education, research, innovation and culture into the service of achieving the United Nations Sustainable Development Goals, (b) Technological developments are changing lives and disrupting labour markets. The challenge of creating decent human-centred work is about to get much harder as Artificial Intelligence (AI), automation and structural transformations remake employment landscapes around the globe, and (c) Persisting social disparities and demographic changes put social systems under pressure. This makes lifelong learning, access, equity and inclusion key concerns for universities. Each of these emerging disruptions has significant implications for education and impact what universities do. The global education development agenda reflected in the Goal 4 (SDG4) of the 2030 Agenda for Sustainable Development, adopted by India in 2015 - seeks to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” by 2030.

In India, the Prime Minister, Shri Narendra Modi launched ‘Viksit Bharat @2047: Voice of Youth’ via video conferencing on December 11,2023. The

Viksit Bharat @2047 is the vision to make India a developed nation by 2047, the 100th year of independence. The vision encompasses various aspects of development, including economic growth, social progress, environmental sustainability, and good governance. The project aims to make India a global leader in innovation and technology, a model of human development and social welfare, and a champion of environmental sustainability.

The major objectives of the project are:

• Achieving a USD 30 trillion economy with a per-capita income of USD 18,000-20,000 and strong public finances and a robust financial sector.

• Developing 3-4 global champions in every sector by merger or restructuring and boosting indigenous industry and innovation.

• Partnering with foreign R&D organizations to build top 10 labs in the country and bringing at least 10 Indian institutions among the top 100 globally.

The role of universities in 'Viksit Bharat @2047' and the need for strong education and research growth is emphasized. There is a need for educators, students, and policymakers to work together to create a dynamic and responsive education system that equips individuals with the knowledge, skills, and competencies necessary to thrive in a rapidly changing world.

The National Education Policy 2020 of Government of India, in addition to spelling out the foundation philosophy, also identified the major issues the higher education institutes to address: less emphasis on the development of cognitive skills and learning outcomes; a rigid separation of disciplines, limited teacher and institutional autonomy; lesser emphasis on research at most universities and colleges, and suboptimal governance and leadership. The policy envisions a complete overhaul and re-energising of the higher education system to overcome these challenges and thereby deliver high-quality higher education, with equity and inclusion.

Understanding the challenges of major disruptions happening around the world, the efforts needed for the Indian Government's ambitious plan for Viksit Bharat@2047, and to overcome the gaps identified in the education system in NEP-2020, on the occasion of the birth centenary of its founder Chairman, the Nachimuthu Industrial Association (NIA) has taken a conscious decision to upgrade its flagship institute, the Dr. Mahalingam College of Engineering and Technology, to a degree awarding institutional status, with the freedom to design need based educational programs and to promote newer pedagogies that are demanded in the changing world. Taking guidelines from the NEP 2020, the proposed Deemed to be University shall attempt solutions to both national and international issues and also for issues faced by the higher education system itself. It is visioned to be an institute of eminence in education, research, and outreach for improving quality of life globally. The NIA has committed adequate resources to establish the university. In addition, the industrial house has also committed the technical manpower of self and its partners in the promotion of experiential learning and society-focused research, in the university proposed in the name of its founder Arutchelvar Dr. N. Mahalingam, a Padma Bhushan awardee! JAI HIND!

Mahalingam Academy of Higher Education and Reserach

1. Executive Summary

Dr. Mahalingam College of Engineering and Technology (MCET) was established in the year 1998, by the Nachimuthu Industrial Association (NIA), in the name of Padma Bhushan, veteran Gandhian, and a multifaceted personality Dr. N. Mahalingam. As the leader of the US$2.0 billion industrial conglomerate, the Sakthi Group of Industries, as a three-time MLA of Tamil Nadu state Assembly and one-time MP of Indian Parliament, Dr. N Mahalingam has played an important role in the economic development of the region. He was a visionary and has laid foundation for many institutions. His famous quote: “A nation’s wealth not only depends on its water, land and mineral resources but also upon its people’s imperishable Knowledge and skills”. He prophesied that the key to India becoming Superpower is the knowledge and innovative skills gained by the youth in the University classrooms. As an industrial leader he has supported interdisciplinary research and indigenous knowledge development in all possible ways. As a fitting tribute to the visionary leader, on the eve of his birth centenary, the NIA has taken a conscious decision to get the MCET a degree awarding status with the freedom to frame societal need-based curriculum and offer the same through innovative pedagogies. It is making this DPR as part of the application to get the Deemed to be University (DU) status for MCET.

True to the vision of Dr. N. Mahalingam, the DU is planned with a global outlook. It is visioned to be, “an institute of eminence in education, research, and outreach for improving quality of life globally”. The university mission paths are designed to contribute to global fraternity through world-class graduate, post graduate and research programs, structured to promote interdisciplinary and multidisciplinary approach, through partnerships with

institutions and corporates, through impactful research by promoting an ecosystem of experimentation, innovation and growth and by building state of art infrastructure, offering high quality services and amenities.

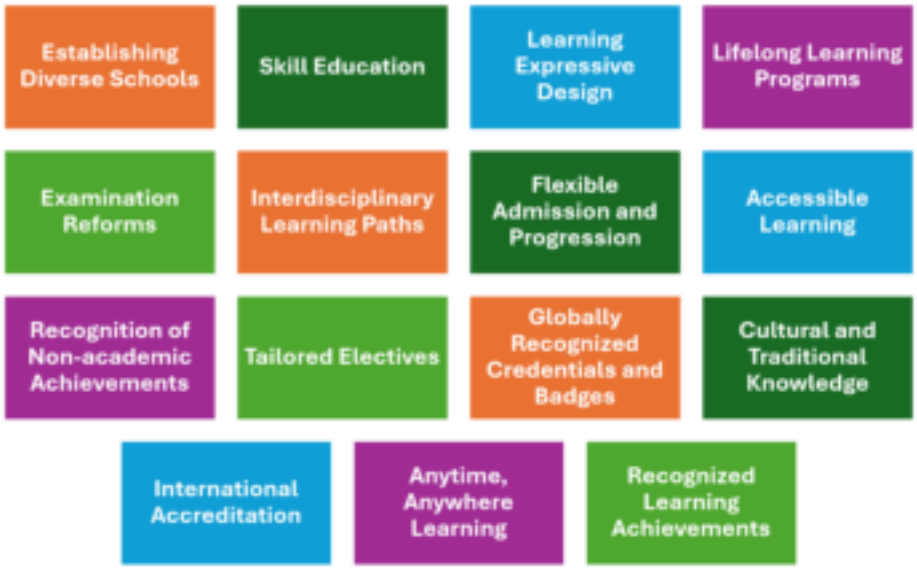
The globalized world today faces major disruptions each of which have significant implication on what universities do together in the future. The strategic plan of the University reviews the potential disruptions to clearly understand the risks and opportunities that are created from these changes, develop response strategies to differentiate, meet demand, and provide value in the ecosystem of the future and create a roadmap and implementation plan to prioritize and determine how and when the responses will be implemented.

The 15-year Perspective plan and the 5 year Rolling implementation plan embed plans to address major global disruptions, more importantly on developmental issues specific to India, and on university level issues related to teaching, research and funding. Specific efforts are made to overcome the gaps identified in the NEP-2020 of Government of India, in the higher education system. Efforts are also made to promote collaborative research and personalized and experiential learning among other innovative

educational practices. The plans are given under 11 priority areas (PA) covering all aspects of university planning, administration and management. Each PA has associated 15-year Strategy, Strategic Goals (for implementation in three phases), Action points and the proposed 5-Rolling Plan with implementation targets. A brief note on each priority area is advanced below.

Academic Plan:

MCET's educational philosophy, grounded in Outcome Based Education (OBE) and reflected in its Teaching Learning Centre (TLC), ensures rigorous alignment with Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs). In alignment with the National Education Policy 2020 (NEP 2020), MCET has adopted a Flexible Curriculum based on the AICTE model. This curriculum encourages skill development, creativity, innovation, and holistic growth among students. Product and system-based learning model implemented at MCET will pave the way for interdisciplinary learning experiences that are based on product development hence supporting the make in India theme.



The proposed Deemed to be University will consistently expand its portfolio of postgraduate and research programs, emphasizing multidisciplinary and

transdisciplinary approaches. It will achieve the above strategic goals shown in the figure in three phases.

The 5 year Rolling Plan of the DU aims at establishing five diverse schools aligned with emerging national and global trends to provide relevant, cutting-edge education and skills development. The courses shall be focused on employability/entrepreneurship/skill, development and embrace curriculum structures that enables the students to up skill in core verticals or interdisciplinary verticals. They integrate lab-based activities into the curriculum to enhance practical skills and real-world applications, ensuring students are job-ready as NSQF levels. Develop the teaching and learning process based on the CDIO (Conceive – Design – Implement – Operate) framework, incorporating Learning Experience Design principles to enhance educational outcomes. The plan sets target on individual aspects of academic planning.

Faculty Recruitment Plan:

The strategy is to attract and retain highly reputed human resources in diverse domains through appropriate mechanisms for compensation, welfare and career growth. It shall achieve nine strategic goals in faculty recruitment including recruitment of faculty of international repute, establish industrial chairs and establishing faculty development grant to support development of faculty competencies. It is planned for a faculty: student ratio of 1:10.

Admission Plan:

The planned strategy is to attract meritorious and needy students through scholarships and admit diverse learners and support personalized learning through customized educational experiences. The ten strategic goals of

students' admissions include, promoting gender diversity, special admission for transgender students, admissions for industry professionals, overseas students, promotion of diversity, multi-entry and multi-exit options, and admission in both the semesters.

Research Plan:

Over the past five years, the institute's faculty have published 916 research articles, including 116 books and chapters. Notably, 94 articles are in Q1 journals, and 51 have an impact factor above 3, with over 17,142 citations. The institute's h-index is 56. They received INR 3,01,25,892 in research grants and generated INR 1,40,11,614 from consultancy. They published 157 patents, with 39 granted. MCET completed 33 funded projects and has 4 ongoing projects worth INR 1,81,78,620. Seven departments are approved as research centres, with 142 PhD scholars and 45 supervisors. They invested INR 12,91,00,734 in research facilities and equipment.

The strategy for research is to Improve the research ecosystem through appropriate policy and conduct impactful multi and transdisciplinary research. The strategic initiatives in the research areas include the creation of Research centres, capacity-building programs to enhance research skills, promote a culture of innovation, provisioning world class research infrastructure, formation of Research Interest Groups, innovation hubs and Incubators. Apart from Indian funding agencies DST, DBT, CSIR, DRDO, MeiTY, ISRO, MNRE, BRNS etc., special attempts shall be made through international collaborations for attracting funding from Agencies like NSF, EU, NUFFIC, ODA, JSPS, KOICA, SIDA, DAAD, UNDP, UNAID and others. A full-fledged Dean (Research and Innovation) office with funding to support faculty with seed money to promote further research is already in place.

Information and Communication Technology Plan:

The ICT strategy of the University shall be to develop robust digital infrastructure to enhance learning experience, global connectivity and administrative efficiency. The strategic initiatives proposed to achieve this goal is to enhance campus facilities with modern computer centres, laboratories, smart classrooms, and advanced software resources to support innovative teaching and learning methodologies across diverse disciplines, provide robust backbone networking technology to ensure highly reliable data transmission in schools and universities, provide robust backbone networking technology to ensure highly reliable data transmission in schools and universities, utilize ICT to support government research programs in areas such as AI, Natural Language Processing, Cyber Security and Human-Computer Interaction, develop and implement an LMS that enables online teaching, blended learning, and course management, and develop an ERP system to automate processes in finance, human resources, admissions, academics and resource sharing.

Infrastructure Development Plan:

The Strategy for Infrastructure development of the University shall be to build eco-friendly and sustainable infrastructure to meet the evolving needs of stakeholders, whilst maintaining the existing. The strategic initiatives include promotion and building Green buildings of global standards for all kinds of uses including Administration, Academic and Research Hubs, Students and faculty accommodation, use of renewable energy in building, enhancement campus wide digital infrastructure to create a smart and sustainable campus, creation of smart transportation, sports and recreational facilities to accommodate international and Indian students and staff community and

waste recycling facilities to promote efficiency through recycling. The present total built-up area of 10,00,000 sq. ft. at MCET is planned to grow to 15,00,000 sq. ft. by the end of rolling plan period and to 20,00,000 sq. ft. by the end of strategic plan period.

Career Guidance and Placement Plan:

During the last five years, the eligible students were 685, 629, 736, 783 and 698 out of them respectively 485, 515, 661, 592 and 468 students were placed in companies. The salary offered ranged from 3 to 27 LPA.

The proposed University shall give a special focus on fulfilling the career ambitions of individual students. The Training and Placement section shall design training programs based on the skill sets of individuals and demand for skills from specific industries. The University shall have a strategy for Career Guidance and Placement to fulfil the career aspirations of learners through personalized career coaching, and collaboration with institutions, industries, and organizations across the globe. The strategic goals for career placement include: Global internships and placements, early talent Identification to offer targeted programs, MoUs with companies for collaborative education, entrepreneurship courses, start-up support and Make-in-India promotion and Entrepreneurial motivation. At the end of the five-year Rolling plan period the DU shall have 80 MoUs for internships, benefitting 680 students and conduct 20 courses on entrepreneurship and critical thinking and innovation to benefit 480 students.

Networking and Collaboration Plan:

The MCET is proud of active MoUs with corporates, organizations and universities impacting multiple facets of its growth and development. The

collaborative education program with M/S. TVS Motors - Hosur, Capgemini Engineering - India, NTT Data Services - India, Renault Nissan Technology Business Center India and L&T Defence - Coimbatore for talent development, with Zenken India, to prepare students in foreign languages, Japanese in this case, and with Cape Breton University - Canada for student higher studies and faculty research. The strategic goals for Networking and Collaboration include Corporate Collaboration, International Schemes, Collaborative Projects, National and global Presence and strategic initiatives include Strategic Partnerships, International Schemes, Collaborative Projects and Innovation, Consultancy Solutions for Industry Problems and Study Missions.

The University shall promote networking and collaborations that shall benefit a minimum of 30% of student population and minimum 50% of faculty and staff.

Alumni Engagement Plan:

Inaugurated on January 26, 2003, and registered under the Tamil Nadu Societies Registration Act, 1975, the MCET Alumni Association has been instrumental in promoting interaction and camaraderie among alumni, students, and the management. With 16728 alumni spread across seven chapters, managed by 30 office bearers MCET Alumni Association serves as a vital link between the institution and its alumni. Alumni voluntarily serve as resource persons for programs like the Student Talent Enhancement Program (STEP), STEP - Unleashing Potential (STEP-UP), Program Assessment Committee, Board of Studies, Higher Study Awareness Program, Mock Interviews, and Student Induction Programs.

The University strategy is to engage with alumni through awards and recognitions and leverage their expertise and socio-economic standing for the

growth of institution. The Alumni engagement programs designed to benefit 3000 students through 1000 Alumni. The alumni engagement includes: curriculum, course and content development, knowledge sharing workshops, external project guides, student's mentorship programs, and as Visiting/Adjunct faculty. A separate office is functioning under the direction of a professor to promote Alumni engagement.

Governance and Administration Plan:

In MCET, all the statutory bodies required for the successful operation of the autonomous college are constituted and perform the roles and responsibilities as prescribed by UGC. Effective governance has ensured continuous growth and effective navigation during challenging times such as COVID 19. There have been continuous strategic plans developed during regular periods and the same have been implemented with task forces to reach the intended outcomes. MCET also boasts of awards like the "Great Place to Work" which signifies the governance and administrative practices. It is also proud of the various welfare schemes implemented for the students and staff right from insurance to family benefit. The institution has employed several welfare measures for the benefit of teaching and non- teaching staff. Some welfare measures include: Staff Family Benefit Fund, Employees Co-op Thrift and Credit Society, and Accidental insurance schemes. Other welfare schemes include superannuation benefits of EPF, Family Pension Scheme, Employee State Insurance (ESI) implemented as per the respective acts. Gratuity scheme is accessible for staff who have completed 5 years of continuous service. During fulltime Ph.D. course work, management provides 50% of salary. Supporting staff are permitted to pursue B.E., (Part Time) with full salary and 50% of the tuition fees is provided by the management. Faculty

are fully sponsored for abroad visits / industry training. Sponsorship is provided to Teaching / Non-Teaching staff for FDP participation, appearing in exams as well. Nearly 850 staff and 96 students have enjoyed the benefits of welfare schemes.

The University shall continue all the existing welfare schemes and drive sustainable growth and excellence through transparent, accountable, and inclusive governance and ethical leadership.

Finance Plan:

MCET, established by the Sakthi Group under the NIA institutions, benefits from the robust support of this business conglomerate, which has a legacy spanning over 90 years. The Sakthi Group, alongside NIA institutions, has experienced consistent growth in both scale and numbers over the years. The college maintains a rigorous financial system, incorporating thorough budgeting procedures, audits, and regular reviews.

The University shall continuously invest in institutional growth and improvement by implementing sound financial practices. The University strategic plan implementation proposed in 11 different areas are estimated to cost INR 8545, 7940, 9180, 9120, and 8975 lakhs during the 5-year rolling planning periods each year respectively.

The detailed project report submitted to the University Grants Commission outlines the college's journey towards university status, aligning with the National Education Policy 2020 and national priorities. Comprehensive stakeholder involvement and adherence to educational guidelines shaped the proposed deemed to be university’s vision and mission, focusing on current capabilities and future needs in India and globe. Key areas such as academics,

research, and outreach are emphasized, alongside essential support functions like infrastructure, human resources, governance, finance, and admissions. The strategic plan spans short-term (5 years rolling implementation) and long-term (15 years' strategic goals), initiated with the pursuit of deemed university status and informed by benchmarking studies. Integration of NEP 2020, Atmanirbhar Bharat Abhiyan, Viksit Bharat 2047 and UGC guidelines spelt out in UTSAH portal in the strategic plan reiterates commitment to national and global educational excellence by the proposed deemed to be university. This strategic blueprint positions the proposed deemed to be university to make significant contributions across local, regional, national, and global ecosystems, fostering innovation and excellence in education.

2. Sponsoring Body

2.1. Sakthi Group

Genesis: Pollachi, renowned for its lush greenery and natural beauty, complemented by extensive coconut farming, earning it the title of the coconut capital of Tamil Nadu is home to the **Sakthi Group**. Shri. Nachimuthu Gounder a firm believer in education for prosperity, started as a small-time farmer cum transporter who used to transport agricultural products in bullock carts in 1921. With his tireless work, aimed to support travel of people in the region, he founded the Anamallais Bus Transport in 1931, which later became popularly known as ABT. Starting with just 21 buses, it revolutionized rural transportation pioneering in passenger transport services in the region. Following in the footsteps of his father, Arutchelvar Dr. N. Mahalingam established the Sakthi Group. The Sakthi Group is an US$ 2.0 billion Industrial Conglomerate and one of the fastest growing business groups in South India. The Sakthi Group has a strong market presence in several industrial domains with a host of group companies, institutions, trusts, and foundations operating under its umbrella. These organizations have been playing a significant role in shaping the economic and social development of South India. The group has a ***basic philosophy of starting a school, or college, or hospital whenever a new business establishment is commenced***.

Organizations: Anamallais Bus Transport Limited started in 1931, Sakthi Finance Ltd. incorporated in 1955, Sri Sakthi Textiles incorporated in 1957, Sakthi Estates established in 1960, Sakthi Sugars Limited established in 1961, ABT Parcel Service started in 1964, Anamallais Engineering Private Limited established in 1967, Rukmani Offset Press founded in 1968, N.Mahalingam and Company started in 1969, Sri Chamundeswari Sugars Limited

incorporated in 1970, Sakthi Auto Component Limited established in 1983, ABT Maruti dealership in 1984, Sakthi Soyas established in 1989, Sakthi Dairy started in 1994, Sri Mahasakthi Mills incorporated in 1995, ABT Express started in 2002, ABTInfo.Net inaugurated in 2002, Akash Sakthi Aviation founded in 2023, are some companies of the group. These companies and other institutions are managed by the family members with **Dr. M. Manickam** the eldest son of Arutchelvar Dr. N. Mahalingam as the **chairman of the group**.

Founders: Shri. Nachimuthu Gounder was born on 9th November 1902. He studied at the local middle school in Pollachi. He became the Chairman of the Pollachi Municipal council and served the society from 11th December 1931 to 30th October 1934. Alongside growing business, he had an earnest desire of imparting the best technical education and training to the rural youth in and around Pollachi.

Arutchelvar Dr. N. Mahalingam son of Shri. Nachimuthu Gounder was born on 21st March 1923. He had his school education at Pollachi. He obtained his B.Sc. in Physics from Loyola College, Chennai, in 1943. He joined the College of Engineering, Guindy, Chennai and received his Diploma in Mechanical Engineering in 1945. Became an AMIE in 1951, MIE in 1975 and FIE in 1981. He was elected as the member of the Tamil Nadu Legislative Assembly in 1952 as an Indian National Congress candidate for the first time at the age of 29. Then he was elected as a member for the same constituency in the consecutive elections 1956 and 1962. Arutchelvar was an ardent Gandhian, educationist, philanthropist, scientist, administrator, spiritual leader, and a great human being who inspired people. Bharathiar University, Coimbatore conferred Doctor of Laws on him in 1984, Anna University, Madras conferred Doctor of Science on him in 1988 and Tamil Nadu Agricultural University,

Coimbatore conferred Doctor of Science on him in 2000. He was awarded the **Padma Bhushan** by Government of India in 2007.

Contributions: The Sakthi Group and the family have made significant contributions to the region, state and the nation. Motorized transport in the region, Parambikulam Aliyar Project (PAP) linking dams in the region for irrigation and power, educational institutions in various domains, voluntary health services on leprosy, schools for specially-abled, Mahatma Gandhi Center, Ramalingar mission, apart from industrial growth of the region currently supporting around **45000 employees and 35000 students every year** is the way the group and family is impacting the growing needs of India.

2.2. NIA Educational Institutions

Genesis: Nachimuthu Industrial Association (NIA) a section 8 company was founded in 1956 as part of the Sakthi Group by Arutchelvar Dr. N. Mahalingam. Nachimuthu Polytechnic College was the first educational institution to be established under NIA. Today there are **11 institutions of NIA across 4 campuses (A,B,C,D) in Pollachi catering to around 12000 students with 1500 staff**.

There are **3 higher educational institutions** (a polytechnic, an engineering college and an agricultural college), 3 higher secondary schools, 3 primary schools, 1 translation institute and an integrated health centre in NIA.

Institutions: The institutions part of the NIA are given in table 2.1.

Table 2.1: Institutions part of NIA, their inception years and locations

	Name of the Institution	Inception	Location
1	Nachimuthu Polytechnic College (NPTC)	1957	Campus A
2	Sri Kuppanda Gounder Elementary School	1961	Campus C
3	Sri Kuppanda Gounder Nursery & Primary School	1963	Campus C
4	Mariammal Girls Higher Secondary School	1978	Campus D
5	Tmt. Rukmaniammal Higher Secondary School	1991	Campus D
6	Tmt. Mariammal Nursery and Primary School	1991	Campus D
7	Palani Gounder Higher Secondary School	1995	Campus A
8	Dr. Mahalingam College of Engineering and Technology	1998	Campus A
9	Vanavarayar Institute of Agriculture, Manakkadavu	2007	Campus B
10	Arutchelvar Mahalingam Translation Institute	2015	Campus A
11	Mirakle Integrated Health Centre	2018	Campus A

Leaders: Dr. M. Manickam, Chairman of the Sakthi Group and Chairman of NIA educational institutions, holds a master's degree in statistics from Madras University and a master's degree in business administration from University of Michigan, USA. He is also the Vice Chairman of the governing council of Kumaraguru College of Technology, Coimbatore and Correspondent for 5 other educational institutions. In recognition of his contribution in the management of agro-processing industries and agricultural development, he was awarded the "Doctor of Science" (Honoris Causa) by Tamil Nadu Agricultural University, Coimbatore in July 2010.

Shri. M. Harihara Sudhan, Correspondent of NIA Educational Institutions completed his bachelor's in Mechanical Engineering at PSG College of Technology - Coimbatore and Master's in Automobile Engineering at University of Bath, UK. He underwent 2 years of Training in Ford, UK before taking charge as Executive Director of ABT Limited.

Dr. C. Ramaswamy, Secretary of the NIA Educational Institutions, started as a lecturer in Nachimuthu Polytechnic College in 1966, gradually rose through various positions including head of the department and Principal before becoming the Secretary of NIA Institutions in 2000. He has played a leading role for the past 5 decades in the growth and development of the NIA institutions. He obtained his doctorate from Madras University for his research on Industry Institute Collaborative Model in the year 2017.

Dr. S.V. Subramanian, Chief Human Resources Officer at NIA Educational Institutions & ABT Limited, brings over 25 years of HR and admin experience across diverse industries in Tamil Nadu. He holds degrees in Commerce and HR, with additional qualifications in Labour Laws and Personnel Management.

His doctoral research on Competency Mapping at Bharathidasan University, Trichy, underscores his commitment to innovation in HR practices.

Contributions: In the past 65 years of existence, NIA educational institutions have contributed more than **1 lac citizens to various walks of life from the higher educational institutions alone**. The institutions support the local ecosystem by **working with 34 villages**. NIA schools have played a significant role in providing low-cost high-quality education to boys and girls in the region, often topping in performance in the educational district. 19 books have been translated by the translation institute. The recent addition **Mirakle integrated health centre provides holistic wellness programs** to public aimed at the cure of heart ailment, metabolic disorders and cancer.

3. Dr. Mahalingam College of Engineering and Technology

3.1. Genesis, Vision, Mission and Values

Dr. Mahalingam College of Engineering and Technology (MCET) is a private, self-financing, non-minority, co-educational engineering college, established in 1998 by Nachimuthu Industrial Association to commemorate the 75th birth year of Arutchelvar. Dr. N. Mahalingam. **MCET is autonomous**, approved by All India Council of Technical Education, affiliated to Anna University. The campus is located (10.65, 77.04) at Pollachi, **40 km south of Coimbatore on the national highway** connecting Coimbatore and Dindigul.

Photo: Aerial view of the campus

Vision: We develop globally competitive workforce and entrepreneurs.

Mission: Dr. Mahalingam College of Engineering and Technology, Pollachi endeavours to impart high quality, competency based technical education in

Engineering and Technology to the younger generation with the required skills and abilities to face the challenging needs of the industry around the globe. This institution is also striving hard to attain a unique status in the international level by means of infrastructure, state-of-the-art computer facilities and techniques.

Core Values:

- Equity
- Transparency
- Creativity
- Teamwork
- Environmental Sustainability
- Staff Development
- Women in Development

3.2. Leadership Team

Dr. P. Govindasamy, Principal

With over three decades of experience in Teaching, Research, and Administration, he has held diverse roles including Principal, Vice Principal, Dean-R&D, Director-IQAC, and Head of the Department. His academic journey includes a Doctoral Degree in Mechanical Engineering from Coimbatore Institute of Technology, and he has published extensively with over 56 research papers and 32 conference proceedings. He serves as Editor for the Journal of Petroleum and Alternative Fuels (JPTAF) and is actively involved in professional bodies like ISTE, ASME, and IEEE. His research spans alternative fuels, automotive engineering, and environmental sustainability,

complemented by consultancy and fundraising achievements through research grants.

Dr.A.Senthil Kumar, Dean - Academic and Autonomous

With nearly three decades of experience in academia, research, and administration, he graduated from PSG College of Technology - Coimbatore in Electrical and Electronics Engineering and pursued a Post-Graduation in VLSI Systems at NIT Trichy, receiving an Academic Excellence Award from Bharathidasan University. His doctoral research at Anna University focused on VLSI Signal Processing. Recognized twice with the Best Teacher Award, his expertise spans Embedded Systems, VLSI Signal Processing, and Industrial Automation. He has guided 11 PhD scholars, presented over 50 papers in national and international conferences, and published 25 papers in international journals. He's received substantial grants for research projects and consultancy in Embedded Systems and Energy Auditing, and has international research and educational experience in Canada, Thailand, and Singapore.

Dr.S.Ramakrishnan, Dean - Research and Innovation

With over two decades of experience in academia, research, and administration, he has guided 9 Ph.D. candidates and numerous B.E. and M.E. projects. He serves as Associate Editor for IEEE Access and he is a reviewer for 39 international journals and is on the editorial boards of 6 international journals. His prolific publication record includes 220 papers in prestigious journals such as IEEE Transactions, Elsevier, and Springer. He has authored 14 books on topics ranging from Image Processing to Cryptography, published by renowned presses like CRC Press and Taylor & Francis Group. He has been recognized as one of the Top 2% Scientists in the world by Elsevier and the

Stanford University and also as a top scientist in the AD Scientific Index, his research spans digital image processing, information security, and soft computing. He has successfully led externally funded projects from CSIR, AICTE, and DRDO.

Dr. Calvin Sophistus King, Dean – Industry Relations and Talent Development

With over two decades of diverse academic and administrative experience across various educational systems, he holds a Ph.D. in Energy Engineering from BITS – Pilani, complemented by an M.Tech. in Energy Engineering and a B.E. in Mechanical Engineering. His passion for learning and development is evident in his contributions to academia and industry, focusing on outcome-based education models. He is deeply involved in professional bodies like ASEE, SAE, and PMI, and is certified in Kirkpatrick Evaluation, Neuro Linguistic Programming, and Cambridge University Training. His expertise spans learning experience design, behavioral change management, project management, renewable energy, and electric vehicles. A global traveler, he advocates collaboration for societal talent development.

3.3. Milestones

- 2024: MCET signed an MoU with James Cook University, Singapore and Australia.
- 2024: MCET signed an MoU with Renault Nissan Technology Business Center India.
- 2023: B.E. programs in Advanced Communication Technology and Very Large Scale Integration Design and Technology were started.
- 2023: Information Technology, Electrical and Electronics Engineering, and Automobile departments were recognized as research centres by Anna University.

- 2023: MCET signed MoU with M/S. NTT Data for talent development and supply in Data Science.
- 2023: Tamil Nadu Apex Skill Development Centre (TNASDC) partnered with the Centre for Learning and Development.
- 2023: Electronics Manufacturing Skill Training Centre was established.
- 2022: VIRTUSA Centre for Software Training was established.
- 2022: B.E. programs in Artificial Intelligence and Machine Learning and Cyber Security were started.
- 2021: B.Tech. program in Artificial Intelligence and Data Science was started.
- 2021: MCET signed MoU with M/S. Capgemini for talent development and supply in Product Life Cycle Management, Model Based Systems Engineering and New Product Development.
- 2020: M.E. program in Embedded Systems was started.
- 2019: EMBDES IoT Centre was established.
- 2019: EKKI International Water Technology Centre was established.
- 2019: Physics department was recognized as a research Centre by Anna University.
- 2018: JANATICS Centre for Mechatronics and Automation was established.
- 2018: FANUC Centre for Advanced Manufacturing and Robotics was established.
- 2018: BOSCH Artisan Training Centre was established.
- 2018: MCET secured a Platinum Ranking in the AICTE CII Survey of Industry.
- 2017: SWELECT Centre for Solar PV Training and Research was established.

- 2016: BOSCH Joint Certification Centre was established.
- 2016: Computer Science and Engineering and Civil Engineering departments were recognized as research centres by Anna University.
- 2016: MITSUBISHI ELECTRIC Centre for Factory Automation was established.
- 2015: Electronics and Communication Engineering department was recognized as a research centre by Anna University.
- 2015: Centre for Innovation, Business Incubation, and Entrepreneurship (CIBIE) was established.
- 2015: MCET signed MoU with M/S. TVS Motors for talent development and supply in Mechanical Engineering.
- 2014: TUV Rheinland Centre for Advanced Training in Automobile Technology was established.
- 2014: HARITA TECHSERV Centre for Product Development was established.
- 2013: CADENCE ASIC Centre of Excellence was established.
- 2013: SIEMENS Centre of Excellence for Digital Manufacturing was established.
- 2013: TUV Rheinland Centre for Advanced Training in Welding and Non Destructive Testing was established.
- 2013: BOSCH REXROTH Regional Centre of Competence in Industrial Automation Technologies was established.
- 2012: KEYSIGHT Centre for RF Communication Systems was established.
- 2012: M.E. programs in Communication Systems and Structural Engineering were started.
- 2011: C-DAT Centre for Design Analysis and Testing was established.

- 2011: B.E. program in Electronics and Instrumentation Engineering was started.
- 2009: Altair Engineering Centre was established.
- 2007: B.E. programs in Automobile Engineering and Civil Engineering were started.
- 2006: Mechanical Engineering department was recognized as a research Centre by Anna University.
- 2005: M.E. program in Applied Electronics was started.
- 2004: M.E. programs in Computer Science and Engineering and Computer Aided Design (CAD)/ Computer Aided Manufacturing (CAM) were started.
- 2002: B.E. program in Electrical and Electronics Engineering was started.
- 2001: Master of Computer Applications (MCA) program was started.
- 2000: Apple Distinguished School was established.
- 1999: B.Tech. program in Information Technology was started.
- 1998: B.E. programs in Mechanical Engineering, Electronics and Communication Engineering, and Computer Science and Engineering were started.
- 1998: MCET was established.

3.4. Autonomous Status

MCET obtained autonomous status from University Grants Commission in the year 2011. It has subsequently obtained extension during 2017 and 2022. At present MCET has the **autonomous status valid till 2032**.

3.5 Accreditations

In October 2023, the institution underwent evaluation by the National Assessment and Accreditation Council **(NAAC)** for its 3rd cycle of

accreditation, resulting in the award of an A++ Grade for a seven-year period, with a notable 3.59 out of 4. With this achievement MCET has the distinction of obtaining the **highest grade consecutively in THREE cycles**.

Table 3.1: NAAC accreditations and grades of MCET

Cycle	Marks Awarded	Grade	Period of Accreditation
III	**3.59 out of 4**	**A++ Grade**	**7 Years 27.10.2023 to 26.10.2030**
II	**3.53 out of 4**	**A++ Grade**	**5 Years 16.08.2018 to 15.08.2023**
I	**3.61 out of 4**	**A Grade**	**5 years 05.01.2013 to 04.01.2018**

MCET also places significant emphasis on high-quality programs by ensuring accreditation by National Board of Accreditation (NBA).

Table 3.2: NBA accredited programs at MCET

Program	No. of Times Accredited	Validity Till
B.E. Mechanical Engineering	5	30.06.2025
B.E. Electronics and Communication Engineering	5	30.06.2025
B.E. Computer Science and Engineering	5	30.06.2025
B.E. Electrical and Electronics Engineering	5	30.06.2025
B.Tech. Information Technology	4	30.06.2025
B.E. Automobile Engineering	2	30.06.2027
B.E. Civil Engineering	2	30.06.2027
B.E. Electronics and Instrumentation Engineering	1	30.06.2023

3.6. Skill Centres at MCET

MCET has established 20 skill centres in collaboration with industries, each focusing on specific areas of expertise or domains. These centres serve as hubs for knowledge sharing, collaboration, specialization, research, innovation, training, capacity building, networking, and partnerships in their respective fields. They offer valuable opportunities for students and staff to understand industry practices, enhance their knowledge through industry-relevant projects, and provide training and skill enhancement programs for technicians already employed in the industry. The centres are equipped with state-of-the-art facilities and utilize specialized software and hardware for research, funding acquisition, and consultancy purposes. By establishing collaborations with globally renowned corporations, the centres enable students and faculty to experience international standards and facilities within their local environment.

1. MCET - BOSCH REXROTH Regional Centre of Competence: Focuses on industrial automation, specifically hydraulics and pneumatics. Offers training programs, consultancy, and projects in this field.
2. MCET – Centre for Design Analysis and Testing: Specializes in providing comprehensive consultancy services to the automobile and engineering industries.
3. MCET – ALTAIR Centre: Offers courses and programs related to Computer Aided Engineering (CAE) and Finite Element Modelling (FEM).
4. MCET – Keysight Centre for Radio Frequency (RF) Communication Systems: Provides training programs in advanced communication and RF system design.

5. MCET - TUV Rheinland Centre for Advanced Training: Provides skill development training in arc welding, non-destructive testing (NDT), and automobile trades.
6. MCET ASIC Centre of Excellence: Dedicated to custom integrated circuit design, offering programs and workshops to enhance knowledge and expertise.
7. MCET - Siemens Centre for Digital Manufacturing: Offers programs and courses to enhance student employability and bridge academia-industry gaps through skill development, consultancy, and hands-on experiences using Siemens PLM software, including CAD, PLM, and Digital Manufacturing.
8. MCET – Harita Techserv Centre: Offers programs and courses focused on placement assistance and value-added training in CATIA, a computer-aided design (CAD) software.
9. MCET – TUV Rheinland Centre for Advanced Training (Automobile Technology): Imparts knowledge and skills in the automotive field, with a focus on advanced automotive technologies.
10. MCET - Mitsubishi Electric Centre for Factory Automation: Trains students in automation technologies, particularly programmable logic controllers (PLC) and human-machine interfaces (HMI).
11. MCET – Bosch Joint Certification Centre: Offers courses on after-market services, specifically focusing on automobile engine starting systems and fuel injection pump systems.
12. MCET- JANATICS Centre of Excellence for Mechatronics and Automation: Provides comprehensive training programs in various fields, including pneumatics, PLC, sensors, and automation technology.

13. MCET- SWELECT Centre for Solar PV Training and Research: Dedicated to developing skilled manpower and research in solar PV technology.
14. MCET – BOSCH Artisan Training Centre: Focuses on training students and unemployed youth in artisan trades.
15. MCET – FANUC Centre for Advanced Manufacturing and Robotics: Specializes in education and training in robotics and manufacturing, particularly CNC machines and robotics.
16. MCET – EmbDes IoT Centre: Equips students with skills in design tools and printed circuit board (PCB) design, with a focus on IoT and embedded systems.
17. MCET - EKKI International Water Technology Centre: Develops vocational programs for students and professionals in the field of water technology.
18. MCET - Electronics Manufacturing Skill Training Centre: Covers electronic circuit design, soldering, PCB design, and assembly line operations.
19. MCET – Virtusa Centre of Excellence for Software Testing: Enriching practical skills and imparting industry relevant course curriculum to students of all engineering disciplines in the field of Information Technology
20. MCET – Learning and Development: L&D change the behaviour of individuals or groups for the better, sharing knowledge and insights that enable them to do their work better, or cultivate attitudes that help them perform better.

These centres offer services, training, and certifications to both students and industry professionals, contributing to revenue generation, research activities, and consultancy services.

Outcomes of the Centres:

Activities	Till 2017	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	Total
No of courses	71	23	53	60	16	18	30	76	347
No of programs	181	69	118	66	17	49	70	88	658
No. of projects	31	5	12	3	1	4	1	5	62
No. of participants from MCET/NPTC	4671	1397	3303	3077	1001	1477	1962	3799	20687
No. of participants from other Institutions	823	88	831	453	63	251	445	271	3225
No. of participants Industries	93	1	88	10	186	81	54	147	660

MCET has invested around INR 12 Crores and its partners INR 4 Crores into the equipment and software available in centres. The centres are in buildings having an area of 3000 m^2.

The centres address the UN SDGs 4, 9 and 17.

The purpose of each centre, scope of its activities and outcomes are indicated in the following sections.

MCET- Bosch Rexroth Regional Centre of Competence in Industrial Automation Technologies

The Bosch Rexroth centre features state-of-the-art labs for industry-focused research, projects, and specialized training programs. These include Industrial Hydraulics and PLC and Mechatronics, aimed at developing practical skills. Additionally, One Credit Courses cover Industrial Automation Technologies, Fluid Power Systems, and Factory Automation, providing targeted knowledge in key areas. The Value Added Education initiative offers both foundational and advanced training in Hydraulics and Pneumatics, PLC Programming , and the integration of PLC, HMI, and SCADA systems, delivering a comprehensive understanding of automation and control technologies to enhance industry readiness.

Number of programs completed	156
Number of courses completed	121
Number of projects completed	54
Number of beneficiaries	7284

SAKTHI AUTO COMPONENT LIMITED

MCET - Centre for Design Analysis & Testing

The C-DAT utilize state-of-the-art technologies, including hydraulic actuators and impact testing machines, to improve the performance of critical components such as knuckles and disc plates. Our commitment to innovation and precision engineering has resulted in significant advancements in the durability and reliability of these components, ultimately contributing to the overall performance of our clients' vehicles.

C-DAT has successfully completed over 100 projects encompassing various mechanical testing methodologies.

Testing facilities:

Equipment	Model	Rated Force / Energy	Maximum Span / Velocity	Made by
Hydraulic actuator -I	AC 02-0215	+/- 150 kN	-150 mm to +150 mm	Bangalore integrated system solutions Pvt Ltd, India
Hydraulic actuator -II	PL 63 R	+/- 50 kN		Instron structural system, Germany
Hydraulic actuator -III	PL 25 R	+/- 25 kN		
Impact Test Machine	9250 HV	1603 J	20 m/s	Instron, USA.

MCET-ALTAIR Centre of Excellence

The Altair Centre provides practical, hands-on training in Finite Element Pre-processing using 'Hypermesh,' preparing them to excel in industry projects, consultancy assignments, and placements in Finite Element Analysis (FEA) companies. The Simulation and Analysis Laboratory offers comprehensive training in ANSYS tools, empowering students with the skills and confidence needed for consultancy work.

A specially designed one-credit course focuses on the fundamentals of FEA solvers, particularly 'Hypermesh,' ensuring students develop a solid foundation in this critical area. The course offerings include Finite Element Modeling using Hypermesh 17.0, hands-on training in Ansys Workbench, and practical experience with OptiStruct, equipping students with the tools and expertise to meet the demands of the industry. Through this immersive training, students gain valuable skills that enhance their career opportunities in FEA and related fields.

Number of programs completed	15
Number of courses completed	11
Number of projects completed	1
Number of beneficiaries	2088

MCET - KEYSIGHT Centre for RF Communication Systems

The Keysight Centre serves as a platform for developing skills in RF and Microwave Circuit design, utilizing tools like Advanced Design System (ADS) by Keysight Technologies, which provides an integrated design environment for applications such as mobile phones, wireless networks, satellite communications, and RADAR systems. The Keysight Vector Network Analyzer (VNA) enables precise performance measurements of RF circuits and antennas. Students can explore Bluetooth, GPS, and Zigbee Communication technologies through dedicated training kits. The centre offers a variety of training courses, including RF Circuit Design using ADS, Impedance Matching Network Design and Analysis, and Microstrip Patch Antenna Design for Bluetooth and Wi-Fi. Value-added courses, such as Antenna and RF Circuit Design, Introduction to Wireless Technology, and High-Frequency Electronic Circuit Design, equip students with essential skills for careers in wireless and RF engineering.

Number of programs completed	22
Number of courses completed	18
Number of beneficiaries	1288

MCET – TUV Rheinland Centre for Advanced Training (Welding and NDT)

The TUV welding centre offers specialized skill development programs in Arc Welding and Non-Destructive Testing (NDT). The centre delivers industry-relevant training through a variety of courses, including SMAW, TIG, and MIG welding for ferrous metals like Mild Steel, Carbon Steel, and Stainless Steel, as well as for non-ferrous metals such as Aluminum and Titanium. Additionally, the centre provides Non-Destructive Testing Level-1 and Level-2 training, empowering students with the knowledge and practical skills needed for careers in testing and welding technologies. Supported by TUV Rheinland, a global leader in safety and quality, the centre's offerings align with TUV's expertise in Industrial Services, Mobility & Transport, Product Safety Testing and Certification, ICT, Systems, and Academy & Lifecare.

Number of programs completed	206
Number of courses completed	14
Number of projects completed	1
Number of beneficiaries	2769

MCET – ASIC Centre of Excellence

The ASIC centre offers a variety of specialized courses, including Analog Design for Medical Devices, Full Custom Analog IC Design using Cadence EDA Tool, Custom Digital IC Design using Cadence EDA Tool, and Implementation of Image Processing Algorithms on FPGA Hardware. Through hands-on training, students in Analog IC Design will become proficient in Cadence Electronic Design Automation (EDA) tools, enabling them to work on projects using 180 nm, 90 nm, and 45 nm technology with a Generic Process Design Kit. This training equips them with skills in schematic and layout design for analog VLSI, preparing them for careers in the field. For students in Digital VLSI Design, hands-on sessions provide expertise in register-transfer level (RTL) design across different technology nodes. Students gain practical knowledge in simulation, synthesis, and GDSII file extraction for combinational and sequential circuits, enhancing their abilities to succeed in semiconductor industry interviews and careers.

Number of programs completed	7
Number of courses completed	18
Number of projects completed	1
Number of beneficiaries	886

MCET – SIEMENS Centre of Excellence for Digital Manufacturing

The Siemens centre offers courses in Solid Modeling using NX CAD, PLM in Product Development using Teamcenter, NX CAD Essentials and Advanced, Teamcenter PLM Basics, Plant Simulation Basics, and Process Simulate Basics. Additionally, the centre provided NX CAD consultancy services to L&T Defence, assisting with the conversion of 2D drawings to 3D models. Since 2018, 39 L&T Defence employees have received training in NX CAD, empowering them to design and develop cutting-edge products for the defence sector. The center offers comprehensive internship and placement training in NX CAD, Team-Center PLM, and Tecnomatix Plant Simulation, helping students secure jobs at top companies like TCS, Capgemini Engineering, Caresoft Global, Bavis Technologies, Intelizign, and Thinkinnov Solution Technologies. Students have also gained valuable internship experience at leading firms such as Caterpillar Engineering Design Centre, ELGi's Digital Innovation Dojo, L&T Defence, and MTAB Technology Centre.

Number of programs completed	99
Number of courses completed	62
Number of projects completed	4
Number of beneficiaries	3881

MCET -HARITA TECHSERV Research Centre on New Product Development and Manufacturing Technologies

The Harita Techserv centre offers specialized training in CATIA, NX CAD, and Creo, providing students with the skills needed to excel in design software and secure placements. Courses include Basic Solid Modelling using CATIA V6, CATIA V6 Basics, and both Fundamental and Advanced 3D Design using Creo Parametric. Additionally, the centre conducts Faculty Development Programs (FDP) in CATIA and NX software, aimed at equipping educators with the necessary skills to incorporate these tools into their teaching and research. This enables faculty members to better prepare their students for careers in CAD and related fields, fostering expertise in cutting-edge design technologies. With over 80 students successfully placed in prestigious companies such as Mercedes-Benz, TVS Motors, General Motors, Brakes India, Tata Hitachi, Dover India Pvt Ltd, and Epiroc, the centre is dedicated to shaping careers in the automotive and manufacturing industries.

Number of programs completed	15
Number of courses completed	14
Number of beneficiaries	944

MCET – TUV Rheinland Centre for Advanced Training (Automobile Technology)

The TUV Automobile centre offers a range of training programs designed to equip students with practical skills and knowledge in the automotive field. Courses include Advanced Automobile Technology, Automotive Electrical and Electronics Systems using LABSOFT, and the Basics of Automotive Technology.

A skills enhancement program for Automotive Service Technician Level-4 is offered at MCET, Pollachi, aimed at preparing students for industry-ready roles. The students in Automobile Engineering gain hands-on experience in automotive systems through specialized training programs, enhancing their job prospects in the automotive industry. Additionally, online Certification Course on Electronic Assist Vehicle Stability Control Systems and the Value-Added Course on Automotive Electrical and Electronic Systems, both of which help them develop crucial skills in automotive electronics.

Number of programs completed	10
Number of courses completed	10
Number of beneficiaries	651

MCET-BOSCH Joint Certification Centre

The Bosch Joint certification center offers a comprehensive education in automobile electrical systems and fuel injection pump repair, designed to equip participants with industry-relevant skills. The courses include Diesel Fuel Injection Systems, Distribution Pumps, Injection Pump Calibration, and Energy Systems, providing an in-depth understanding of these critical components. With a strong industry focus, the program ensures that participants gain the practical expertise required to excel in the automotive sector. The curriculum covers various aspects of automobile electrical systems, including diagnostics, repair, and maintenance. Participants also learn the fundamentals of electrical circuits, gaining insights into wiring diagrams, sensors, actuators, and electronic control units (ECUs).

Number of programs completed	7
Number of courses completed	7
Number of beneficiaries	373

MCET - MITSUBISHI Electric India Centre for Factory Automation

The Mitsubishi Centre for Factory Automation offers a comprehensive program focused on advanced industrial technologies, providing certification courses in PLC, HMI, and Servo Systems, as well as the Certified Factory Automation Engineer (CFAE) program. This training covers Human-Machine Interfaces (HMI), Servo Drives, and Programmable Logic Controllers (PLC), which are key technologies driving modern factory automation. These technologies have revolutionized industrial operations by streamlining production processes, enhancing efficiency, and improving overall quality control. Participants in the program gain hands-on experience and practical knowledge in these areas, equipping them to meet the demands of the manufacturing industry. With the growing importance of factory automation in improving competitiveness and innovation, the program prepares individuals to play a vital role in implementing and managing these technologies.

Number of courses completed	2
Number of beneficiaries	65

MCET – JANATICS Centre of Excellence for Mechatronics and Automation

The Janatics Centre provides participants with comprehensive exposure to various aspects of automation technology. It is designed to enhance knowledge in key areas such as Pneumatics, Electro Pneumatics, Programmable Logic Controllers (PLC), Sensors, Mechatronics Systems, and Automation Technology. The program includes specialized courses tailored to each of these areas, ensuring a thorough understanding of automation processes and systems. Courses include the Comprehensive Training Programme on Pneumatics, Electro Pneumatics, PLC Systems, Mechatronics and Automation, and workshops focused on Industrial Pneumatics and Electro Pneumatics with PLC Systems. Through hands-on training, participants develop practical skills that are highly valued in the automation industry. The program's diverse range of courses equips learners to meet the demands of modern industrial environments, enhancing their expertise in automation and positioning them for successful careers in this fast-evolving field.

Number of programs completed	15
Number of courses completed	28
Number of projects completed	3
Number of beneficiaries	1288

MCET-SWELECT Centre for Solar PV Training and Research

The Swelect Centre supports key initiatives like the MNRE-sponsored "Suryamitra" Skill Development Programme from the National Institute of Solar Energy (NISE) and the "Vayumitra" Skill Development Programme (VSDP) from the National Institute of Wind Energy (NIWE). In addition, it offers a comprehensive suite of value-added courses and skill development training programs focused on solar technology. Courses cover essential topics such as Photovoltaic Basics, Solar PV Characteristics, Types of PV Systems, and the Design and Analysis of Solar PV Systems using PVSYST, equipping participants with critical knowledge and practical skills for the industry. SWELECT is accredited by the Ministry of New and Renewable Energy (MNRE), underscoring its expertise in the field.

Number of programs completed	25
Number of courses completed	4
Number of beneficiaries	848

MCET-BOSCH Artisan Training Centre

The Bosch Artisan Centre offers a variety of courses aimed at enhancing skills in carpentry and renovation. Key offerings include training in hand tool and power tool handling, as well as concepts for home and office renovation. The "Advanced Woodworking Concepts" course emphasizes the application of learned skills to real-life carpentry projects, focusing on essential carpentry principles, tools, and safety protocols. Additionally, a Value Added Course on "Hand Tool & Power Tools for Carpentry" is part of the Summer Vocational Training Program, providing core knowledge in handling vital power tools such as Circular Saws, Miter Saws, Table Saws, Jigsaws, Routers, Power Drills, Belt Sanders, Random Orbital Sanders, and Planer Lathes. Furthermore, the "Hands-On Training on Carpentry" workshop reinforces these skills, allowing participants to apply their knowledge in practical settings while ensuring a comprehensive understanding of carpentry principles.

Number of programs completed	2
Number of courses completed	4
Number of beneficiaries	138

MCET-FANUC Centre for Advanced Manufacturing and Robotics

The Centre offers a range of skill development courses aimed at enhancing students' technical expertise in CNC and robotics. These include specialized courses in CNC Programming for Turning Centers and Machining Centers, as well as Robot Programming for Material Handling and Welding applications. Engineering students can benefit from a dedicated CNC Programming course designed to equip them with essential skills. Additionally, an Extra Credit Course on CNC Programming is available for students, providing them with further learning opportunities. To foster hands-on experience, a Value-Added Course on Robot Programming has been implemented for students. Moreover, the centre organizes an Internship Program focused on Robot Programming specifically tailored for Polytechnic students, allowing them to gain practical insights and experience in the field.

Number of programs completed	5
Number of courses completed	19
Number of beneficiaries	1101

MCET – EMBDES IOT Centre

The Embdes Centre offers a range of courses focused on embedded systems, including Design of Embedded Systems, Interfacing Arduino with Peripherals for Applications, and Modeling Smart Systems using the Tinkercad tool. These programs provide students with both theoretical knowledge and practical skills essential for success in the field. Students enrolled in these courses have the opportunity to undertake final year projects in embedded systems, which significantly enhances their professional development and prepares them for industry demands. The hands-on experience gained from these embedded projects is invaluable for building a solid foundation in the field. Graduates are well-equipped to pursue various career paths, such as embedded hardware engineers, embedded software engineers, and research scientists. The practical skills and comprehensive knowledge acquired through these courses greatly improve their competitiveness in the job market, making them attractive candidates for a variety of roles in the rapidly evolving technology landscape.

Number of programs completed	2
Number of courses completed	7
Number of beneficiaries	184

MCET-EKKI International Water Technology Centre

The Ekki Centre offer a range of courses designed to provide in-depth knowledge of pump performance and related engineering principles. Topics covered include the performance characteristics of vertical and horizontal pumps, motor performance, selection of pumps, system losses, cavitation, priming, water hammering, and troubleshooting techniques. Through our OCC program on "Pump Application Engineering" for Mechanical Engineering students, participants gain valuable insights into the industry, enhancing their employability in the pump sector. Similarly, our ECC program on "Fluid Power – Pump Application Engineering" equips Diploma in Mechanical Engineering students at NPTC with the expertise needed for skilled roles in the field. Additionally, our workshop on "IoT in Water Pumps" provides participants with practical knowledge of integrating IoT technology into pump design. This workshop prepares them to contribute to the development of IoT-enabled pumps and smart water management systems, broadening their career opportunities in advanced engineering fields.

Number of programs completed	2
Number of courses completed	3
Number of beneficiaries	149

MCET – Virtusa Centre of Excellence for Software Testing

The Virtusa centre offers a variety of courses aimed at enhancing programming and software development skills. These include training in Java/Python for software development, software testing using Selenium with Java, and basic programming skills in C, Java, and Python. We also conduct boot camps and workshops to strengthen programming proficiency. To further enhance learning, we propose an industry-institute academic alliance between Virtusa and the Partner institution, aimed at training students and faculty in the field of software testing. Virtusa will leverage its extensive experience and ongoing projects to provide practical training and exposure, sharing industry best practices and real-world insights. This collaboration will bridge the gap between academic knowledge and industry needs, equipping students with the skills required to meet current market demands. The partnership will offer students a more industry-relevant education while providing Virtusa access to potential talent, contributing to the development of a skilled workforce in the software industry.

Number of courses completed	1
Number of beneficiaries	69

MCET - Electronics Manufacturing Skill Training Centre

The Electronics Manufacturing Centre provides hands-on experience in electronic circuit design, soldering of electronic components, and PCB design. Equipped with state-of-the-art facilities, the center comprises a PCB Component Assembling Sector and a Soldering Station, all under one roof to support Electronics System Design. Currently, students from the ECE, EEE, and EIE departments are excelling through our training programs. We aim to extend these opportunities to others involved in electronics system design and manufacturing, helping to foster entrepreneurship in line with the Startup India initiative by facilitating Electronic Prototype Product Development. Our course offerings include Electronic Circuit Design, Soldering Electronic Components, PCB Design, and Assembly Line Operation. Recently, through our PMKVY 4.0 program, 90 students were trained as "Assembly Line Operators" at NSQF level 4.

Number of programs completed	7
Number of beneficiaries	236

MCET – Centre for Learning and Development

The L&D Centre offers a diverse range of skill development programs, including Lean Six Sigma Green and Black Belt Certification courses in collaboration with MSME and TNASDC, available in both online and physical formats. The center also provides training in Lean Management tools, Electric Vehicle Technology, and Behavioral Change programs. A recent Behavioral Change training at Propel Industries, Coimbatore, titled "Ownership Empowerment and Health Consciousness: A Path to Quality Living," focused on improving the skills and well-being of welders. Additionally, the center's Lean Six Sigma consultancy projects have yielded significant success, such as optimizing the Planetary Gear Box assembly process at Eppinger Tooling Asia Pvt Ltd. This project led to enhanced efficiency and resource utilization, aligning with Lean principles to improve overall operational performance.

Number of programs completed	2
Number of courses completed	9
Number of projects completed	1
Number of beneficiaries	289

3.7. Achievements, Recognitions and Contributions

3.7.1. Achievements made by the Institution

MCET constantly strives to implement and share the best practices aimed at holistic development of students and development of the institution. This has fetched several recognitions for MCET.

- The ***Institution's Innovation Council (IIC) program***, launched by the Ministry of Education (MoE) in collaboration with the All-India Council for Technical Education (AICTE), aims to foster a culture of innovation and entrepreneurship in higher educational institutions (HEIs). MCET has consistently obtained ***3.5 stars*** and above out of 5 since its launch.
- ***DQ-CMR Top T-School Survey*** conducted by Dataquest is a highly respected and pioneering assessment of technical education in India. MCET obtained ***34th and 44th ranks during 2023 and 2024*** respectively.
- **Great Place to Work®** is a global authority on workplace culture. They specialize in creating high trust work environments, elevating employer brands, and engaging employees. Their certification process helps organizations attract and retain top talent while unlocking their potential. MCET is recognized as a Great Place to Work in India and Asia during **2023-24**, as part of NIA Educational Institutions under the category of mid-size education and training institute.

3.7.2. Recognitions for the faculty

- *Dr. S. Ramakrishnan has been recognized as one of the Top 2% Scientists in the world by Elsevier and the Stanford University Database for 2024, under the specialization of Artificial Intelligence & Image Processing. He*

has also been recognized as top scientist in AD Scientific Index during 2022,2023, 2024 and 2025 consecutively for 4 years. He was recognized as a Featured Reviewer by ACM Computing Reviews in 2021-2022, and earned the Bentham Ambassador Award from Bentham Publishers in 2019-2020. Additionally, he received certificates of appreciation from IntechOpen, London in 2019-2020 and Elsevier in 2018-2019 for his outstanding contribution in reviewing.

- *Dr. B. Saravanakumar has been recognized as one of the Top 2% Scientists in the world by Elsevier and the Stanford University Database for 2024, under the specialization of Enabling &Strategic Techniques Materials. He received the Trusted Reviewer Award from IOP Publishing in 2021-2022 and Outstanding Reviewer Awards in Nanotechnology from IOP Publishing in 2020-2021. He also participated in the MCET - Cape Breton University Collaborative Research Fellowship in 2018-2019*
- *Dr. T. Ramkumar* engaged in Collaborative Research with Shandong University, China in 2020-2021. He received the Trusted Reviewer Award from Elsevier Publishing in 2022-2023 and Outstanding Reviewer Awards in Nanotechnology from Elsevier Publishing in 2020-2021, 2021-2022 & 2022-2023
- *Dr. S. Ponni@Sathya and Dr.K.Uma Maheswari* are honored with the Chhatra Viswakarma award for the project "Work Smart at Villages" by Honourable Minister Shri. Dharmendra Pradhan, Ministry of Education at AICTE campus, Delhi in 2021-2022.
- *Dr. A. Noble Mary Juliet* obtained NPTEL Domain certification in Programming in 2021-2022. She also received the “One.Class” Performance Award in 2017-2018 and served as an active SPOC for the NPTEL Local Chapter for two consecutive semesters.

- *Dr. N. Senthil Madasamy* was acknowledged as an active SPOC / NPTEL Brand Ambassador by Swayam NPTEL in both 2019-2020 and 2021-2022.
- *Mr. V. Gurunathan and Ms. T. Sathiyapriya* received Pre-screening Evaluator certificates for the Smart India Hackathon 2022 from MHRD Innovation Cell, AICTE in 2021-22, and Primary evaluator for exceptional contribution certificate for Toycathon 2021 from MHRD Innovation Cell, AICTE in 2020-21.
- *Dr. R. Sudhakar* received the Outstanding Associate Editor award from IEEE Access in 2019-2020. He also received several certificates of appreciation for serving as a reviewer from SPIE, USA and Elsevier, Amsterdam, The Netherlands.
- *Mr. P. Boopathirajan* received the Mentor award by Smart India Hackathon 2018 for mentoring the MCET Techie team from Smart India Hackathon 2018 in 2017-2018.

3.7.3. Contributions

MCET is proud of its contributions to the nation through **16728 alumni** across the globe holding various positions in industry, government, services, pursuing higher education in reputed universities around the world and running businesses.

Through the industry powered skill centres, MCET has contributed to the skilling ecosystem of the country with close to **25000 skill impacts** in various sectors ranging from capital goods to electronics.

MCET constantly works in **34 villages** in the region through various programs such as Providing Urban Amenities in Rural Areas (PURA) and contributes to the societal upliftment.

MCET also provides **scholarships to the tune of INR 1 crore every year** and financial support through endowments for deserving candidates ensuring education for the deprived.

3.8. Systems and Processes

MCET has adopted a systems approach and has instituted processes that help achieve its goals. Few important processes are:

1. Admission process based on Qualifying Examinations with Counselling System
2. Teaching learning process based on Outcome Based Education Model with Choice Based Credit System
3. Evaluation process based Continuous Assessments with Relative Grading System
4. Career development process based on Preferences and Competency with Support Systems
5. Faculty selection/appraisal/career advancement process based on Metrics in academics, research and administration
6. Audit process based on Academic and Administrative Audit with coverage of all the major and minor processes

3.9. Programs

At present MCET offers comprehensive range of academic programs, including Undergraduate (UG), Postgraduate (PG), and Doctoral (PhD) programs, providing students with diverse opportunities for higher education and research.

Table 3.3: List of programs offered at MCET

Sl.No.	Program	Intake
	Undergraduate (UG)	
1	B.E. Automobile Engineering	60
2	B.E. Civil Engineering	60
3	B.E. Computer Science and Engineering	180
4	B.E. Computer Science and Engineering (Artificial Intelligence & Machine Learning)	60
5	B.E. Computer Science and Engineering (Cyber Security)	60
6	B.E. Electrical and Electronics Engineering	120
7	B.E. Electronics and Communication Engineering	120
8	B.E. Electronics and Communication Engineering (Advanced Communication Technology)	60
9	B.E. Electronics Engineering (VLSI Design and Technology)	60
10	B.E. Mechanical Engineering	60
11	B.Tech. Artificial Intelligence and Data Science	120
12	B.Tech. Information Technology	120
	Postgraduate (PG)	
13	M.E. Communication Systems	12
14	M.E. Computer Science and Engineering	12
15	M.E. Embedded System Technologies	12
16	M.E. Structural Engineering	6
17	M.E. Computer-Aided Design (CAD)/ Computer-Aided Manufacturing (CAM)	6
18	MCA Master of Computer Applications	60
	Doctoral (PhD)	
19	Automobile Engineering	N.A.
	Civil Engineering	
	Computer Science and Engineering	
	Electrical and Electronics Engineering	
	Electronics and Communication Engineering	
	Information Technology	
	Mechanical Engineering	

3.10. Partial List of Best Practices

1. Skill development and value-added courses
2. Programs categorized into streams
3. Courses to develop professional skills of students
4. Collaborative education program
5. Peer review of teaching
6. Industry attachment program
7. Learning management system
8. Tablet based teaching learning
9. Co-creation of end semester examination question paper
10. Special interest group
11. Foreign languages training
12. Scholarships under different categories
13. Student empowerment through councils and committees
14. Incentives and recognitions for students and staff
15. Staff family welfare schemes

3.11. Special Initiatives

- Arutchelvar Vidhya Sakthi scholarships
- Yuvasakthi forum for women and girls with scholarships
- Career planning and guidance programs for all students
- Solar power plants and bio-gas plant for alternate energy sources
- Ban on single-use plastic in cafeterias, college buildings, and hostels
- Landscaping with grass, bushes, and oxygen-producing trees
- Energy conservation measures, including LED bulbs and sensor-based lights
- Waste water recycling using natural methods

3.12. Community Engagement

At MCET, education goes beyond the traditional classroom setting. The institution prioritizes holistic student development, emphasizing academic excellence, personal growth, and extracurricular engagement. MCET achieves this through a diverse range of student organizations and clubs, each catering to specific interests and passions.

- **Students' Guild of Services** (SGS): Focused on community service and social outreach, SGS provides a platform for students to engage in volunteering activities and make a positive impact on society.
- **Students' Research Council** (SRC): Focused on developing a community of researchers and innovators amongst the students.
- ECO Clubs: Centred around environmental conservation and sustainability, these clubs organize tree planting drives, awareness campaigns, and eco-friendly initiatives to promote a greener campus.
- Gyan- The Quiz Club: Offering intellectual challenges through quiz competitions, Gyan aims to sharpen minds and broaden knowledge.
- SAE INDIA Collegiate Club: Nurturing automotive enthusiasts, this club provides hands-on experience in automobile engineering and organizes vehicle design competitions.
- Fine Arts Club: Serving as a canvas for artistic expression, members engage in painting, drawing, and various creative endeavours to showcase their talents.
- Science Club: A gathering place for science enthusiasts to explore and discuss various scientific phenomena, conduct experiments, and promote scientific thinking.

- Rotaract Club: Focused on leadership development and community service, Rotaract is a platform for young leaders to initiate and participate in social projects.
- Readers Club: For literature enthusiasts, this club offers a space to discuss and enjoy literary works, from classics to contemporary fiction.
- Red Ribbon Club (RRC): Playing a vital role in spreading awareness about HIV/AIDS, RRC promotes a healthy and responsible lifestyle among students.
- Youth Red Cross (YRC): Involved in humanitarian activities, YRC organizes blood donation drives, health camps, and disaster relief programs.
- Citizen Consumer Club (CCC): Educating students about their rights and responsibilities as consumers, CCC empowers them to make informed choices.
- Film Club: Allowing film enthusiasts to delve into the world of cinema, watching and discussing films from various genres and eras.
- Study Circle: Fostering collaborative learning and peer support, Study Circle helps students excel in academics through group study sessions.
- Youth Parliament: Providing a platform for students to engage in mock parliamentary debates, developing their oratory and leadership skills.
- Tamil Mandram: Organizing events, discussions, and cultural programs for the promotion of Tamil language and culture.
- International Education Centre: Assisting students in exploring international study opportunities and preparing them for global education.
- Computer Society of India (CSI): Bringing together tech enthusiasts to discuss emerging technologies, share knowledge, and organize tech-related events.

- National Cadet Corps (NCC): Instilling discipline, leadership, and patriotism through various training programs.
- National Service Scheme (NSS): Promoting community service and social awareness, NSS encourages active participation in volunteer activities.
- Institute of Electrical & Electronics Engineers (IEEE): Focused on advancing technology for the benefit of humanity, IEEE hosts technical seminars, workshops, and competitions.
- Indian Society of Technical Education (ISTE): Fostering professional development by organizing technical events and conferences.

The departments nurture diverse student associations across various disciplines to promote academic engagement and extracurricular activities. **IGNITE**, the Association of Science and Humanity, encourages students to explore fundamental sciences and humanities through collaborative initiatives. **INFOBEE**, the Association of IT Technical, focuses on enhancing technical expertise and innovation in the field of Information Technology. **SPECTRUM**, the Association of ECE, aims to develop skills and knowledge among Electronics and Communication Engineering students through hands-

on activities and events. **INVICTUS**, the Association of AI & DS, nurtures talents in Artificial Intelligence and Data Science, fostering research and real-world applications. **AVERA**, the Association of EEE, provides a platform for Electrical and Electronics Engineering students to engage in technical and professional development. **BEAVERS**, the Association of Civil Engineering, emphasizes sustainable design and infrastructure development. **COMPYOUTH**, the Association of MCA, cultivates programming skills and IT solutions through workshops and competitions, preparing students for dynamic careers in computer applications.

3.13. Councils and Committees at MCET

3.13.1. Governing Council

The governing council approves the strategic plan, vision & mission, short-term and long-term goals and the budget based on the strategic plan. The governing council ensures that all decisions on the matters such as admission quality, new programs offered, infrastructure, teaching- learning process and placement activities are made to accomplish the vision and mission of the institution.

Table 3.4: Members of the governing council of MCET

Sl. No.	Name & Address of the Member	Position
1.	Dr. M. Manickam, M.Sc., M.B.A. Executive Chairman Sakthi Sugars Limited, Coimbatore - 641 018	Chairman
2.	Thiru. M. Balasubramaniam, M.Com., M.B.A. Managing Director, Sakthi Finance Limited, Correspondent, Kumaraguru College of Technology, Saravanampatti, Coimbatore-641 035	Vice Chairman
3.	Thiru. M. Harihara Sudhan, B.E., MS., Executive Director, ABT Limited , Coimbatore 641 018	Correspondent

Sl. No.	Name & Address of the Member	Position
4.	Dr. B.K. Krishnaraj Vanavarayar, B.Com., B.L. Chairman, Kumaraguru College of Technology Saravanampatti, Coimbatore – 641 035	Nominee of Management
5.	Thiru. M. Srinivaasan, B.E., M.B.A. (USA) Managing Director Sri Chamundeswari Sugars Limited No. 88/5, Richmond Road, Bangalore – 560 025	Nominee of Management
6.	Dr. C. Ramaswamy, M.E., Ph.D. Secretary, NIA Educational Institutions Pollachi – 642 003	Nominee of Management
7.	The Regional Officer Southern Regional Office All India Council for Technical Education Shastri Bhavan, 26, Haddows Road Chennai – 600 006	Nominee of AICTE
8.	Dr. D. Padmini, M.E., Ph.D. Professor, Department of Civil Engineering Government College of Technology, Coimbatore – 641013	Nominee of Anna University, Chennai
9.	The Commissioner of Technical Education Directorate of Technical Education Guindy Nominee of Chennai - 600025	Nominee of the State Government
10.	Dr. J. Jeyanthi, M.E., Ph.D. Professor & Head Department of Industrial Bio-Technology Engineering Government College of Technology Coimbatore - 641013	Nominee of the State Government
11.	Dr. Amal Kanti Bera, M.Sc., Ph.D. Department of Bio Technology (Bhupat and Jyoti Mehta School of Biosciences), Indian Institute of Technology Madras, Chennai	Nominee of the University Grants Commission
12.	Dr. A. Senthilkumar, M.E., Ph.D. Dean (A&A) & Senior Professor/EEE Faculty of Electrical and Electronics Engineering Dr. Mahalingam College of Engineering & Technology, Pollachi – 642 003.	Nominee of the Faculty at the level of Professor
13.	Mr. N. Karthikeyan, M.Sc., M.Tech. Assistant Professor (SS)/Physics Faculty of Science and Humanities Dr. Mahalingam College of Engineering & Technology, Pollachi – 642 003.	Nominee of the Faculty at the level of Assistant Professor

Sl. No.	Name & Address of the Member	Position
14.	Dr. P. Govindasamy, M.E., Ph.D. Principal, Dr. Mahalingam College of Engineering and Technology, Pollachi – 642 003	Member-Secretary

3.13.2. Academic Council

The Academic Council is responsible for all academic activities such as, framing the academic policy, approval of courses, regulations, curriculum and syllabus. The council will involve faculty at all levels, other experts and representatives of University and the Government.

Table 3.5: Members of the academic council of MCET

Sl.No.	Designation	Name	Contact Details
1.	Nominee of Governing Council	Dr. C. Ramaswamy	Secretary, NIA Educational Institutions, Pollachi.
2.	Chairman of Academic Council	Dr. P. Govindasamy	Principal, MCET, Pollachi.
3.	Nominee of University	Dr. M. Saravanakumar	Dean, Anna University, Regional Campus Coimbatore Maruthamalai Main Road, Coimbatore 641046
4.	Nominee of University	Dr. D. Padmini	Professor and Head Department of Civil Engineering Government College of Engineering Bodinayakannur 625582
5.	Nominee of University	Dr. R. Malayalamurthi	Principal, Department of Electrical and Electronics Engineering Government College of Engineering Salem 636011
6.	Industrial Expert	Mr.Srinath Gururajarao	Senior Vice President Human Resources Simple Energy, Bangaluru, Karnataka
7.	Legal Expert	Mr. P. SankarajaPandian	Vice President, Taxation and internal Auditing, Sakthi Sugars, Coimbatore.
8.	Members	Dr. A. Senthilkumar	Dean- Academic & Autonomous, Senior Professor – Electrical and Electronics Engineering MCET- Pollachi
9.		Dr. S. Ramakrishnan	Dean – Research & Innovation Senior Professor – Information Technology MCET – Pollachi

Sl.No.	Designation	Name	Contact Details
10.		Dr. Calvin Sophistus King	Dean – Industry Relations & Talent Development) Senior Professor - Automobile Engg. MCET, Pollachi.
11.		Dr. Rama Thirumurugan	Professor & HOD i/c - Mechanical Engineering & Mechatronics Engineering MCET, Pollachi.
12.		Dr. D. Shanmugam	Professor & HOD – Automobile Engineering, MCET, Pollachi.
13.		Dr. R. Sudhakar	Professor & HOD - Electronics and Communication Engineering, MCET, Pollachi.
14.		Dr. K. Vijayakumar	Professor & HOD - Electrical and Electronics Engineering, MCET, Pollachi.
15.		Dr. L. Meenachi	Associate Professor & HOD i/c - Information Technology, MCET, Pollachi.
16.		Dr. D. rSivaganesan	Professor & HOD - Computer Science and Engineering, MCET, Pollachi.
17.		Dr. J. Ramprasath	Associate Professor & HOD i/c – Artificial Intelligence and Date Science , MCET – Pollachi
18.		Dr. K.N. Vijeyakumar	Professor & HOD i/c – Artificial Intelligence & Machine Learning & Cyber Security MCET – Pollachi
19.		Dr. L. Chitra	Associate Professor / EEE & HOD-S&H MCET – Pollachi
20.		Dr. R. Muthusami	Assistant Professor (SG) & HOD i/c Computer Applications, MCET, Pollachi.
21.	Members	Dr. B. Kannapiran	Professor ECE & Head –IQAC MCET - Pollachi
22.		Dr. B. Vinoth Kumar	Professor, Electronics and Engineering MCET – Pollachi
23.		Dr. M. Thirunavukkarasu	Associate Professor & DCoE Automobile Engineering, MCET, Pollachi.
24.		Dr. T. Ramkumar	Associate Professor Mechanical Engineering MCET – Pollachi

Sl.No.	Designation	Name	Contact Details
25.		Dr. B. Saravanakumar	Associate Professor Science and Humanities – Physics MCET – Pollachi
26.		Ms. S. Santhi Shanmugam	Laboratory Assistant, Electronics and Communication Engineering, MCET, Pollachi.
27.	Student Members	Selvi. G. Rithika (20BCS041)	IV Year CSE, MCET,Pollchi
28.		Selvan K. Hariram (20BCE015)	IV Year Civil , MCET,Pollchi
29.		Selvi. D. Sugi Varshini (20BEE004)	IV Year EEE, MCET,Pollchi
30.		Selvi R. Srimathy (727622MCO004)	II Year PG -COS, MCET,Pollchi
31.		Selvi. S Lekha (727622MCA025)	II Year MCA, MCET, Pollchi
32.	Member Secretary	Dr. PS. Kothai	Professor & HOD-Civil Engineering & COE MCET, Pollachi.

3.13.3. Finance Committee

The finance committee advises the governing council on financial matters. It prepares income and expenditure statements for fixation of tuition and others fees of the college. Following is the finance committee constituted comprising of faculty members and other key stakeholders.

Table 3.6: Members of the finance committee of MCET

Sl. No.	Name & Designation	Position in the Committee
1	Dr. C. Ramaswamy, Secretary	Nominee of the Management
2	Dr. P. Govindasamy Principal	Chairman of the Board
3	Dr. A. Senthilkumar, Dean - Academic and Autonomous	Member
4	Dr. S. Ramakrishnan Dean- Research & Innovation	Member
5	Mr. K. Sakthivel, Manager/Central Office	Representatives from the Office Administration
6	Mr. R. Murugavel	

	Dy. Manager/MCET Office	
7	Dr. PS. Kothai Professor-Head-Civil & Controller of Examinations	Member Secretary

3.13.4 Board of Studies

The board of studies is the basic constituent of the academic system of the college. Its functions include: framing the curriculum and syllabi, reviewing and updating it periodically, introducing new courses, determining details of continuous assessment. Totally the institution has 11 board of studies and a sample is shown here below.

Table 3.7: Members of the board of studies of electronics and communication engineering department of MCET

Sl.No.	Name	Designation and Affiliation	Category	Nature
1.	Dr.R.Sudhakar	Professor &HOD ECE, MCET	Chairman	Head of the Department
2.	Dr. V. Thirunavukkarasu	Professor & HOD ECE Department GCE, Bodinayakannur	University Nominee	Nominated by University
3.	Dr. D. Sivaraj	Assistant Professor (Sl.Gr) ECE Department PSG Tech, Coimbatore	Academic Expert	Nominated by Institution
4.	Mr. S. Muthukumar	Principal Application Engineer, Cadence Design System Pvt. Ltd. Bangalore	Industry Expert	Nominated by Institution
5.	Mr. K. Boopathi Kannan	Technical Specialist, Continental Automotive India Pvt Ltd, Bangalore	Alumni Member	Nominated by Institution
6.	Dr. V.K. Sudha	Professor ECE, MCET	Convener-UG	Faculty Member
7.	Dr. S. Bharathi	Associate Professor ECE, MCET	Convener-PG	Faculty Member
8.	Dr. B. Kannapiran	Professor ECE, MCET	BOS member	Faculty Member

Sl.No.	Name	Designation and Affiliation	Category	Nature
9.	Dr. N. Saravanakumar	Associate Professor ECE, MCET	BOS member	Faculty Member
10.	Dr. R.S. Venkatesan	Assistant Professor (SG) ECE, MCET	BOS member	Faculty Member
11.	Ms. R. Sherine Jenny	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
12.	Dr. G. Soundarya	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
13.	Dr. C. Moorthy	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
14.	Ms. N. Sugirtham	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
15.	Ms. T. Sathiyapriya	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
16.	Mr. V. Gurunathan	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
17.	Mr. A. Shafeek	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
18.	Mr. K.R. Gokul Anand	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
19.	Ms. S. Thilagavathi	Assistant Professor (SS) ECE, MCET	BOS member	Faculty Member
20.	Ms. Santhi Shanmugam	Lab Assistant ECE, MCET	BOS member	Faculty Member
21.	Ms. P.M. Preethi	IV ECE, MCET	Student	Student Member

3.13.5. Major Committees at MCET

1. Result Passing Board
2. Program Assessment Committee
3. Planning and Monitoring board
4. Anti-Ragging Committee
5. Academic and Administrative Audit Committee
6. Library Advisory Committee
7. Autonomous Core committee
8. Research and Development Cell
9. Grievance Redressal Committee
10. POSH Committee

3.13.6. Internal Quality Assurance Cell

National Assessment and Accreditation Council (NAAC) proposes that every accredited institution should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance measure. Since quality enhancement is a continuous process, the IQAC is a part of an institution's system and work towards realizing the goals of quality enhancement and sustenance. The prime task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in the performance of institutions. The IQAC of MCET makes a significant and meaningful contribution in the accreditations. During the post-accreditation period, the IQAC channelizes the efforts and measures towards academic excellence. IQAC at MCET has the following functions:

- Development and application of quality benchmarks/parameters for the various academic and administrative activities.
- Facilitating the creation of a learner-centric environment conducive for quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process
- Arrangement for feedback responses from students, parents and other stakeholders on quality-related institutional processes
- Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles
- Documentation of the various programs / activities
- Acting as a nodal agency for adoption and dissemination of good practices
- Development and maintenance of Institutional database through MIS

Table 3.8: Members of quality assurance committee of MCET

Sl. No	Composition Criteria Specified by NAAC	No. of Members	Members	Designation
1.	Management Representative	1	Dr. C. Ramaswamy	Secretary
2.	Chairperson – Head of the Institution	1	Dr. P. Govindasamy,	Principal
3.	A few senior administrative officers	3	Dr. A. Senthilkumar Dr. S. Ramakrishnan Dr. Calvin Sophistus King	Dean - Academic and Autonomous Dean- Research & Innovation, Dean- Industry Relations & Talent Development
4.	One of the senior teacher as the coordinator of the IQAC.	1	Dr. B. Kannapiran	Professor/ECE & Head IQAC
5.	Three to Eight teachers	4	Dr. M. Thirunavukkarasu Dr. N. Suba Rani Dr. K. Hariharan Dr. S. Krishnakumar	Asso.Prof/Auto. Asso.Prof. CSE Associate Professor Mech Assistant Professor (SS)/Civil
6.	One/two nominees from Alumni/ Local Society/Student	1	Mr. N. Rahul Kumar	Alumni Mr.N.Rahul Kumar, Assistant Engineer, Building Construction & Maintenance, PWD, Valparai. (2014 Passed out)
		1	Selvi. S.B. Harshitha	Student Roll No : 20BEC003 Final Year ECE
7.	One/Two nominees from Employers/Industrialists /Stakeholders	1	Mr. R. Ravikumar	Employers /Industrialists General Manager-Operations Roots Multiclean Ltd., Kovilpalayam Post, Pollachi, Coimbatore.

3.14. SWOC of the Institute

Strengths

- Effective implementation of the **Choice Based Credit System (CBCS)**
- Effective implementation of **Outcome-Based Education (OBE)**
- Curriculum is **industry-driven**, featuring **elective courses** aligned with specific domains

- Proactive management with **legacy of almost SEVEN decades** in educational service
- Seven departments are recognized as **research centres** by Anna University
- Quality **research publications, patents, and consultancy** activities
- Robust **library facility** supporting academic and research activities
- NBA **accreditation** for eligible undergraduate programs.
- **20 Skill Centres**
- THREE **techno commercial ventures** on campus providing opportunities for faculty and students
- Talent and skill development systems through clubs, associations, and chapters, coupled with strong **industry partnerships** and Memorandums of Understanding (MoUs)
- **Alumni involvement** in system building, knowledge sharing, project facilitation, and talent pool development
- Initiatives such as Sakthi-Providing Urban Amenities in Rural Area (**Sakthi-PURA**), MCET-Unnat Bharat Abhiyan, Saansad Adarsh Gram Yojana, as well as active involvement in social organizations like NSS, NCC, Youth Red Cross (YRC), and Red Ribbon Club (RRC) clubs.

Weaknesses

- Regulatory constraints for full scale research and **research** programs.
- Regulatory constraints in **evaluation and grading** system**.**
- Restriction in leveraging **full potential of NEP 2020**
- Restrictions for **joint degree programs.**

- Limited number of students from **diverse backgrounds**, especially other states and countries.
- Majority of students hailing from **rural backgrounds prioritizing placements** over pursuing higher studies and entrepreneurship as career options.
- Less **funding from non-governmental agencies**, hindering the execution of research projects.
- Unable to **exchange credits** with International universities.
- Unable to offer semester **abroad program**.

Opportunities

- Possibility to align the curriculum with **NSQF**, ensuring that educational programs are in sync with national skill standards fostering employability**.**
- Inclusion of inter-disciplinary and multi-disciplinary courses in the curriculum, aligning with the principles of the **National Education Policy (NEP) 2020** to provide a holistic and diverse educational experience.
- Scope for emerging technologies, such as virtual reality, into the curriculum to enhance the learning experience and equip students with skills relevant to the **evolving technological landscape**.
- Potential **partnerships with industry for collaborative research** projects and internships through centres, bridging the gap between academia and industry.
- Leveraging technology to **address community and societal issues**, particularly in rural and urban areas, showcasing the institution's commitment to social responsibility and impactful contributions**.**

- Offering **mentorship to other budding institutions** in the region, sharing expertise and best practices to contribute to the overall improvement of the education ecosystem.
- Initiating the **digitization of campus infrastructure**, enhancing the technological capabilities of the institution for improved administrative efficiency and academic support**.**
- Establishing **collaborations with** other technical and life science **institutions, both locally and internationally**, to facilitate knowledge sharing and joint research initiatives for mutual growth.
- Strengthening partnerships with **international universities** to encourage more student and **faculty exchanges, joint research projects, and global exposure**, enhancing the institution's global standing and enriching the learning experience**.**
- **Active participation and contribution in** Atmanirbhar Bharat Abhiyan, Viksit Bharat 2047 and others.

Challenges

- Employers' preference of skills over degrees.
- Changing learning patterns and demand for newer pedagogies
- Dynamically **changing industry demands** on the knowledge and skills of students.
- Strong **inclination of parents and prospective students** towards certain disciplines and programs.
- **Constraints in processes and methods** due to the affiliation system.

4. Education Scenario

India: The Indian government's push for manufacturing, digitalization, and urban development through various schemes like ‘Make in India’, ‘Digital India’, ‘Smart cities’ ‘Viksit Bharath’ and ‘Atmanirbhar Bharat’, etc., requires many skilled workers. Higher education is crucial in meeting this demand, but there aren't enough qualified graduates coming out of higher education institutions. This is a challenge for achieving India's economic goals. Cities like Chennai or Coimbatore are potential smart cities and centre of India’s start-ups and growth stories. Relatively **sub-urban of Coimbatore like Pollachi has a tremendous scope of industrial growth**. Along with industrial growth will arise the need for strong research and development support. The employees of the industries will also seek to improve their knowledge and skills continuously. This necessitates the availability of higher educational institutions closer to the pockets of growth.

In India today there are about 1200 universities. Private sector supporting the government in the higher education space is utmost important to sustain the growth of India. The GER in higher education at the all-India level has increased from 24.6% in 2017-18 to 28.4% in 2021-22. In Tamil Nadu it is close to 47%. Both male and female GERs have been relatively similar, with a marginal difference in favour of females. NEP 2020 has set a target of 50% GER for India by 2035.

Establishing more Higher Education Institutions (HEIs), strengthening existing institutions to accommodate more students, focusing on improving the quality of education and relevance of programs and ensuring equal opportunities for all demographic groups are some of the initiatives of the Government of India (GoI).

Table 4.1: Deemed to be universities in the vicinity of Pollachi

Sl.No.	Name of the University	Distance from MCET
1	Karpagam Academy of Higher Education, Coimbatore	34 km
2	Karunya Institute of Technology and Sciences, Coimbatore	68 km
3	Amrita Vishwa Vidyapeetham, Coimbatore	46 km
4	Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore	48 km
5	The Gandhigram Rural Institute, Dindigul	126 km

Pollachi: The education district has **87 higher secondary schools in education district**. Establishing a prominent institution in Pollachi could **increase the Gross Enrolment Ratio** of the local education district by reducing the need for students to travel long distances for higher education. **Every year more than 1000 students** secured admission at Dr. Mahalingam College of Engineering and Technology from **all over Tamil Nadu**. Interestingly, a one-third of these students hailed from Coimbatore itself, while the remaining **two-thirds came from neighbouring districts like Tirupur, Dindigul, and Erode**. This trend reflects the **scarcity of prominent institutions** in this area which serve the aspirations of students. The proposed Deemed to be university will benefit from not only the view point of **strategic location** but also from the view point of **pleasant climate** conducive for learning and research. While there are no other technical institutions in the immediate vicinity, particularly towards the south, we aim to contribute as a private partner in improving the Gross Enrolment Ratio (GER) of India by attracting **enrolments from Tamil Nadu and other parts of the country**.

Institution: Dr. Mahalingam College of Engineering and Technology (MCET) has consistently demonstrated a progressive approach in its processes and methods. Established in 1998 as an affiliated college, MCET transitioned to an autonomous institution in 2011. This autonomy has allowed the college to

innovate and enhance its contributions to engineering education in the region. Over the years, ten batches of students have graduated under the autonomous system, benefiting from a curriculum that emphasizes student-centricity and flexibility.

The autonomy has enabled MCET to tailor its programs to better meet the needs of its students and the industry. The college has introduced various initiatives aimed at improving the quality of education, such as updated curricula, industry collaborations, skill development and research opportunities. These efforts have significantly contributed to the institution's reputation for excellence in engineering education. However, despite the advantages of autonomy, MCET faces certain limitations due to its affiliation with a larger university system. These constraints hinder the college from fully implementing some of the unique features of the National Education Policy (NEP).

Institutional and industry partners have expressed a desire for greater flexibility in the college's offerings and mechanisms. They seek a more responsive approach to curriculum development and program delivery, which would allow the institution to quickly adapt to changing industry needs and technological advancements.

In conclusion, while MCET has made significant strides as an autonomous institution, further flexibility and independence are needed to fully realize its potential and align with national educational goals and unique features of the NEP - 2020.

5. Strategic Planning Process

MCET followed a systematic strategic planning process indicated below in preparing itself to transition into a deemed to be university.

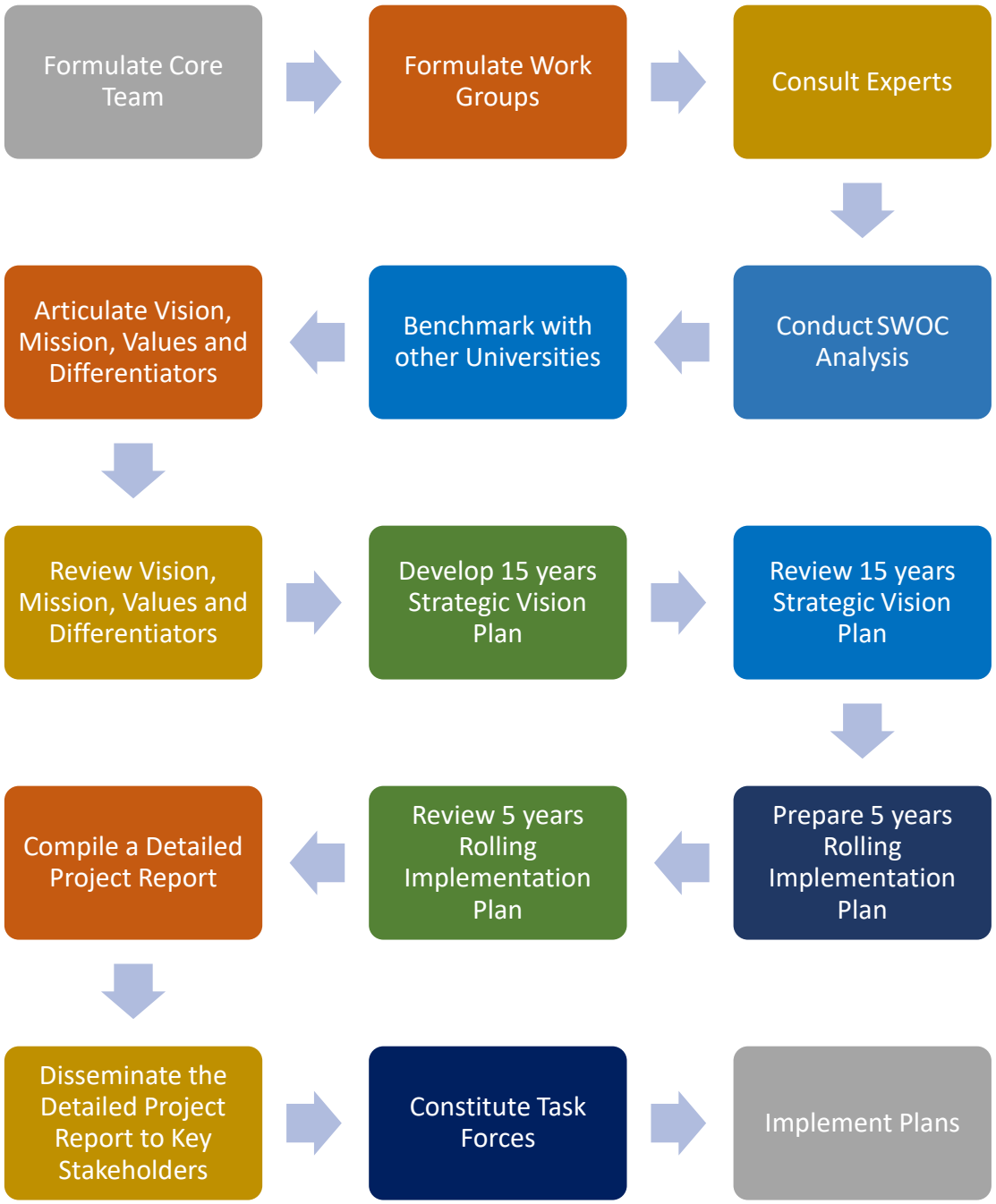


Figure 5.1: Steps in the strategic planning process

6. Proposed Deemed to be University (DU)

The proposed deemed to be university will be named "**Mahalingam Academy of Higher Education and Research**".

MAHALINGAM

Academy of Higher Education and Research

(Deemed to be UNIVERSITY)

Established u/s 3 of UGC Act 1956

6.1. Vision and Mission

Vision

Emerge as a **"institute of eminence in education, research, and outreach for improving quality of life globally"**.

Mission

During the next 15 years, DU through its Academics, Research, and Outreach will

1. Deliver world class graduate, post graduate and research programs
2. Structure programs to promote interdisciplinary, multidisciplinary, and transdisciplinary approaches
3. Offer global level education through partnerships
4. Contribute to the global fraternity through impactful research
5. Promote an ecosystem of experimentation, innovation and growth
6. Offer state of art infrastructure, high quality services and amenities
7. Attract top quality talent as students and faculty
8. Participate in community development projects
9. Ensure achievement of sustainability development goals
10. Transfer technology for societal development

The mission of DU will translate to:

World Class Higher Education: The proposed deemed to be university will offer undergraduate, post-graduate, and research degree levels, leading to excellence and innovations in various branches of knowledge.

Multi-disciplinary Engagement: The proposed deemed to be university will engage in **inter-disciplinary, multi-disciplinary, and later trans-disciplinary teaching and research**, in addition to domain-specific specialization. It will provide a holistic education in various faculties including science, engineering, technology, education, social sciences, arts, humanities, health, and other disciplines.

Flexible and Innovative Curriculum and Assessments: The proposed deemed to be university will *provide a flexible and innovative curriculum*, which includes credit-based courses and projects in areas such as community engagement, environmental education, value-based education, etc. The proposed deemed to be university will actively **deploy the National Education Policy 2020**.

High-Quality Teaching and Research: The proposed deemed to be university will *continuously increase the quality of teaching and research adopting newer pedagogies and educational technologies* that are recognized nationally and globally.

National and International Partnerships: The proposed deemed to be university will actively seek to *establish more mutually beneficial partnerships at the national and international level* to benefit multiple stakeholders through education and research.

Research and Teaching Intensive Institution: The proposed deemed to be university will **transform into research and teaching intensive institution** over time with a strong support system for research and innovations in teaching learning methods.

Research and Innovation Focus: The proposed deemed to be university will focus on research and innovation by *setting up more start-up incubation centres in frontier areas of research*, fostering greater industry-academic linkages, and promoting inter-disciplinary research.

State of the Art Infrastructure: The proposed deemed to be university will *constantly invest in developing contemporary and futuristic infrastructure* required to support the academic, research and outreach activities by augmenting physical, digital and human resources.

Talent Development: The proposed deemed to be university will recognize, identify, and foster the unique capabilities of each faculty and student, promoting holistic development of individuals and communities.

Community Development: The proposed deemed to be university with *increasingly support the local community through projects* contributing to national level programs of the Government of India, fulfilling the make in India and global themes.

Sustainable Development: The proposed deemed to be university will **actively promote the adoption of UN SDGs** ensuring contribution to the nation and the world.

Social Transformation: The proposed deemed to be university will contribute to social transformation through *socially responsive teaching, learning, research, and fieldwork*.

6.2 Core Values

Care: A value that instills in individuals the eagerness to help others in professional and personal lives, thereby developing a community that understands each other's needs. This will extend to nature and environment as well, resulting in wellbeing of individuals, organizations and communities.

Diversity: A value that enriches the educational experience, promotes equity and inclusion, and prepares learners to be successful in an increasingly interconnected world. The institution will also ensure diversity in its perspectives, people, and processes.

Justice: A value that creates an environment where all members of the institution and extended community feel empowered, supported, and motivated to learn and grow. This not only benefits individual students but also contributes to the advancement of a more just and equitable society.

Sustainability: A value that fulfils the mission of advancing knowledge, fostering innovation, and promoting the well-being of people and the planet. The institution will ensure sustainability in its processes and products and support through various initiatives towards UN-Sustainable Goals: SDG3, SDG4, SDG9, SDG13 and SDG17.

6.3. Key Differentiators

Flexi Credits: Academic flexi credit system is a framework used by educational institutions to allow students greater flexibility in designing their academic paths. Students earn credits for completing courses, projects, or other learning experiences. These credits accumulate over time in the **Academic Bank of Credits (ABC)** and contribute to their overall academic progress.

Educative Assessments: Auditive assessments focus on evaluating past learning, educative assessments prioritize ongoing learning and improvement: intended for better learning rather than just grading assignments. Assessments will aim to enhance student learning, encourage reflection, application, and goal setting. High quality assessments supported by suitable methods and tools such as **open book examinations, relative grading, criteria-based rating with rubrics** will provide valuable feedback beyond mere grading and promote product failure.

Credentials and Badges: Credentials and badges enhance knowledge, skills, and career prospects of students. **Micro credentials with credits** will be encouraged leading to contemporary competence development in students. IBM skills build digital credentials, agile explorer badge, cybersecurity awareness badge, IEEE credentials, PMI credentials, AutoDesk certification are few examples.

Earning with Learning: Internships with stipends provide a win-win situation for students and employers, fostering skill development and professional growth. Summer internships, typically conducted during summer breaks (May to July), winter internships, held during winter breaks (December to January), part-time internships, where students work part-time during the academic year and virtual internships which are **remote internships that allow**

flexibility will be with credits and promoted. **Vocational education** with D.Voc. and B.Voc. programs bridge the gap between education and industry needs, emphasizing practical skills and employability. Practical training, industry exposure, and skill development in specific vocations will be achieved through strong industry academia partnerships.

Global Immersion: Global immersion programs foster cultural exchange, skill development, and collaboration across borders. **Semester abroad programs** will allow students to spend a semester studying in another country while still earning credits toward their intended degree. It will be an opportunity to explore new cultures, gain global perspectives, and enhance overall academic experience. **Twinning program** is an educational arrangement where the university will collaborate with partner institutions abroad. Students will get **international education at a lower cost**.

Continuing Education: Continuing education programs provide opportunities for adult learners to enhance their knowledge, acquire new skills, and earn qualifications beyond traditional full-time education. Formats include weekly classes, flexible short courses, single-day events, weekend workshops, lecture series, and certifications. All these offerings with **credits/professional development units** leading to professional development will be open for **public to learn and grow**.

Research Internship: Interns apply theoretical knowledge gained in academic settings to real-world scenarios, fostering critical thinking, and problem-solving skills, and enhancing their understanding of the research methodology. In research internships at institution, participants **collaborate with professors, researchers, and fellow students on ongoing research projects**. Benefits include exposure to cutting-edge research, networking

opportunities, and access to resources. Whereas in research internships at industry which occur in private companies, startups, or corporate research centres, participants work on **industry-specific projects related to product development, process improvement, or innovation**. Benefits include practical experience, exposure to industry practices, and potential job offers.

Faculty Sabbaticals: Faculty sabbaticals are valuable opportunities for faculty members to take a break from their regular teaching and administrative duties to **engage in scholarly activities, research, or other professional development**. Faculty of the proposed deemed to be university will be encouraged to avail sabbaticals also faculty members from other universities will be hosted during their sabbaticals.

Faculty – Student – Institute Startup/Spinoff: Student **startups/Spinoffs in partnership with faculty and support from the institution** is a great way to promote innovation and new product development in the campus. National innovation and startup policy and its deployment supported by the institution will nurture the ecosystem to produce startups and later support their growth.

Credit Based Fees Structure: Credit-hour or course-based fee structure, where the **tuition fee is calculated based on the number of credit hours a student enrols** in will encourage students to consider their course load carefully and aligns fees with actual academic workload. Students can choose the number of courses that best suits their academic goals. Paying per credit allows students to optimize their expenses. Fees are directly tied to the educational experience. This will also **support the implementation of NEP 2020, especially multiple entry and multiple exit**.

6.4. Organizational Structure of DU

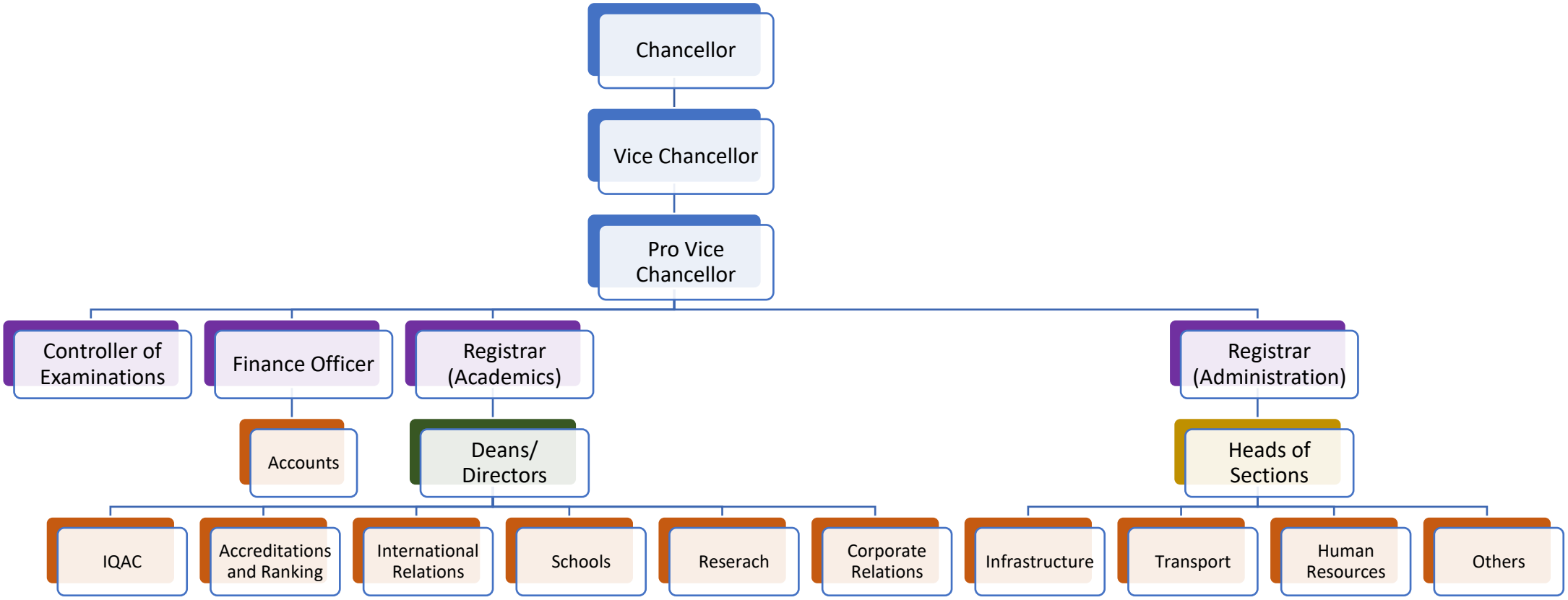


Figure 6.1: Organizational structure of the proposed deemed to be university (DU)

6.5. Councils, Committees and Cells of DU

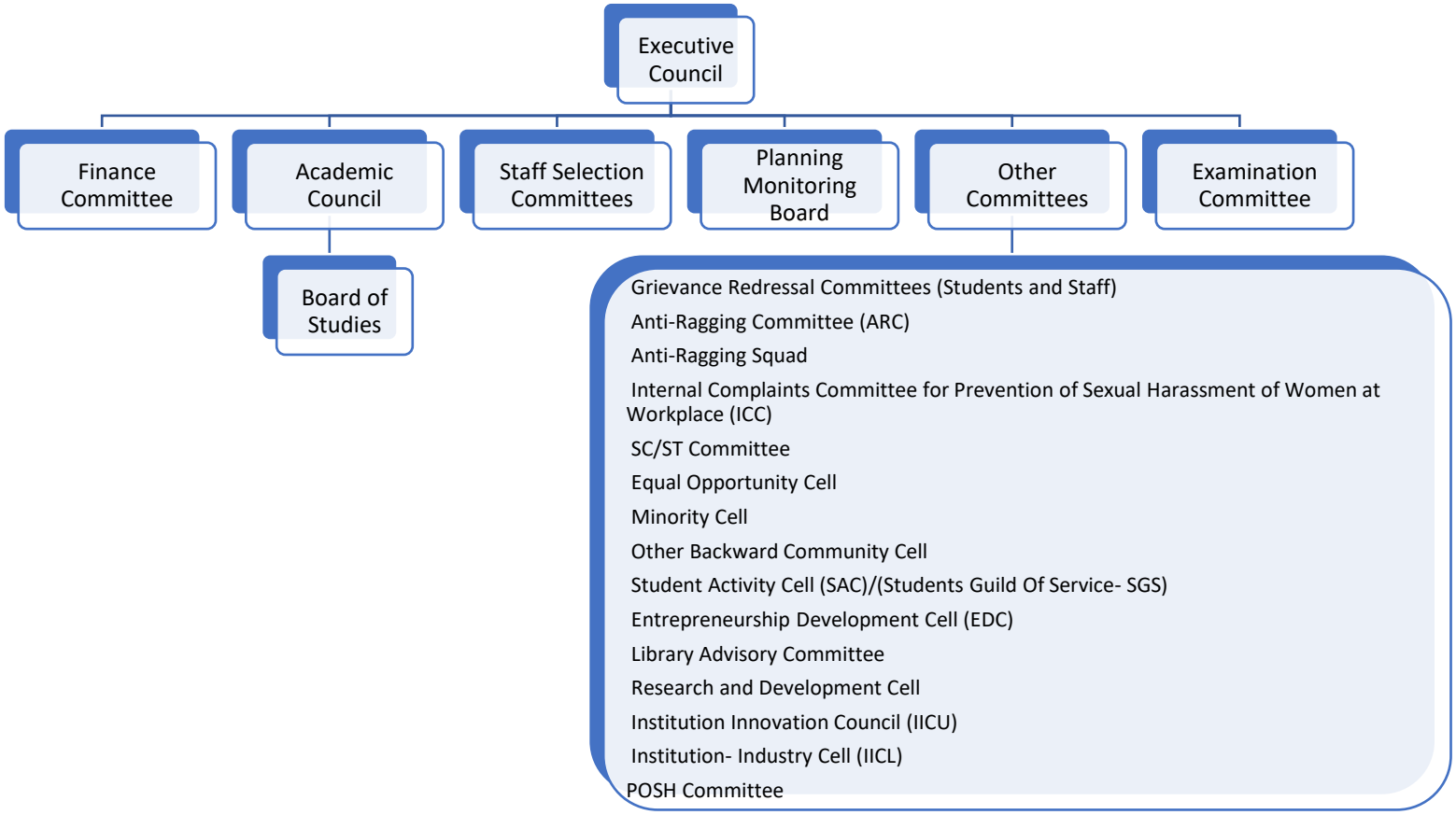


Figure 6.2: Councils, committees and cells of the proposed deemed to be university (DU)

7. Fifteen Years Strategic Vision Plan and Five Years Rolling Implementation Plan

The 15-year Perspective and 5-year Rolling plans detailed here below address 11 priority areas, each with strategic goals, action points, and implementation targets for comprehensive university planning and management.

7.1. Academic Plan

7.1.1. Academics: Achievements and Strengths of MCET

MCET offers 12 undergraduate and 6 post graduate programs at present. **SEVEN, B.E./B.Tec. programs are accredited by the National Board of Accreditation (NBA) under Tier-I category**, underscoring its strong academic foundations.

Central to MCET's educational framework are its **20 Skill Centres**, strategically designed to foster deep engagement with cutting-edge technologies and skill development. These centres serve as hubs for industry collaboration, enhancing educational offerings and preparing graduates to tackle contemporary challenges in their respective fields.

MCET's commitment to excellence has garnered notable recognition, positioning it among the **top 7% of institutions in Tamil Nadu** as ranked by Anna University, Chennai. Additionally, a Dataquest survey placed MCET **within the Top 50, among India's private institutions**, further validating its standing in the higher education landscape. The institution's commitment to innovation and quality education was reaffirmed with a commendable "**Performer" band in ARIIA – 2021** by the Ministry of Education.

MCET was selected as a mentor institution under the **UGC-PARAMARSH scheme**. This initiative aims to guide neighboring institutions in achieving NAAC accreditation, supported by a substantial financial aid of Rs. 30 lakhs. Such recognition highlights MCET's leadership role in fostering educational excellence beyond its campus borders.

In alignment with the **National Education Policy 2020 (NEP 2020)**, MCET has adopted a Flexible Curriculum based on the AICTE model. This curriculum encourages skill development, creativity, innovation, and holistic growth among students. Through options like Minor Specialization and Honors, students can earn additional credits by engaging with courses offered on platforms like **SWAYAM/NPTEL**. These courses, approved by the Board of Studies, enhance the depth and breadth of the undergraduate experience at MCET.

MCET's educational philosophy, grounded in **Outcome Based Education (OBE)** and reflected in its **Teaching Learning Centre (TLC)**, ensures rigorous alignment with **Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs)**. These outcomes, systematically monitored and displayed transparently on the institute's website, provide stakeholders including faculty and students with clear benchmarks for educational success.

Product and system-based learning model implemented at MCET will pave the way for interdisciplinary learning experiences that are based on product development hence supporting the make in India theme. This will further enhance the opportunities for multi and transdisciplinary education.

7.1.2. Academics: Fifteen Years Strategic Plan for DU

Strategy for Academics

- **Consistently expand our portfolio of postgraduate and research programs, emphasizing multidisciplinary and transdisciplinary approaches.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in academics:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1.	**Establish Schools:** Establish diverse schools aligned with emerging national and global trends to provide, contemporary education.	✓	✓	✓
2.	**Skill Education:** Introduce courses that align with industry needs and NSQF levels to enhance employability and relevance in the job market.	✓	✓	✓
3.	**Learning Experience Design**: Develop the teaching and learning process based on the CDIO (Conceive – Design – Implement – Operate) framework, incorporating Learning Experience Design principles to enhance educational outcomes.	✓	✓	✓
4.	**Lifelong Learning Programs**: Offer certificate, diploma, and degree courses aligned with NSQF levels to	✓	✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
	facilitate continuous professional development, ensuring individuals can upskill throughout their careers.			
5.	**Examination Reforms:** Empower faculty to design both formative and summative assessments using diverse assessment methods, ensuring a comprehensive evaluation of student learning.	✓	✓	✓
6.	**Interdisciplinary Learning Paths:** Provide interdisciplinary programs to promote holistic learning and diverse skill acquisition, preparing students for a wide range of careers in emerging areas.		✓	✓
7.	**Flexible Admission and Progression:** Implement a system that allows students to enter and exit programs at various stages, in alignment with the flexibility outlined in NEP 2020.		✓	✓
8.	**Accessible Learning**: Enrol students through part-time or distance education modes, making education accessible to working professionals and those with other commitments.		✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
9.	**Recognition of Non-academic Achievements**: Acknowledge non-academic activities by awarding credits, fostering a holistic learning environment that values diverse experiences.		✓	✓
10.	**Tailored Electives:** Offer specialized elective courses that cater to diverse career aspirations and industry requirements, allowing students to customize their education.		✓	✓
11.	**Globally Recognized Credentials and Badges**: Promote micro-credentials with credits for contemporary competence development, enabling students to showcase specific skills and knowledge.		✓	✓
12.	**Cultural and Traditional Knowledge:** Integrate elements of the Indian knowledge system into the curriculum to provide a comprehensive and culturally relevant educational experience.	✓	✓	✓
13.	**International Accreditation:** Achieve international accreditation			✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
	and improve rankings to enhance global recognition.			
14.	**Anytime, Anywhere Learning**: Enable students to study at their own pace, accessing resources online or offline, offering flexibility to balance work, personal commitments, and education.			✓
15.	**Recognized Learning Achievements:** Recognize credits earned from other nationally accredited institution/ program.	✓	✓	✓

The strategic goals with respect to academics of DU will be achieved by:

Schools on Emerging Trends: Introducing interdisciplinary and multidisciplinary programs in existing departments and future schools that will focus on local, regional, national and global needs.

Academic Bank of Credits (ABC): Implementing a robust system for recognition of prior learning, credit accumulation, transfer, and redemption to enhance learning flexibility and recognize diverse educational achievements aligned with NEP 2020.

Multiple Entry and Exit in Academic Program: Offering flexible academic programs that allow students, working professionals to enter or exit at various stages, catering to personal and professional needs and promoting lifelong learning as mandated by NEP 2020.

Curriculum and Credit Framework: Creating a framework for all curricula and allocate appropriate credits matching with National Credit Framework (NCrF) to ensure consistency and quality of education.

National Higher Education Qualifications Framework (NHEQF): Designing curriculum with appropriate qualification levels, learning outcomes and standards that ensure global and national educational quality standards mapped through NHEQF.

SWAYAM & MOOCs: Hosting MOOCs through platforms like SWAYAM to large and extended community of learners who could be located off campus and experience personalised learning.

Digital Literacy and Skills: Providing training and resources to improve digital literacy and skills among students, educators and community ensuring effective use of digital tools and applications.

Faculty on the Indian Knowledge System: Establishing a department to promote teaching, learning and research in Indian knowledge system and introduce courses that incorporate Indian heritage and culture

Learning through Mother Tongue/Local Languages: Designing courses that support instruction in local languages, provide training for faculty to teach effectively in these languages by augmenting facilities at Language Centre.

7.1.3. Academics: Five Years Rolling Implementation Plan of DU

In academics, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Establish diverse schools aligned with emerging national and global trends to provide relevant, cutting-edge education and skills development.	1. Create necessary infrastructure and facilities for functioning of schools 2. Obtain approvals from statutory authorities 3. Establish the following schools 1st year 1. **School of Engineering and Technology** 2. **School of Wellness and Health Sciences** 2nd year 3. **School Liberal Arts and Sciences**	No. of schools	2	4	5	5	5
			No. of UG programs	12	12	12	12	12
			No. of PG programs	11	13	15	15	15
			No. of departments offering doctoral programs	12	14	16	16	16

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		4. **School of Agricultural Sciences** 3rd year 5. **School of Education** 4. Offer the following programs in **School of Engineering and Technology** **UG Programs** B.Tech. in 1. Mechanical Engineering 2. Civil Engineering 3. Automobile Engineering 4. Electronics and Communication Engineering 5. Electrical and Electronics Engineering						

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		6. Computer Science & Engineering 7. Information Technology 8. Artificial Intelligence and Data Science 9. Cyber Security 10. Artificial Intelligence and Machine Learning 11. Very Large-Scale Integration 12. Advanced Communication Technology **PG Programs** M.Tech. in 1. CAD/CAM 2. Structural Engineering 3. Embedded Systems and Technology						

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		4. Communication Engineering 5. Computer Science & Engineering 6. Electric Vehicles 7. Cyber Security 8. Master of Computer Applications **Ph.D. Program:** Engineering and Technology (12 departments) 5. Offer the following programs in **School of Wellness and Health Sciences** **PG Programs** M.D. in 9. Health Science M.Sc. in						

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		10. Yoga and Wellness 11. Bio Informatics **Ph.D. Program:** Wellness and Health Sciences (2 departments) 6. Offer the following programs in **School Liberal Arts & Sciences** 12. M.A. Liberal Arts 13. M.Sc. Sport Science **Ph.D. Program:** Liberal Arts and Sciences (2 departments) 7. Offer the following program in **School of Agricultural Sciences** 14. M.Sc. Agriprenureship **Ph.D. Program:** Agricultural Sciences (1 department)						

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		8. Offer the following program in **School of Education** 15. Master of Education **Ph.D. Program:** Education (1 department)						
2.	Introduce courses that align with industry needs to enhance graduates' employability and relevance in the job market.	1. Develop courses focused on employability/ entrepreneurship / skill development 2. Embrace curriculum structures that enables the students to up skill in core verticals or interdisciplinary verticals	Skill development courses	10	13	15	18	20
			Open electives	-	-	20	30	30
			Life skill courses	2	3	4	5	5
			Minor specialization courses	-	-	30	40	40
			Honours specialization courses	-	-	30	40	40
3.	Integrate lab-based activities into the	1. Identify emerging technologies and tools	Industry supported laboratories	-	40	50	60	60

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
	curriculum to enhance practical skills and real-world applications, ensuring students are job-ready as NSQF levels.	2. Collaborate with industries and national research laboratories 3. Invest on laboratory equipment, tools, infrastructure and maintenance	Sponsored research labs	-	-	1	2	3
			Funded projects	1	3	6	8	10
			In-house Internships for skill development	-	10	15	20	20
4.	Develop the teaching and learning process based on the CDIO (Conceive – Design – Implement – Operate) framework, incorporating Learning Experience Design principles to enhance educational outcomes.	1. Develop CDIO framework (explained in Annexure 1). 2. Deploying Learning Experience Design principles. 3. Utilize advanced ICT tools and smart classrooms to elevate the quality of learning experiences	No. of products developed through CDIO model	-	10	210	310	310
			No. of patent jointly published by students and faculty members	-	-	-	10	10
5.	Offer certificate, diploma, and degree courses		No. of certificate programs	1	2	3	5	15

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
	aligned with NSQF levels to facilitate continuous professional development, ensuring individuals can upskill throughout their careers.	1. Design and develop courses for certificate programs in different NSQF levels. 2. Introduce DVoc and BVoc programs in different NSQF levels.	No. of diploma programs	1	2	3	4	5
			No. of degree programs	1	2	3	4	5
6.	Empower course faculty to design both formative and summative assessments using diverse assessment methods, ensuring a comprehensive evaluation of student learning.	1. Implement flexible examination system based on outcomes of course which will be designed by course handling faculty members. 2. Ensure digitalization of examination and evaluation process	No. of student beneficiaries	1190	2500	3930	5480	5480
			No. of course handling faculty members	79	166	262	365	365

7.2. Faculty Recruitment Plan

7.2.1 Faculty Recruitment: Strengths and Achievements of MCET

As a technical education institution for the past two and a half decades, MCET maintains a comfortable student faculty ratio. Currently MCET is having 230+ well qualified faculty in various cadres maintain the faculty cadre ratio of 1:2:6 as per the guidelines of regulatory bodies and 160+ supporting staff for the quality enhancement for teaching learning process.

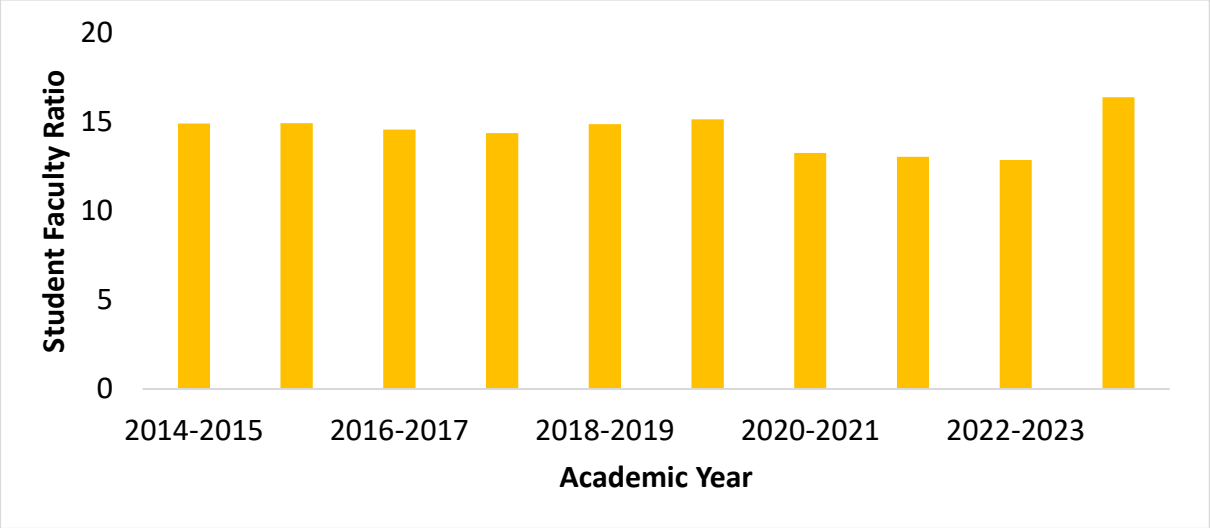


Figure 7.1.: Student Faculty Ratio (SFR) for the period 2014 to 2024

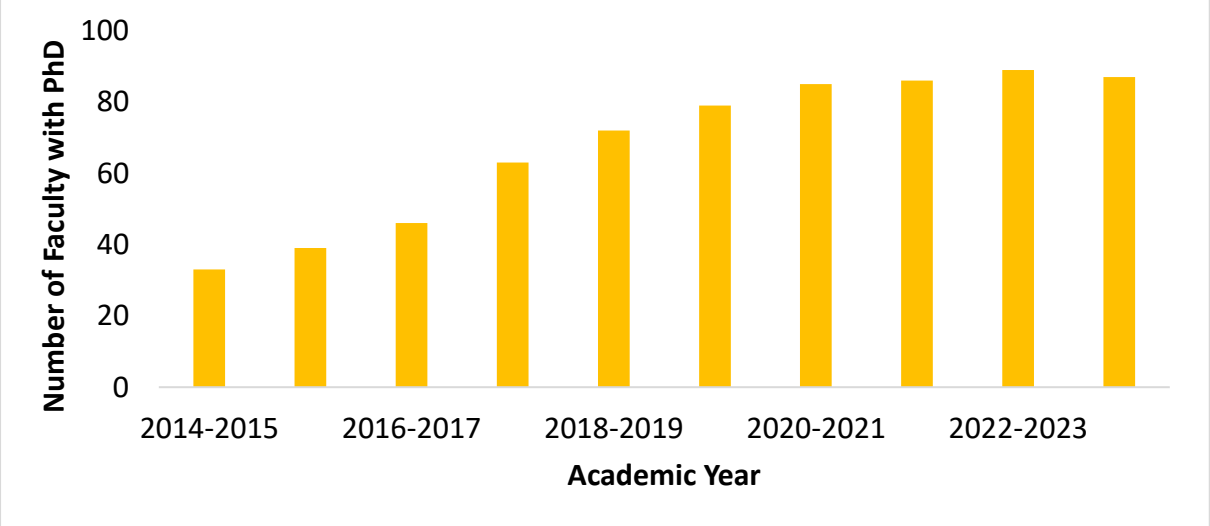


Figure 7.2.: Number of faculty members with PhD for the period 2014 to 2024

Faculty members are constantly encouraged to upskill themselves through lifelong learning. Learning through MOOCs, especially NPTEL and SWAYAM are encouraged. MCET also has been consistently increasing the number of faculty members with PhDs.

7.2.2 Faculty Recruitment: Fifteen Years Strategic Plan for DU

Strategy for Faculty Recruitment

- **Attract and retain highly reputed human resources in diverse domains through appropriate mechanisms for compensation, welfare and career growth.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in faculty recruitment:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1.	**Leadership Team:** Recruit key officials for deemed to be university.	✓		
2.	**Entry Qualification:** Recruit faculty with PhD qualification and above for all schools.	✓	✓	✓
3.	**Supporting Team:** Recruit technical and supporting staff as per the norms.	✓	✓	✓
4.	**Professor of Practice:** Recruit professor of practice as per the guidelines	✓	✓	✓
5.	**Visiting, Adjunct, and Emeritus Faculty:** Facilitate Recruitment of Visiting, Adjunct, and Emeritus Faculty	✓	✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
6.	**Collaborative Faculty:** Recruit faculty through collaboration with other universities and industries		✓	✓
7.	**Reputed Faculty:** Attract Faculty of International repute for various programs		✓	✓
8.	**Industry Partnerships:** Establish department/school-level chairs supported by industry partnerships			✓
9.	**Professional Development Grants:** Grow faculty competencies with professional development grants.			✓

The strategic goals with respect to faculty recruitment of DU will be achieved by:

Recruitment: Recruiting the key officials, faculty, technical and supporting staff, professor of practice, visiting, adjunct, emeritus and international faculty for various departments for the deemed to be university as per the guidelines mandated in NEP 2020 through the selection committee and try to maintain SFR of 1:10.

Industry Partnerships: Increasing the number of industry partnerships through Memorandum of Understanding (MoUs) for mutual benefit and instituting chairs.

Collaboration with Foreign Universities: Establishing collaboration with foreign universities for students & faculty exchange, joint academic and research activities etc. based on the guidelines of section 23(3) of UGC act of 1956.

7.2.3. Faculty Recruitment: Five Years Rolling Implementation Plan for DU

In faculty recruitment, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Recruit key officials for deemed to be university.	1. Constitute selection committee 2. Advertise for recruitment 3. Scrutinise applications 4. Conduct interviews 5. Select key officials	Chancellor	1	1	1	1	1
			Vice Chancellor	1	1	1	1	1
			Pro-Vice Chancellor	1	1	1	1	1
			Registrar	1	1	1	1	1
			Controller of Examinations	1	1	1	1	1
			Finance officer	1	1	1	1	1
2.	Recruit additional faculty required with minimum doctorate level and above for all schools.	1. Constitute selection committee 2. Advertise for recruitment 3. Scrutinise applications 4. Conduct interviews 5. Select faculty	Professor	5	7	10	15	15
			Associate Professor	10	15	20	30	30
			Assistant Professor	30	40	60	90	90
3.			Professor	1	2	3	4	5

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
	Recruit Professor of Practice (PoP) as per the guidelines	1. Constitute selection committee 2. Advertise for recruitment 3. Scrutinise applications 4. Conduct interviews 5. Select PoP	Associate Professor	2	4	6	8	10
			Assistant Professor	4	8	12	16	20
4.	Recruit additional technical and supporting staff	1. Constitute selection committee 2. Advertise for recruitment 3. Scrutinise applications 4. Conduct interviews 5. Select staff	Supporting Staff	15	15	20	40	40
			Maintenance and admin Staff	5	5	7	10	10

7.3. Admission Plan

7.3.1. Admissions: Strengths and Achievements of MCET

MCET has been consistently admitting almost 1000 candidates in its programs every year from all over Tamil Nadu. At any given point of time there are around 4000 students on rolls for almost a decade now.

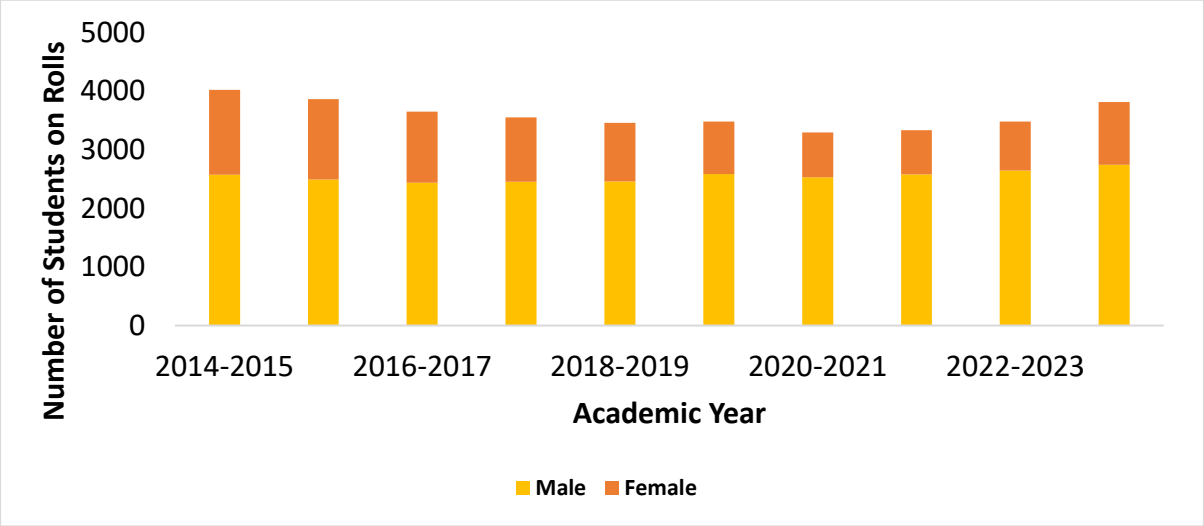


Figure 7.3.: Number of students on rolls for the period 2014 to 2024

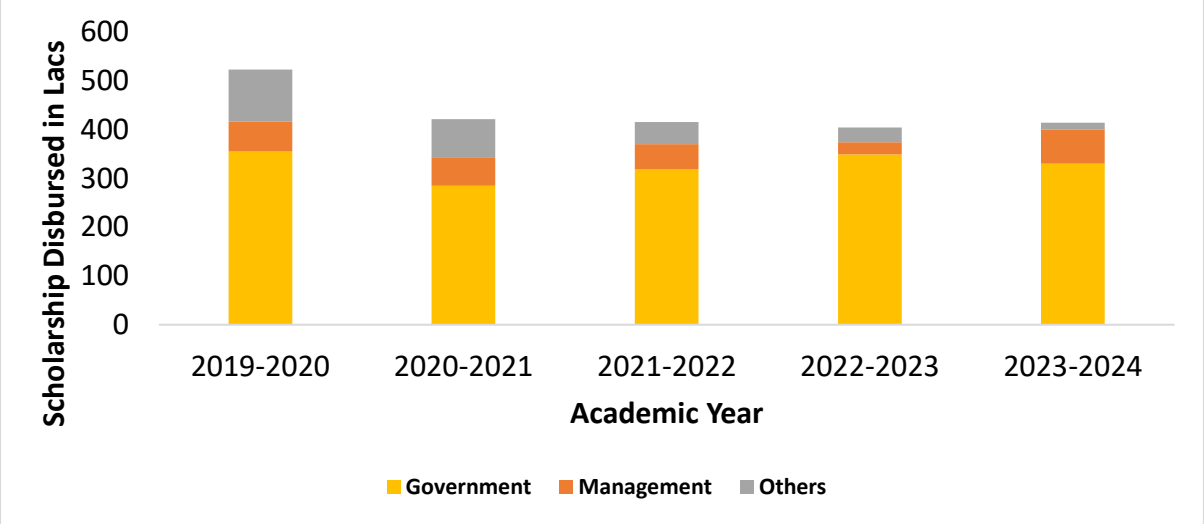


Figure 7.4.: Scholarship disbursed for the period 2019 to 2024

Every year MCET gives liberal scholarships on merit and means basis to students to provide impetus to various systemic interventions such as increasing the

Photo: First year student recipients of scholarships

number of girls, attracting high cut off marks, supporting social causes etc. MCET is also proud to admit students with provision to prepare for a career in a particular company such as Capgemini, NTT Data. MCET has the rare experience of operating the collaborative education program for TVS group preparing around 150 engineers through the program since 2015.

The admission process for government quota undergraduate programs is managed by the Tamil Nadu Engineering Admission (TNEA) under the Directorate of Technical Education (DOTE), Chennai. For the management quota, the process is handled by the Consortium of Self-Financing Professional Colleges in Tamil Nadu. For Lateral Entry UG programs under the government quota, the DOTE handles admissions. The postgraduate admission process for government quota seats is managed by the Tamil Nadu Common Admission (TANCA) under Anna University, Chennai. All statutory requirements and reservation policies with respect to admissions are being followed by MCET.

Mahalingam Academy of Higher Education and Reserach

7.3.2 Admissions: Fifteen Years Strategic Plan of DU

Strategy for Admissions

- **Attract through scholarships and admit diverse learners and support personalized learning through customized educational experiences.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in admissions:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1.	**Online All-India Admission Test:** Implement online tests and ensure a fair and transparent admission process.	✓	✓	✓
2.	**Adherence to Guidelines:** Follow the guidelines of Government of India, UGC, and regulatory bodies and admit students based on Online All-India Admission Test /CUET / JEE / GATE/ and similar entrance examination scores.	✓	✓	✓
3.	**Promoting Gender Diversity:** Increase scholarships, stipends, and fee waivers for students.	✓	✓	✓
4.	**Ph.D. Program Alignment:** Align Ph.D. program admissions with undergraduate programs.	✓	✓	✓
5.	**Admissions for Industry Professionals:** Offer part-time and online programs for industry professionals.		✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
6.	**Special Admission for Transgender Students:** Provide special admission for transgender students and promote inclusivity.	✓	✓	✓
7.	**Foreign Student Admissions:** Facilitate admissions of foreign students through the Ministry of External Affairs, Government of India.	✓	✓	✓
8.	**Diversity Promotion:** Attract students from other states and countries through promotions, branding, MoUs, and tie-ups.	✓	✓	✓
9.	**Multi-entry and Multi-exit:** Introduce multi-entry and multi-exit options with implementation of ABC.	✓	✓	✓
10.	**Two semester Admission:** Admit students in both the semesters in all programs of the institute.	✓	✓	✓

The strategic goals with respect to admissions of DU will be achieved by:

Branding: Implementing branding initiatives all over the country and abroad to attract attention and evoke interest of varied categories of prospective learners.

Admission Tests: Devising an all-India admission test for selection of students to various programs and implement an online test to ensure accessibility for diverse prospective students and admit students through CUET, JEE, GATE etc.

Regulatory Compliance: Adhering to the guidelines set by the Government of

India, UGC, and other regulatory bodies for admissions to ensure a uniform and transparent admissions process, to promote social justice.

Diversity: Enhancing diversity by increasing scholarships, stipends, and fee waivers for students from diverse socio-economic status and other states. This initiative also aims to promote gender equity and support a more balanced academic environment.

Ph.D. Admissions for UG Students: Providing undergraduate students opportunities to pursue PhD programs directly in accordance with regulations National Skill Qualification Framework.

Flexible Learning Options: Expanding part-time and online programs for alumni, industry professionals to support lifelong learning and career advancement.

Special Admissions: Providing special admission provisions for transgender students, sports persons, differently abled to ensure an inclusive and equitable academic environment.

Foreign Student Admissions: Collaborating with the Ministry of External Affairs to facilitate admissions for international students, fostering global outreach and cultural exchange.

Dual Degree Programs: Allowing students to pursue dual degree programs through collaboration with other universities in India and abroad as specified in section 22(3) of the UGC act of 1956.

Flexible Learning Pathways: Introducing multi-entry and multi-exit options to offer students customizable educational experiences which allows students to align their learning journeys with their flexible needs and goals.

7.3.3. Admissions: Five Years Rolling Implementation Plan for DU

In admissions, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Implement online tests ensures a fair and transparent admission process, promoting accessibility for students across the country.	1. Conduct an online All-India admission test for all the UG and PG programs.	No. of UG applicants	3000	4000	5000	5000	5000
			No. of PG applicants	1000	1500	2000	2000	2000
			No. of Ph.D. aspirants	500	600	1000	1000	1000
2.	Follow the guidelines Government of India, UGC, and regulatory bodies for Indian student admissions ensures compliance with regulatory standards and promotes uniformity in admissions based on Online All-India Admission Test / JEE / GATE scores.	1. Prepare the admission guidelines based on Government of India, UGC, and regulatory bodies. 2. Consider the JEE score for UG admission or online All-India admission test. 3. Consider the GATE score for PG admission or online All-India admission test.	No. of students admitted through admission test	1000	1145	1230	1325	1420
			No. of students admitted through CUET/JEE	100	150	180	200	220
			No. of students admitted through GATE	10	15	20	25	30

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
3.	Increase scholarships, stipends, and fee waivers for students aims to enhance equity and inclusivity	1. Run promotions and branding drives and provide scholarships, stipends for differently abled, sports persons, girls, transgender etc. 2. Provide fee waiver schemes.	No. of students benefitted	400	420	440	460	480
4.	Align Ph.D. program admissions with undergraduate programs fosters a seamless academic progression and encourage research-oriented education.	1. Introduce Teaching assistance scheme for Ph.D. program. 2. Increase the number of scholarships /stipend /fee waivers	No. of students admitted for Ph.D.	25	50	75	90	100
			No. of students admitted for PG	250	300	350	400	500
5.	Offer part-time and online programs for industry professionals enhances their skills and promotes lifelong learning.	1. Provide part time / online programs for working professionals.	No. of working professionals enrolled.	50	50	100	100	150

7.4. Research Plan

7.4.1. Research: Strengths and Achievements of MCET

Over the past five years, the institute's faculty have authored **916 research articles** across various journals, books and conference proceedings. Among which **116 books and chapters** in edited volumes/books were published. 94 research articles are in the Q1 journals and 51 are having impact factor above 3. The research articles have received over **17,142 citations**. The current **h index of the institute is 56**.

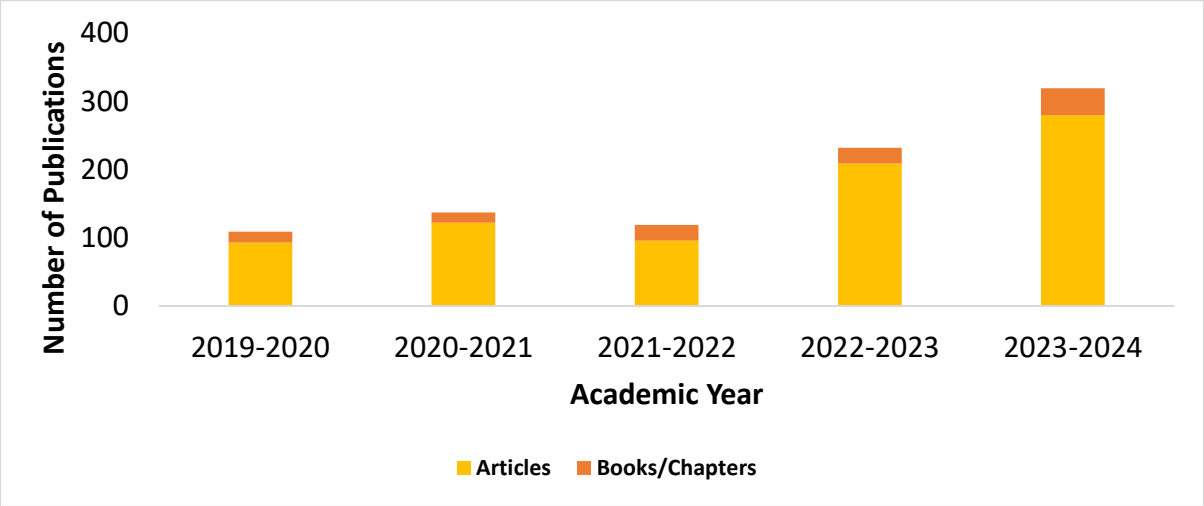


Figure 7.5.: Publications for the period 2019 to 2024

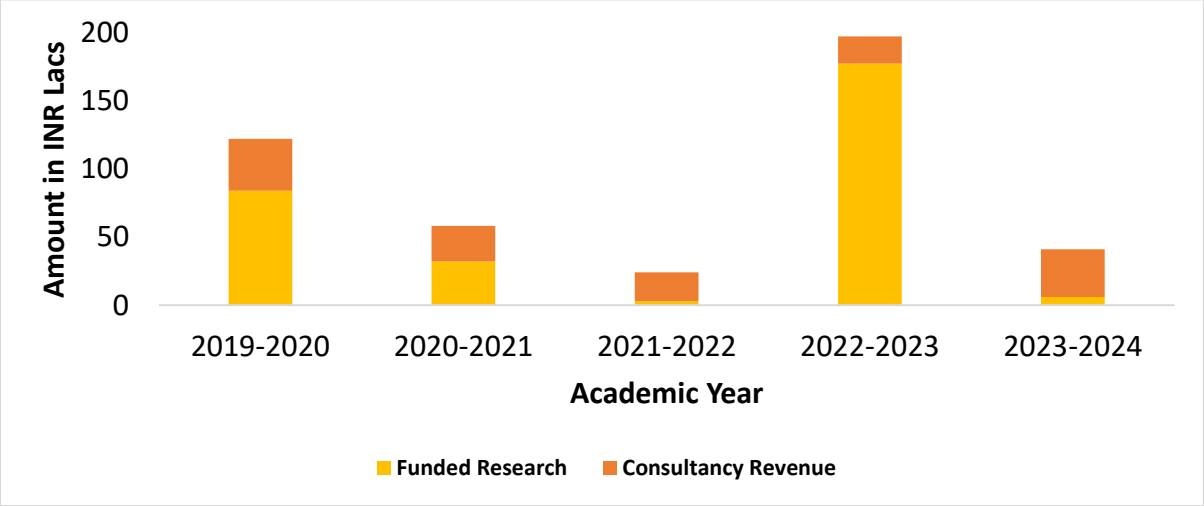


Figure 7.6.: Research grants & consultancy revenue for the period 2019 to 2024

In the past five years, **research grants worth INR 3,01,25,892** was received from various agencies. **Revenue of INR 1,40,11,614 was generated from 177 consultancy activities**. Seed money of **INR 29,86,500 was provided for 31 the in-house R & D projects.** The institute has **published 157 patents** out of which **39 have been granted.**

MCET has successfully completed **33 funded projects** for MietY, AICTE, DST, UGC, ISRO, CSIR, EDII etc in the past 5 years. Currently 4 funded projects worth INR 1,81,78,620/- is in progress. MCET has been **recognised by MeitY** as an institute under **Category 1 for chip to start up program**. Currently 10 faculty members are doing in-house R&D projects amounting to INR 11,16,500/-.

Seven departments of the institute are approved as research centre by the parent university. The number of **PhD scholars currently in this institute is 142 and at present 45 PhD supervisors are working in this institute. So far 94 PhD scholars have graduated from this institute**. Institute has several state-of-the-art facilities and spent INR 1,65,55,330/- for major research equipment and INR 11,25,45,404/- for creating research facilities during last 5 years.

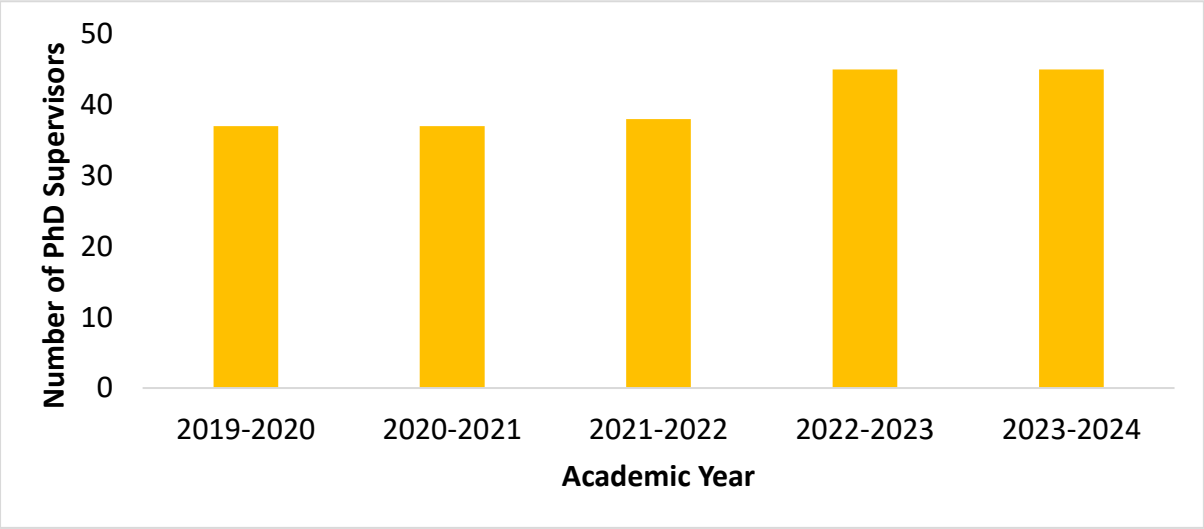


Figure 7.7.: Research supervisors for the period 2019 to 2024

The institute has tie-ups with **Cape Breton University, Edith Cowan University, James Cook University** etc. which resulted in faculty exchange, student exchange, joint publications, and joint hoisting of international events such as Renewable Energy and Sustainable Environment (RESE) conference, International Conference on Data Analytics, Intelligent Systems and Information Security (ICDIIS). This institute has dedicated division namely Centre for Innovation, Business Incubation and Entrepreneurship (CIBIE) with **16 Start-ups** for 5 years and also Institution Innovation Cell (IIC) conducted 207 activities for 5 years. The institute has conducted **464 research workshops** and seminars and **7 conferences** during last five years. 112 faculty members have received a total **INR 40,56,123/- as incentive** for the past five years for their research contribution. **191 faculty members have completed 838 certification courses from NPTEL/Coursera** during last five years. Twelve Research Interest Groups (RIG) are formulated recently and **37 knowledge sharing sessions and 91 research seminars** are carried out by RIG. Moreover, Student Research Council (SRC) was formulated recently for students to organize conference, workshop, exhibition, innovative projects expo, hackathon and industry expert talk.

Photo: Glimpse of research facilities and activities

This institute had successfully **completed 3 community based funded projects** for rural development activities in five selected villages in under Unnat Bharat Abhiyan scheme, Implementation of a Machine Learning Technique for Enhancing Women Safety at Public Women only Spaces, Rural women's technology park in Pollachi and Improved coconut post harvesting technologies for empowering the women of Pollachi region by DST. In addition to this, several technological solutions are to be provided to the rural community, namely Development of EV Fiber Rotavator for Coir Industries, Development of healthcare equipment, Self-Recharging Internal Frame Electric Bicycles.

7.4.2 Research: Fifteen Years Strategic Plan of DU

Strategy for Reserach

- **Improve the research ecosystem through appropriate policy and conduct impactful multi and transdisciplinary research.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in research:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1.	**Research Programs**: Start doctoral programs in every school functioning under the university	✓	✓	✓
2.	**Research Centres**: Establish state of art laboratories/ dedicated research centres equipped with advanced technology for specialized areas	✓	✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
3.	**Research grants:** Establish internal research grants and develop sustainable research funding sources.	✓	✓	✓
4.	**Research Excellence:** Foster a culture of research excellence and enhance faculty research contributions and Metrics	✓	✓	✓
5.	**Research Partnerships:** Partner with leading national and international universities, research institutions, industries, government bodies, NGOs for applied research, internships, community impact projects, consultancy projects and funding	✓	✓	✓
6.	**Technology Transfer:** Create innovation hubs and incubation centres to support startups and entrepreneurial ventures and develop mechanism for transferring technology from lab to market	✓	✓	✓
7.	**Research dissemination:** Conduct community engagement programs to disseminate research findings.	✓	✓	✓
8.	**Research Fellowships:** Encourage faculty, undergraduate and post	✓	✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
	graduate students in research by providing scholarships and fellowships for research activities.			

The strategic goals with respect to research of DU will be achieved by:

Research and Development Cell: Establishing a Research and Development cell (RDC) that will oversee research and innovation efforts for developing and strengthening the research ecosystem. It will operate under the guidance of the Research Advisory Committee, led by a key official of Research & Innovation and overseen by the Vice-Chancellor. The activities of RDC will be mentored and monitored by various committees formed under RDC such as finance & infrastructure, policy development, collaboration & community, monitoring & commercialization and IPR & ethical matters.

- **Capacity Building Programs:** Conducting workshops and training programs for faculty to enhance research skills, project management capabilities, collaborative research methodologies and ethical considerations.
- **Culture of Innovation:** Fostering a culture that encourages and supports innovation, creativity, and entrepreneurship among faculty, researchers, and students to promote an environment where ideas are valued, protected, and nurtured.
- **Infrastructure Development:** Enriching state-of-the-art research facilities, equipment, and technology upgrades within laboratories and establishing joint research centres to support advanced studies, experiments and interdisciplinary research.

- **Research Programs:** Introducing full-time/part-time Ph.D. programs and post doctorate fellowship programs in each school for strengthening research activities and increasing outcomes.
- **Incentives and Rewards:** Motivating faculty research through incentives and performance metrics in career advancement to achieve research targets.
- **Research Funding:** Introducing funding schemes and monitoring funding proposal submission process to help researchers obtain funding.
- **Grant Proposal Review System:** Arranging reviews by the relevant experts to enhance the proposal quality and increase the success of fetching the grants.
- **Research Interest Groups***:* Identifying multi-disciplinary Research Interest Groups (RIG) for research collaborations to leverage combined expertise and resources and directing research interest groups to focus on issues that are both emerging and interdisciplinary in nature.
- **Partnerships:** Building partnership with industries, foreign universities, NGOs, local communities, government bodies and other HEI for undertaking interdisciplinary research projects, consultancy opportunities, socially relevant and commercially viable projects.
- **Idea Generation Platforms:** Establishing idea generation platforms potentially through internal competitions with fair and rigorous evaluation process to facilitate collaboration and innovation among students and researchers.
- **Consulting Groups:** Establishing specialized consultancy teams within the university, comprising experts from various disciplines to analyse uptrend market research to identify industries, businesses, or sectors seeking consultancy expertise and cater to specific client requirements.
- **Research Resources:** Creating facilities for research and consultancy services with necessary resources, expertise, and streamlined processes to support research activities and consultancy projects.

- **Strategic Promotion:** Developing a comprehensive marketing strategy to showcase consultancy expertise utilizing various channels such as social media, university websites, industry publications, seminars, workshops, and conferences to highlight success stories, case studies, and the expertise of faculty members.
- **Dedicated IP Office:** Establishing a dedicated IPR office for managing and overseeing patent filings, licensing negotiations, and guiding researchers through the IP process.
- **Technology Transfer Office:** Establishing a technology transfer office that facilitates the transfer of knowledge, patents, and innovations from academia to the market, bridging the gap between research and commercialization by providing legal counselling.
- **Industry Relationships:** Participating in networking events, conferences, and industry forums to enhance industry-academic linkages and improve industry sponsorship.
- **Progress Monitoring and Evaluation:** Reviewing periodically the progress of industry-sponsored research projects, funded projects and set clear milestones to ensure goals are being met and improvements are made as needed.
- **Research Exchange Programs:** Developing structured exchange programs for faculty, researchers, and students to engage in research collaborations abroad through visiting scholar programs and international conferences.
- **Networking Events:** Organizing international symposiums, workshops, and forums to facilitate networking and foster partnerships to encourage knowledge exchange and collaboration.
- **Faculty Recruitment and Retention:** Allocating funds for hiring and retaining top-tier researchers and faculty members, offering competitive salaries, research grants, and incentives to attract and retain talent.

- **Student Research Support:** Establishing programs that financially support student involvement in research, such as research stipends, scholarships, and grants for undergraduate and graduate students engaged in research projects.
- **Student Research Internship:** Introducing research internships in the curriculum structure aiming to provide hands-on training to students to work on research tools, equipment, techniques, methodologies and various other aspects in pursuing quality research.
- **Student Research Training***:* Developing structured research training programs for students for emphasizing critical thinking and initiating innovation through various competitions.
- **Innovation Hubs and Incubators:** Investing in creating innovation hubs, startup incubators, or accelerators that provide financial support, resources, and mentorship to researchers and students aiming to commercialize their research outcomes.
- **Funding and Grants Support:** Creating policies for financial support for recognising high impact research and attracting foreign students for research programs.
- **Community Research Centres:** Creating dedicated research centres focusing on community needs and issues, providing resources and expertise for targeted research.
- **Knowledge Sharing Initiatives:** Facilitating effective knowledge exchange by disseminating research findings in accessible formats while learning from community insights and experiences.
- **Policy Advocacy and Implementation Support:** Utilizing effectively the research outcomes to advocate for policy changes to benefit the community and collaborate with policymakers for implementation.

- **Research Information Management System (RIMS):** Putting in place Research Information Management System to collect research-oriented information and access resource centric information pertaining to research.

The following FIVE advanced research centres (details in Annexure 2) will be established to augment the research activities of the university.

1. Advanced Centre for New Product Development and Material Characterization

2. Centre for RF and Microwave Communication

3. Centre for Electric Vehicle and Advanced Mobility

4. Centre for Advanced Artificial Intelligence and Internet of Things

5. Centre for Structural Stability and Water Quality Analysis

7.4.3. Research: Five Years Rolling Implementation Plan for DU

In research, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Start doctoral program in every school	1. Identify requirements of key stakeholders 2. Faculty and resource allocation 3. Establish clear and rigorous admission criteria for doctoral candidates	Number of PhD scholars admitted	25	50	75	90	100
2.	Improve both the quality and quantity of publications	1. Offer Research Training and Workshops 2. Build a Strong Research Network 3. Support Open Access Initiatives	No. of Publications in Q1	50	60	75	85	100
			No. of Publications in SCIE	100	150	200	250	300
			No. of Publications in Scopus	100	200	300	400	500

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		1. Provide due weightage to research targets in Faculty career management systems. 2. Set Milestones and Key Performance Indicators 3. Provide incentives and recognition for outstanding research	No. of Publications in Conferences	100	200	300	400	500
			No. of Books Published	10	20	30	40	50
			No. of Book chapters Published	50	75	125	175	200
3.	Strengthen the efforts for fetching a more significant number of externally funded projects.	1. Provide Training and conduct Workshops 2. Cultivate Relationships with Funding Agencies 3. Develop an Effective Grant Review Process 4. Encourage competitive peer-reviewed research funding across disciplines	No. of projects from Government Agency	10	25	50	75	100
			No. of projects related to society's needs and Corporate needs	10	25	50	75	100
			No. of projects from CSR Funds	5	15	25	40	50
			No. of Seminar Grant	5	15	25	40	50

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		5. Foster Collaboration and Networking	No. of Travel Grant	5	15	25	40	50
4.	Enhance Seed Money for In-house R&D Projects	1. Create Cross-Functional Teams 2. Involve students in research projects 3. Implement Idea Generation Platforms 4. Increase seed money for in-house research	No. of faculty receiving seed money for In-House R&D	50	80	125	160	200
			Total amount of seed money given for faculty in lacs	25	40	60	80	100
			No. of Students receiving seed money for In-house projects	75	125	175	200	250
			Total amount of seed money given to students in lacs	25	40	60	80	100
5.			No. of consultancy activities	60	80	100	125	150

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
	Expand Consultancy Services	1. Network with industries for consultancy and testing services 2. Offer state-of-the-art research facilities for consultancy services 3. Collaborate with industry partners and government agencies 4. Provide customized training programs for industries	Total amount generated from consultancy activities in lacs	40	60	80	100	125
			No. of Corporate training programs	10	20	30	40	50
			Income generated in Lacs	40	60	80	100	125
6.	Increase Intellectual Property Rights (IPR)	1. Identify the patentable inventions. 2. Create Inventor Recognition Programs 3. Provide Financial support for IPR filing 4. Engage Legal Counsel	No. of Patent filed	30	40	60	80	100
			No. of Design filed	30	40	60	80	100
			No. of Copyright filed	30	40	60	80	100
			No. of Technology Transfer	5	10	25	40	50

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
7.	Enhance Industry Sponsored Research	1. Establish industry-academic linkages 2. Promote Multidisciplinary Collaboration 3. Act as a liaison between researchers and relevant branches of government as well as Industry 4. Monitor and Evaluate Progress 5. Facilitate Joint Workshops and Training	No. of Industry sponsored research lab	10	20	30	40	50
			No. of Industry sponsored projects	20	30	50	75	100
			No. of Joint publications	15	20	30	50	80
			No. of MoU's	60	70	80	90	100
			No. of the workshop for Industry Insights	5	10	15	20	25
			No. of Research-based Internship	20	40	60	80	100
8.	Strengthen International Research Collaboration	1. Participate in International Conferences 2. Promote global Joint Publications and joint Research Projects	No. of Faculty Exchange with Global Institutions	5	10	20	30	50
			No. of Student exchange with global institutions	25	50	100	150	200

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		3. Host International Workshops and Seminars 4. Collaborate research within the university and with sister institutions	No. of Joint Publications	20	40	60	80	100
			No. of Joint Research Projects	5	10	20	30	50
9.	Develop a Robust Research Ecosystem	1. Modernize labs outfitted with cutting-edge equipment and technology 2. Deploy computational resources and high-performance computer clusters for data-intensive research 3. Contribute public databases, archives, and research materials	No. of Major Research Equipment	50	60	75	90	100
			No. of Technology development centres	10	20	30	40	50
			No. of membership and research clusters	10	20	30	40	50
			No. of public datasets contributed to the research.	5	10	15	20	25

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		4. Liaison with foreign organizations to facilitate cross-border research cooperation. 5. Invest in Emerging Technologies	No. of centres in frontier areas of research	5	6	7	8	10
10.	Build strong research capacity	1. Invite Expert Speakers and Facilitators 2. Promote Cross-Disciplinary Participation 3. Conduct Hands-on research workshops, case studies and seminars periodically 4. Discovery-based style of learning to conduct student research	No. of HEIs Collaborated	10	15	20	30	50
			No. of Research workshops and seminars	20	25	30	40	75
			No. of International Conference	3	5	7	9	10
			Incentive for research contributions in lacs	25	50	75	90	100
			Support for attending FDP/ Conference in lacs	50	90	125	160	200

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		5. Promote Competitions for innovation among student communities 6. Institute policies to attract students from other nations to study for a PhD 7. Fast-track promotion system for recognizing high-impact research and contribution. 8. Provide teaching assistantship for Ph.D scholars	No. of students receiving four-year degree programs to be admitted in Ph.D	-	-	-	-	50
			No. of Master's students for the 2-year program with the second year devoted entirely to research	-	15	25	50	100
			No. of events by Research interest group	150	200	225	260	300
			No. of events by the Student Research Council	15	20	30	40	50
			Mobility of students to carry out research at institutions abroad	-	-	-	-	50

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
11.	Improve Community Engaged Research activities	1. Develop strategies for attaining sustainable goals. 2. Reflect on the research product with the community 3. Build Capacity for Community Research 4. Implement training programs for community members to enhance their research literacy and participation.	No. of Community Engagement Programs organized	15	20	30	40	50
			No. of Technological solution provided	10	20	30	40	50
			No. of Outreach activities conducted	25	50	75	100	150

7.5. Information and Communication Technology Plan

7.5.1. ICT: Strengths and Achievements of MCET

MCET has **1951 computers** in total of which 1566 computers are available exclusively for students' usage, 36 proprietary application software, and 9 proprietary system software. Computers are available with systems configuration of Core i9, i7, Core i5, Core i3, 32GB, 16GB, 8GB, 4GB RAM, 1TB / 500 GB / 320GB / 160 GB HDD, 18.5", 21", 24" LED monitor, system model - HP (280, Z2, 3330, Pro3090, DX2480, & 202), 105 Lenova Workstation - Thinkstation P3, Dell Optiplex (390, 3010, 3020), Apple MAC Mini, Apple MAC Pro, iMAC. MCET has given **4625 tablets** to students and also operates its own learning management system **Sprout LMS**. There are **65 courses** offered through the LMS at present, with plans to extend it to all the courses.

Photo: Glimpse of facilities for students

Rack based server are deployed for file transfer, siemens software bundle, cadence EDA tools, tally, campus application, library management, exam cell

application, campus license software servers. Servers are configured with RAID controller and redundant power supply.

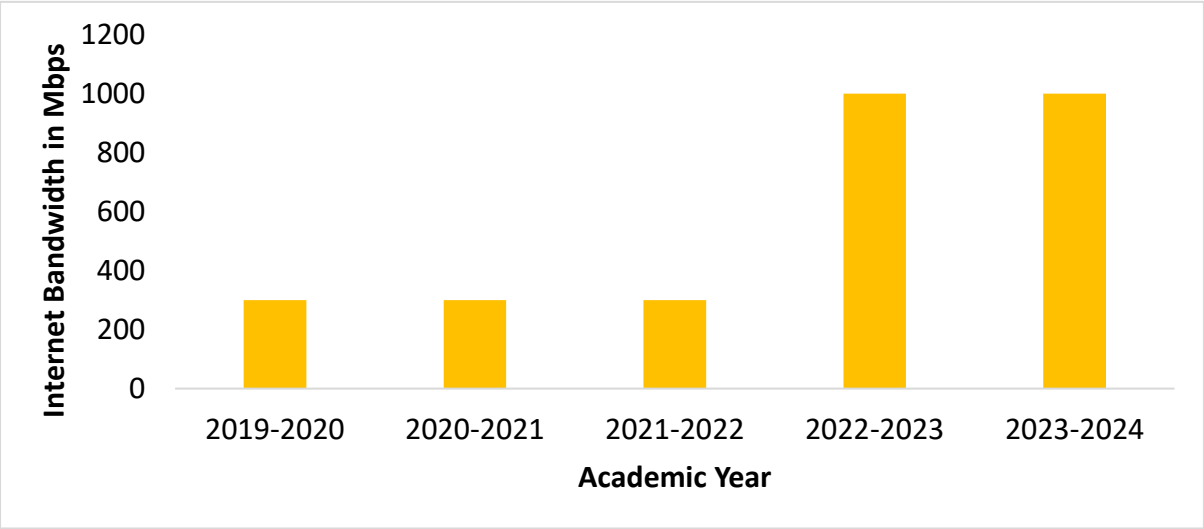


Figure 7.8.: Internet bandwidth for the period 2019 to 2024

Computers are connected through network and entire campus backbone network is connected through fibre optic cable. **Optical Fibre is laid for 4.5 km** in campus. LAN connectivity is provided for all computers. Cisco ASR 1001X router is deployed as a gateway for wired LAN. Computer is provided with static IP address & it's allocated and managed by ITeS division. Campus is connected through **internet leased line from Reliance JIO with 1000Mbps**. Cisco C9500-24Y4C-A switch is deployed as a core switch for WiFi network. Jaze access manager is used for authenticate users on the network and enforce identity-based policies. Individual user credentials are given to students, faculty and guest. All IPs are monitored by firewall. Wi-Fi facilities are available in the campus. The **Microsoft campus agreement** volume license is used for operating system key activation at end nodes. Microsoft office 365 products are used for connecting online meeting and cloud storage. Microsoft outlook is used for mail service. The **FortiGate 600F firewall** is deployed for security purpose for protecting campus WiFi network. The WiFi traffic is monitored through an FAZ-150G analyzer for detecting WiFi traffic. FortiGate 400F firewall is deployed for

security purpose for protecting campus wired LAN. The campus internet traffic is monitored through an analyzer for detecting network traffic. End points are protected with K7 antivirus.

7.5.2. ICT: Fifteen Years Strategic Plan of DU

Strategy for ICT

- **Develop robust digital infrastructure to enhance learning experience, global connectivity and administrative efficiency.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in ICT:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1.	**Infrastructure Enhancement:** Enhance campus facilities with modern computer centres, laboratories, smart classrooms, and advanced software resources to support innovative teaching and learning methodologies across diverse disciplines	✓	✓	✓
2.	**Reliable Networking:** Provide robust backbone networking technology to ensure highly reliable data transmission in schools and university	✓	✓	✓
3.	**ICT Support for Government Research Programs:** Utilize ICT to support government research	✓	✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
	programs in areas such as AI, Natural Language Processing, Cyber Security and Human-Computer Interaction including AR, VR and Metaverse.			
4.	**LMS Development and Implementation:** Develop the LMS that enables online teaching, blended learning, and course management	✓	✓	✓
5.	**Security Implementations:** Implement advanced security technologies including firewall servers**.**	✓	✓	✓
6.	**Promote Security Awareness:** Cultivate a Security-Conscious Culture through Training and Audits	✓	✓	✓
7.	**Integrated ERP System:** Develop an ERP system to automate processes in finance, human resources, admissions, academics and resource sharing.	✓	✓	✓
8.	**Risk Management:** Implement a suitable risk management system that includes data integrity, availability, backups, and disaster management.		✓	✓
9.	**Centralized Data Analytics:** Design a centralized data analytics system to		✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
	improve processes and support decision-making.			
10.	**Online Learning:** Develop effective open and distance learning (ODL) programs to provide flexible learning opportunities that meet diverse learners and promote lifelong learning		✓	✓
11.	**Environmental Sustainability:** Support environmental sustainability through ICT, such as smart waste management, energy management, and early warning systems for disaster management.		✓	✓
12.	**Secure Data Centre Services:** Provide secure data centres for local government bodies and nearby educational institutes using blockchain technology.		✓	✓

The strategic goals with respect to ICT of DU will be achieved by:

Infrastructure Enhancement: Enhancing campus facilities with state-of-the-art computer centres, laboratories, smart classrooms, and advanced software resources. Also establishing a Video Conference Studio for high-quality online classes to enhance interactive learning experiences and facilitate real-time engagement between instructors and learners.

Flexible Open and Distance Learning (ODL) Initiatives: Creating adaptable learning pathways to meet diverse educational needs, irrespective of location or

personal circumstances. These programs will aim to cater to working professionals, students in rural areas, and others with commitments, fostering accessibility and promoting lifelong learning.

Networking Technology: Deploying robust backbone networking technology to ensure highly reliable data transmission across campuses. This initiative involves upgrading network infrastructure with high-speed fiber optics, advanced routing and switching technologies, and state-of-the-art wireless systems. This reliable system will support academic and administrative functions, enhance online learning and research capabilities, and provide a solid foundation for future technological advancements.

Environment Sustainability: Implementing ICT-driven initiatives that address key environmental challenges, focusing on smart waste management, energy efficiency, and disaster management preparedness.

Secure Data Centres: Establishing secure data centres that cater to the needs of local government bodies and nearby educational institutes. This initiative will address the growing demand for reliable and secure data storage solutions while fostering collaboration and knowledge sharing within our community.

Collaborative Support: Utilizing Information and Communication Technology (ICT) to strengthen government research initiatives across pivotal domains such as Artificial Intelligence (AI), Natural Language Processing (NLP), Cyber Security, and Human-Computer Interaction (HCI).

Learning Management System (LMS): Augmenting LMS to modernize educational methodologies and enrich the learning experience. This system supports online teaching, blended learning, and comprehensive course management with user-friendly interfaces, interactive content delivery, and

robust assessment tools. It will also integrate multimedia resources, discussion forums, and collaborative tools. Additionally, a digital library will provide extensive information resources to enhance research and study capabilities.

Data Protection and Security: Implement security technologies and establish comprehensive security protocols to ensure the highest level of data protection and integrity This includes deploying advanced firewall servers, intrusion detection and prevention systems, and robust encryption methods to safeguard our network against cyber threats.

Cybersecurity Awareness and Risk Management: Providing training programs for all faculty, staff, and students, emphasizing best practices in data protection and cyber hygiene. Regular security audits will be conducted to identify vulnerabilities and ensure compliance with security policies. This aims to minimize risks, potential threats, and ensure a safe and secure digital environment for all stakeholders.

Operational Efficiency with an Integrated ERP System: Developing and implementing an Enterprise Resource Planning (ERP) system to automate and streamline processes across finance, human resources, admissions, academics, and resource sharing. This integrated system will enhance operational efficiency, improve data accuracy, and support effective decision-making throughout the institution.

Centralized Data Analytics: Designing and implementing a centralized data analytics system to improve institutional processes and support informed decision-making. This system will consolidate data from multiple departments such as finance, human resources, admissions, and academics, providing a unified platform for comprehensive data analysis.

7.5.3. ICT: Five Years Rolling Implementation Plan for DU

In ICT, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Enhance campus facilities with modern computer centres, laboratories, smart classrooms, and advanced software resources to support innovative teaching and learning methodologies across diverse disciplines	1. Enhance end nodes such as desktops and workstations. 2. Upgrading cloud storage system. 3. Deploy robust server access through public and private network. 4. Upgrade classrooms with smart board. 5. Manage procurement and renewal of system software, application software and plagiarism detection software	Number of computers upgradation.	300	200	200	180	180
			Server and cloud storage system secured with blockchain technology	3	2	1	-	-
			Number of smart classrooms with AR/VR facilities	20	20	20	10	10
			System and plagiarism software licenses	5	5	5	5	5
			Renewal of software licenses	45	50	55	60	65

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
2.	Provide robust backbone networking technology to ensure highly reliable data transmission in schools and universities	1. Upgrade of backbone network switches. 2. Enhance of WiFi infrastructure. 3. Upgrade media converter. 4. Enhance campus gateway router	Number of backbone network switches and router upgradation.	30	20	20	20	20
			Number of access point upgradation.	30	10	10	10	10
			Number of media converter upgradation.	5	5	5	5	5
			WiFi jaze access manager upgradation.	-	1	-	1	-
3.	Implement advanced security technologies including firewall servers.	1. Upgrade security mechanism to protect campus network from intruders using firewall. 2. Strengthen endpoint security using Antivirus software.	Renewal of firewall	-	1	-	1	-
			Number of license updates for antivirus	2250	2400	2650	2800	3000

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
		3. Enhance the firewall analyser.	Number of analyzer updates	-	1	-	1	-
4.	Cultivate a Security-Conscious Culture through Training and Audits	1. Provide ongoing security training programs for faculty, staff, and students 2. Conduct regular security audits to identify vulnerabilities	Security training programs	2	2	2	2	2
			Training materials and resources developed	1	1	1	1	1
			Security audits	2	2	2	2	2
5.	Utilize ICT to support government research programs in areas such as AI, Natural Language Processing, Cyber Security and Human-Computer Interaction	1. Establish specialized labs for AI, NLP, Cyber Security, and HCI research. 2. Secure high-performance computing resources.	Number of specialized labs established.	1	1	1	-	1
			High-performance computing resources.	-	-	-	1	1

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
6.	Develop and implement an LMS that enables online teaching, blended learning, and course management	1. Develop a user-friendly interface for the LMS 2. Integrate interactive content delivery features 3. Implement robust assessment tool 4. Developing and updating digital library and providing digital library membership	Course	10	20	30	30	30
			Assessment tools	10	10	10	10	10
			Customizable grading and feedback mechanisms	10	10	30	60	90
			Number of digital books	50	50	50	50	50
			Number of study materials/ magazines	30	50	50	50	50
7.	Develop an ERP system to automate processes in finance, human resources, admissions, academics and resource sharing	1. Develop and implement an Enterprise Resource Planning (ERP) system 2. Automate and streamline processes across finance, human resources, admissions, academics, and resource sharing	ERP system	1	-	-	-	-
			Integration with existing systems and databases	-	1	-	-	-
			Automated workflows	2	1	1	1	-

7.6. Infrastructure Development Plan

7.6.1. Infrastructure: Strengths and Achievements of MCET

MCET is in a campus of **44.6 acres**. It has built up area of **8.7 lakh sq.ft**. for academic, administrative, library, hostel for boys and girls, sports complex and other amenities alone. It has **hostel facilities to house 1100 boys and 600 girls**.

Photo: Glimpse of infrastructural facilities

There are 8 courts and 2 fields with 17500 Sq.m. total area for sports and games. It also has Indoor Sports facility of 3000 Sq.m. The library has **65458 volumes, 14432 titles, 1104 journals, 3796 back volumes**. The **generator backup load is 1400 kVA and UPS battery backup is 650 kVA**. MCET has 410 tons AC capacity and 72000 LPD RO plant. MCET has **50.44 kWp of solar photovoltaic power plant which meets around 10%** of the total power requirement of the institute **offsetting 67.89 tons of CO_2**. MCET transport division operates **21 buses and covers around 1000 km per day** for the benefit students and faculty members. There are around **100 laboratories** meeting the current syllabus requirements. Apart from regular laboratories institute has **20 Skill Centres** in various disciplines established in collaboration with leading companies. **MCET has techno-commercial ventures inside the campus** which provides **job offers to 10% to 15% to our students** regularly every academic year apart from their commercial operations.

7.6.2. Infrastructure: Fifteen Years Strategic Plan of DU

Strategy for Infrastructure

- **Build ecofriendly and sustainable infrastructure to meet the evolving needs of stakeholders, whilst maintaining the existing.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in infrastructure:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1	**Administrative Area:** Establish administrative green buildings.	✓	-	-

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
2	**Academic and Research Hubs:** Create worldclass new academic and research hubs.	✓	✓	✓
3	**Student & Faculty Accommodation and Amenities:** Expand Student and faculty accommodation and amenities based on new initiatives.	✓	✓	✓
4	**Renewable Energy:** Expand renewable energy usage progressively meeting the campus energy requirements.	✓	✓	✓
5	**Learning Resources:** Enhance physical and digital learning resources through the library.	✓	✓	✓
6	**Digital Infrastructure:** Enhance digital Infrastructure in all aspects to create a smart and sustainable campus.	✓	✓	✓
7	**Sustainable Transportation:** Enhance transportation and connectivity through sustainable initiatives, including the integration of CNG and e-vehicles.	✓	✓	✓
8	**Centre for waste recycling:** Establish an inhouse centre to recycle and reuse waste to promote waste to wealth.	✓	✓	✓
9	**Sports and Recreational Infrastructure:** Create sports and recreational infrastructure with international standards	✓	✓	✓

The strategic goals with respect to infrastructure of DU will be achieved by:

Academic and Administrative Buildings: Constructing the additional academic and administrative buildings required for the proposed deemed to be university by effectively utilizing the natural lighting and ventilation through green building concepts.

Academic and Research Hubs: Developing world class academic and research infrastructure by augmenting the basic and latest equipment's in a phased manner to support high standards of academic and research in the campus.

Students and Faculty Accommodation: Improving the accommodation facilities for Indian, International students and faculty members with all the required facilities.

Digital Infrastructure: Enhancing the digital infrastructure in the campus to cover all the administrative and academic activities like admissions, fees collection, exam related activities, teaching-learning etc.

CNG and e-Vehicles: Purchasing e-vehicles, CNG vehicles and other environment friendly vehicles for all future transportation needs of students, staffs and guests. Also to convert all the existing vehicles in a phased manner for promoting sustainable transportation.

Renewable Energy: Increasing the share of renewable energy usage inside the campus for meeting the energy requirements of various activities like electric power consumption, water heating, cooking in the hostels etc. by expanding the capacity of existing solar PV systems, windmills, bio-gas plants in a phased manner.

Waste Re-cycling: Promoting waste-to-wealth concept in the campus by expanding the capacity of the existing waste recycling plant for handling all the liquid and solid wastes generated in the campus in an environment friendly manner. Annexure 3 highlights the initiatives in infrastructure.

7.6.3. Infrastructure: Five Years Rolling Implementation Plan for DU

In infrastructure, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Establish administrative and academic buildings as per the requirements.	1. Construct buildings for key officials as per the requirement 2. Construct buildings for academic requirements 3. Construct buildings and spaces for support services	Administrative building	4500 m^2	-	-	-	-
			Academic and research building	-	1300 m^2	1300 m^2	1300 m^2	1300 m^2
			Basic amenities area	2000 m^2	2000 m^2	2000 m^2	2000 m^2	2000 m^2
			Food court	1000 m^2				
2.	Create World-Class Academic and Research Hubs	1. Purchasing of Major lab equipment for new courses 2. Purchasing advanced lab equipment for research	Major equipment	10	10	20	20	20
3.	Expand Student and faculty Accommodation	1. Construct student housing 2. Construct staff housing	Hostel units	1 for 350 boys + 1	1 for foreign students	-	-	-

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
	and Amenities based on new initiatives.			for 150 girls				
			Quarters	50 Faculty	25 Staff	50 Faculty	50 Staff	100 Faculty
4.	Enhance physical and digital facilities in classrooms and library	1. Convert classrooms into smart classrooms 2. Construct smart classrooms 3. Purchase books 4. Subscribe to journals and periodicals	Smart Classrooms	20	20	20	20	20
			Books and Journals Print	5000	5000	5000	5000	5000
			Digital Resources	500	1000	1000	1500	1500
5.	Enhance transportation and connectivity	1. Purchase vehicles 2. Introduce new routes	Electric buses	2	2	2	2	2
			Other vehicles	3	5	5	10	10
			New routes	5	10	10	15	15

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
6.	Expand renewable energy usage progressively meeting the campus energy requirements.	1. Install additional capacity of Solar PV 2. Replace lights and fixtures with LED 3. Install solar powered lights	Renewable energy usage	15%	20%	20%	30%	30%
7.	Establish an ecofriendly safe natural wastewater treatment and management system	1. Install a pilot facility 2. Run trials 3. Extend the facility for entire campus	Natural wastewater management facility	1	-	-	-	-
8.	Establish an inhouse centre recycle, reuse of waste to promote waste to wealth.	1. Develop new system for waste management and reuse 2. Integrate existing system with the new system	Inhouse centre to recycle and reuse waste	-	1	-	-	-

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
9.	Create sports and recreational infrastructure with international standards	1. Construct indoor stadium 2. Construct new air-conditioned auditorium 3. Construct a swimming pool 4. Augment existing sports and games courts	International Sports and Recreational Infrastructure	-	Swimming Pool	New Auditorium		
						Indoor Stadium		

7.7. Career Guidance and Placement Plan

7.7.1. Career Guidance and Placement: Strengths and Achievements of MCET

Over the past five academic years, from 2019-2020 to 2023-2024, the number of eligible students for placements ranged from 629 to 783. The number of students placed varied from 468 to 661, indicating a consistent placement record. The number of companies visiting for placements increased from 72 to 190, showcasing growing industry interest. The highest salary offered also saw a notable increase, from 7.5 LPA to 27 LPA, reflecting the improving quality of placements. Overall, the trend indicates a positive trajectory in placements, with more students securing placements in a diverse range of companies and higher salary packages being offered.

Table 7.1: Placement statistics for the period 2019 to 2024

Sl. No.	Academic Year	No. of Students Eligible	No. of Students Placed	Companies Visited	Highest Salary
1	2019-2020	685	485	90	7.5 LPA
2	2020-2021	629	515	72	11.5 LPA
3	2021-2022	736	661	80	8.5 LPA
4	2022-2023	783	592	95	8.5 LPA
5	2023-2024	698	468	190	13 LPA
6	2024-2025*	659	186	77	27 LPA

* Placement season in progress

Every year around 1000 students attend internships at industry through the 2-4-12/24 model unique to MCET. The **career planning and guidance division** of the college encompasses the functions of trainings, placements, internships, entrepreneurship and higher education. The **Centre for Higher Education, Competitive Examinations and Foreign Languages** (CHECEFL) and **Centre Innovation Business Incubation and Entrepreneurship** (CIBIE) along with the

training and placement cell take-up various activities to ensure good career prospects for students.

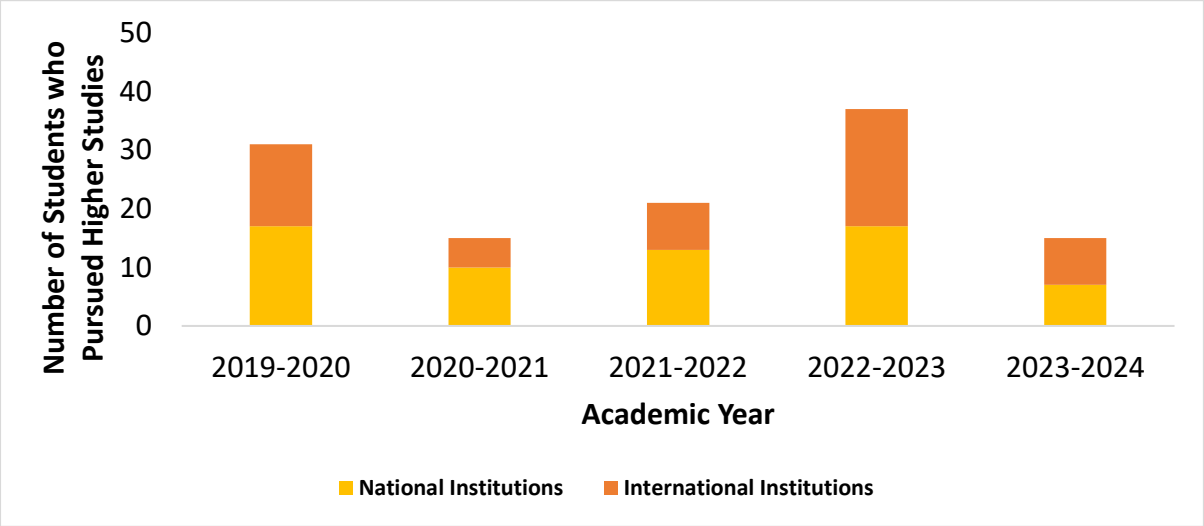


Figure 7.9: Number of students pursuing higher studies after under graduation for the period 2019 to 2024

MCET also takes pride in promoting the culture of entrepreneurship right from the early years of education. Policies and support mechanisms exist for students to start and run a business inside the campus and later migrate it outside. There are also program such as **the FORGE accelerator, WEN ignite** that are run every year to promote entrepreneurial mindset. Participation in **Smart India Hackathons (SIH)** is a routine activity giving students an opportunity to explore ideas and find solutions that can later transform into businesses.

7.7.2. Career Guidance and Placement: Fifteen Years Strategic Plan of DU

Strategy for Career Guidance and Placement

- **Fulfil the career aspirations of learners through personalized career coaching, and collaboration with institutions, industries, and organizations across the globe.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in career guidance and placement:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1.	**Early Talent Identification Programs:** Develop the curriculum in schools to identify talent early and offer targeted support for placements, higher studies, and entrepreneurship.	✓	✓	✓
2.	**Collaborative Education:** Sign Memorandums of Understanding (MoUs) with leading companies (e.g., Capgemini, TVS Motor) to offer collaborative education programs aimed at ensuring careers for students with preparations for specific roles.	✓	✓	✓
3.	**Internship-Based Placement Model:** Introduce a flexible 2-4-12/24-month internship model to align placements with students' portfolios and career aspirations, enhancing practical experience and job readiness.	✓	✓	✓
4.	**Courses for Entrepreneurship:** Offer diverse programs and courses designed to equip young professionals with essential skills for entrepreneurship, with a focus on practical learning, critical thinking, and innovation.	✓	✓	✓
5	**Highly Skilled Career Coaches:** Provide access to highly skilled career coaches who offer personalized guidance and support, helping students navigate their		✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
	career journeys with confidence and clarity.			
6	**Training for Qualifying/ Competitive Examinations:** Offer comprehensive training for exams such as GATE, GRE, TOEFL, UPSC, and CAT alongside the curriculum, preparing students for higher studies and government jobs.	✓	✓	✓
8	**Global Internships and Placements:** Offer courses in languages such as German and Japanese, enhancing students' prospects for international internships and placements.	✓	✓	✓
9	**Startup Support and Make in India Promotion: S**upport startups that create job opportunities for youth in the region, aligning with the Make In India initiative through mentorship, resources, and infrastructure.	✓	✓	✓
10	**Entrepreneurial Motivation:** Encourage youth to aspire to entrepreneurship through early interventions in schools, fostering an entrepreneurial mindset and contributing to economic growth.	✓	✓	✓

The strategic goals with respect to career guidance and placement of DU will be achieved by:

Talent Identification: Classifying the students based on career aspirations (placement, higher education, and entrepreneurship) very early in any program and offer coaching programs part of curricula.

Collaborative Education Program: Co creating human resources required for industries by partnership to meet the requirements of various roles of industries. These collaborations will create programs that bridge academic learning with industry needs ensuring that students are equipped with relevant skills.

Internship-Based Placement Model: Strengthening the of 2 – 4 – 12 /24 model by introducing flexible period in curriculum with higher stipend. This model will offer students practical experience and align their internships with career aspirations, improving job readiness.

Entrepreneurship & Make in India: Developing the culture of Entrepreneurship by providing courses in curriculum, support from faculty as mentors and partners, funding for start-up ventures.

Career Coaches: Providing students with access to career coaches who offer personalized guidance, resume-building, and interview preparation. These coaches will help students navigate their career paths effectively, ensuring focus on career readiness and student support.

Qualifying / Competitive Examinations: Providing learning paths in curriculum for exams such as GATE, GRE, TOEFL, UPSC, and CAT. This approach will prepare students for advanced studies and professional exams, enhancing their academic and career prospects.

Global Careers: Offering courses on foreign language in school of arts aimed at preparing students for life and career opportunities across global destinations.

7.7.3. Career Guidance and Placement: Five Years Rolling Implementation Plan for DU

In career guidance and placement, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Develop the curriculum to identify and nurture talent early, offering targeted support and development opportunities to prepare students for placements and higher studies.	1. Develop the courses for Placements. 2. Develop the courses for higher studies.	No. of courses Developed for Placements.	2	4	6	8	10
			No. of courses developed for higher studies	2	4	6	8	10
2.	Sign Memorandums of Understanding (MoUs) with leading companies (e.g., Capgemini, TVS Motor) to provide collaborative education programs aimed at learning for being role ready.	1. Signing MoU for collaborative education programs (CEP). 2. Identify the domain for placements.	No. of MoUs for CEP	2	6	12	24	24
			No. of domains for placement under CEP	4	12	24	48	48
			No. of Student Beneficiaries	40	120	240	480	480
3.	Introduce a flexible 2-4-12/24-weeks internship model to align	1. Sign MoU with industries for internship.	No. of MoUs for Internship	10	20	50	70	80

Sl. No.	Outcomes	Actions	Deliverables	Cumulative Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
	placements with students' portfolios and career aspirations, enhancing practical experience and job readiness.	2. Provide solutions for industries through student projects.	No. students project for provide solutions	-	50	56	62	68
			No. of Student Beneficiaries	-	500	560	620	680
4.	Offer diverse programs and courses designed to equip young professionals with essential skills for entrepreneurship, with a focus on practical learning, critical thinking, and innovation.	1. Design course for entrepreneurship. 2. Design course for practical learning, critical thinking, and innovation.	No. of course for entrepreneurship	2	4	6	8	10
			No. of course for critical thinking, and innovation.	2	4	6	8	10
			No. of Student Beneficiaries	40	120	240	480	480

7.8. Networking and Collaboration Plan

7.8.1. Networking and Collaboration: Strength and Achievements of MCET

MCET is proud of active MoUs with corporates, organizations and universities impacting multiple facets of its growth and development. The **collaborative education program with M/S. TVS Motors - Hosur, Capgemini Engineering - India, NTT Data Services - India, Renault Nissan Technology Business Center – India, VVDN Technologies – Pollachi,** etc. are some of the noteworthy partnerships that contribute to talent development of both students and faculty. Other partnerships like the ones with **Zenken India**, helps MCET prepare students in foreign languages, Japanese in this case. Partnerships with **Cape Breton University, Canada** for example has contributed significantly to student higher studies and faculty research. MCET also boasts of partnerships with companies like **L&T Defence - Coimbatore**, where the onboarding training requirements are taken care by experts from the college.

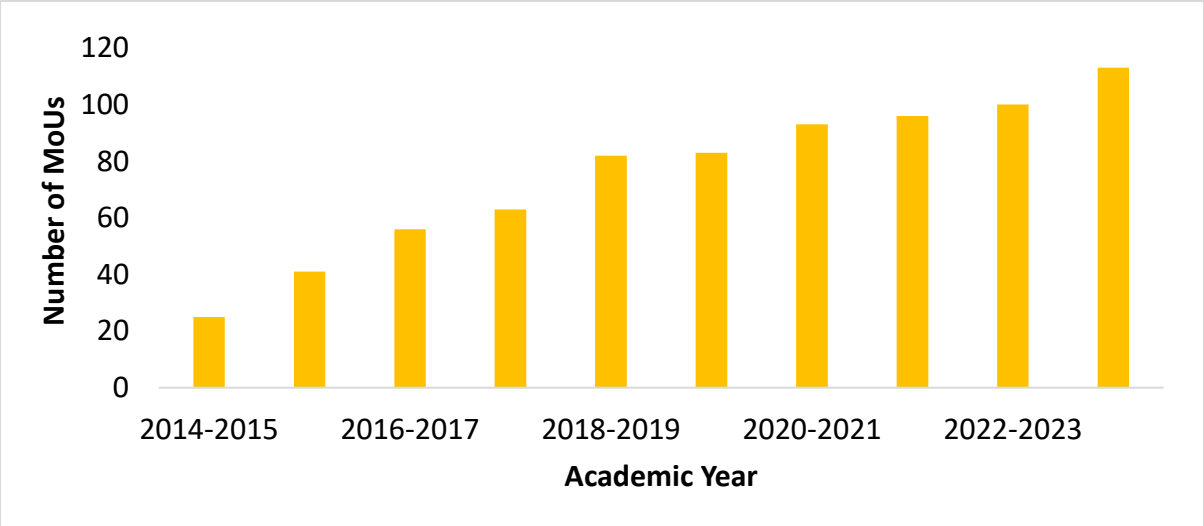


Figure 7.10: Number of MoUs for the period 2014 to 2024

The diverse initiatives undertaken by MCET reflect a steadfast commitment growth and development of students, faculty and professionals. MCET also has

strong societal welfare and **community engagement** activities due to the location and connection with **34 villages in the region**.

Health and Wellness Initiatives: MCET actively organizes **Blood Donation camps, Eye camps, Covid vaccination camps, and RT-PCR test camps**. These initiatives aim not only to provide essential healthcare services but also to promote a culture of health awareness and community support. By facilitating access to healthcare services, MCET contributes significantly to the well-being of both students and the wider community.

Community Empowerment and Civic Engagement: **Special Aadhar camps, Traffic Awareness Programs, and Election Awareness Programs** organized by MCET underscore our commitment to civic responsibility and empowerment. These initiatives educate and empower individuals on their rights and responsibilities as citizens, promoting active participation in democratic processes and societal issues. Environmental Sustainability and Conservation: MCET's initiatives include Conservation of Electricity, Tree Plantation drives, and participation in Jal Shakthi Abhiyan and Swachh Bharat campaigns. These efforts aim to instil a sense of environmental stewardship among students and community members, fostering sustainable practices and ensuring the preservation of natural resources for future generations.

Education and Skill Development: MCET's **School Cluster Program** for government school students, Skill Development programs, and Awareness Programs on Entrepreneurship Development are designed to empower individuals with knowledge and skills essential for personal and professional growth. These initiatives bridge educational gaps, promote lifelong learning, and enhance employability prospects, thereby contributing to socio-economic development.

Social Responsibility and Advocacy: MCET actively engages through initiatives like **Dinamalar Jaithu Kaattuvom**, aimed at raising awareness and advocating for pressing social issues. By fostering a culture of empathy, advocacy, and action, MCET encourages students and community members to become agents of positive change in society.

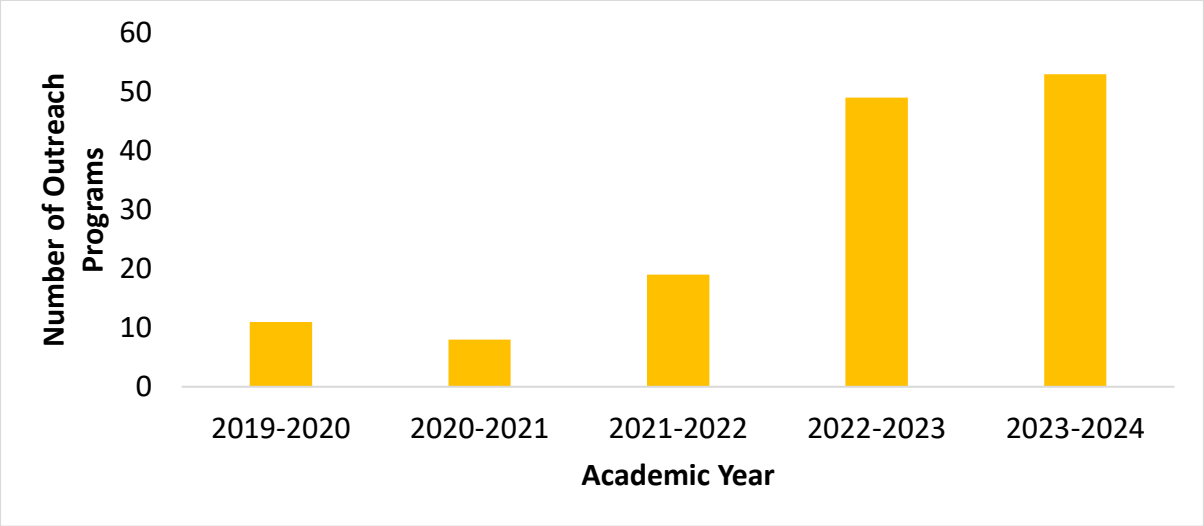


Figure 7.11: Number of outreach programs for the period 2019 to 2024

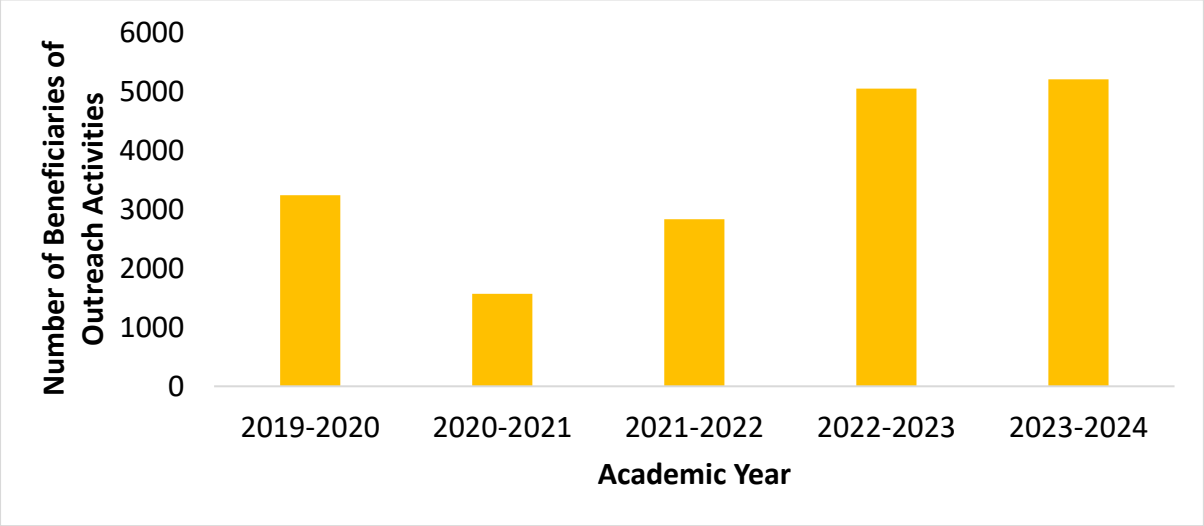


Figure 7.12: Number of beneficiaries of outreach activities for the period 2019 to 2024

Student-Led Initiatives: MCET supports student involvement through clubs such as the **Environment Club and Citizen Consumer Club**. These platforms empower

students to take leadership roles in driving initiatives that promote sustainable practices, consumer awareness, and community engagement.

7.8.2. Networking and Collaboration: Fifteen Years Strategic Plan of DU

Strategy for Networking and Collaboration

- **Increase partnerships with institutions, industries and organizations for the benefit of multiple stakeholders.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in networking and collaboration:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1.	**Corporate Collaboration:** Establish partnerships with corporations to facilitate knowledge and skill exchange through internships, industry projects, guest lectures, and workshops for students, faculty, and professionals.	✓	✓	✓
2.	**International Schemes:** Develop schemes with international universities for student and faculty exchanges, joint research, and professional development, enhancing global exposure and career prospects.	✓	✓	✓
3.	**Collaborative Projects:** Form partnerships with schools, universities, corporations, and research establishments worldwide to execute projects that address global challenges and promote innovation.	✓	✓	✓
4.	**School Support:** Assist schools in upgrading facilities and activities to increase the Gross	✓	✓	✓

	Enrolment Ratio (GER) in higher education through resources, training, and mentorship.			
5.	**Sustainable Practices:** Implement sustainable practices within the institution and collaborations to contribute to environmental conservation and sustainable development, aligning with global sustainability goals.	✓	✓	✓
6.	**National Presence:** Establish campuses in other parts of India leveraging the evolving partnership, merger and acquisitions ecosystem.		✓	✓
7.	**Global Presence:** Establish campuses in other countries leveraging the evolving partnership, merger and acquisitions ecosystem.			✓

The strategic goals with respect to networking and collaboration of DU will be achieved by;

Strategic Partnerships: Establish collaboration with institutions, industry and organizations leveraging the ICE cube model (Annexure4) leading to multiple benefits for multiple stakeholders.

International Schemes: Develop international schemes with prestigious global universities for student, faculty, and staff exchanges. Formalize these collaborations through MoUs to enhance career prospects, promote joint research, and provide valuable cross-cultural competencies. This aligns with the vision of producing globally competent graduates who can thrive in an interconnected world.

Collaborative Projects and Innovation: Form strategic partnerships with schools, universities, corporations, and research institutions both in India and globally. Focus on funded and collaborative projects that address global challenges, drive innovation, and contribute to academic excellence and societal impact. Encourage a culture of collaboration and innovation to foster impactful solutions.

School Upgradation: Support higher secondary schools in the region by strengthening the school cluster program providing resources, training, and mentorship to upgrade facilities and activities. This will help create conducive learning environments that prepare students for higher education.

Consultancy Solutions for Industry Problems: Offer consultancy services to address industry-specific challenges. Leverage academic expertise to provide innovative solutions and strengthen industry-academia linkages, supporting continuous improvement and practical problem-solving.

Alumni Support: Leverage the strong alumni presence across the globe in building partnerships all over.

Group Support: Leverage the wide access to multiple industries and corporates associated with the Sakthi group companies/institutions in building new partnerships and maintaining existing partnerships.

Missions: Participate in study missions organized by the government and other entities such as CII and network globally. Also showcase the capabilities of the institution and country in multiple locations.

7.8.3. Networking and Collaboration: Five Years Rolling Implementation Plan for DU

In networking and collaboration, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcome	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Establish partnerships with corporations to facilitate knowledge and skill exchange through internships, industry projects, guest lectures, and workshops for students, faculty, and professionals.	1. Conduct skill development programs for industry personals. 2. Participate faculty members in internship program. 3. Provide solutions for industry problems through consultancy.	No. of skill development programs	10	10	20	20	30
			Faculty Beneficiaries in Internship	50	50	100	100	200
			No. of consultancy projects.	10	10	20	20	30
2.	Develop schemes with international universities for student and faculty exchanges, joint research, and professional development, enhancing global exposure and career prospects.	1.Introduce faculty exchange and student program. 2. Sign MoU for faculty and student exchange program	No of MoUs for with international universities	10	10	20	20	30
			No of faculty beneficiaries.	-	10	20	20	30

Sl. No.	Outcome	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
			No of student beneficiaries.	-	50	100	100	200
3.	Form partnerships with schools, universities, corporations, and research establishments worldwide to execute projects that address global challenges and promote innovation.	1.Participte in funded and collaborative projects with international universities.	No of international collaborative projects	-	-	10	10	20
		2. Participate in Post Doctoral program in international universities.	No. of Post Doctoral program participations	-	-	2	2	3
		3. Host foreign university faculty members and students for internships and projects	No of faculty participations from foreign universities	-	5	10	10	20

7.9. Alumni Engagement Plan

7.9.1. Alumni Engagement: Strengths and Achievements of MCET

Inaugurated on January 26, 2003, and registered under the Tamil Nadu Societies Registration Act, 1975, the MCET Alumni Association has been instrumental in promoting interaction and camaraderie among alumni, students, and the management. Since its inception, Alumni Association has actively strengthened bonds by providing opportunities to share knowledge and experiences and facilitating the exchange of quality ideas and perspectives. With **16728 alumni spread across seven chapters**, **managed by 30 office bearers** MCET Alumni Association serves as a vital link between the institution and its alumni.

To further its mission, MCET Alumni Association has developed a dedicated **website and Mobile App** at www.alumni.mcet.in, enabling alumni to collaborate, enhance their networks, and exchange thoughts. Launched in 2018, the **mentorship program MCET One**, with the tagline "Get the Right Opportunity, Network & Exposure," connects alumni with students for career advancement and community building through one-to-one mentorship.

The campus chapter acts as a nodal centre for MCET Alumni Association operations, led by an executive body comprising the President, Secretary, Vice President, Joint Secretary, Treasurer, and office bearers. Additional chapters in **Chennai, Coimbatore, Bengaluru, Southeast Asia and Australia** established in 2004, 2009, 2011, 2023 and 2024 respectively, conduct alumni get-togethers and interactions to maintain strong connections among members.

MCET Alumni Association promotes internationalization, self-reliance, and sustainable development through its various activities. Each year, distinguished alumni from sectors such as private industry, civil services, research,

entrepreneurship, and social services are recognized and awarded during the Annual Day celebrations for their significant contributions.

Alumni voluntarily serve as resource persons for programs like the **Student Talent Enhancement Program (STEP), STEP - Unleashing Potential (STEP-UP), Program Assessment Committee, Board of Studies, Higher Study Awareness Program, Mock Interviews, and Student Induction Programs**. Financial contributions through the alumni endowment fund further support MCET Alumni Association's initiatives.

Photo: Glimpse of alumni activities

The knowledge and networking capabilities of alumni assist students in securing placements, internships, and live project opportunities within their own companies or with their employers. One-credit courses and open electives are designed based on consolidated **alumni feedback, ensuring that the curriculum remains relevant to industry standards** and current trends. Every year there is one chapter meet and one meet in campus. Also, alumni keep visiting the campus whenever possible. MCET alumni association has the **strong backing of**

the Nachimuthu Polytechnic Association which has more than a ONE lac alumni who have risen to doyen levels in business and professional life.

7.9.2. Alumni Engagement: Fifteen Years Strategic Plan of DU

Strategy for Alumni Engagement

- **Engage with alumni through awards and recognitions and leverage their expertise and socio-economic standing for the growth of institution.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in alumni engagement:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1.	**Awards and Recognitions:** Institute awards and recognitions for alumni	✓	✓	✓
2.	**Course Content Development:** Engage alumni as Subject Matter Experts (SMEs) to contribute to the development of course content, ensuring it remains relevant and industry driven.	✓	✓	✓
3.	**Knowledge Sharing Workshops:** Organize workshops facilitated by alumni in emerging areas to foster knowledge exchange and provide students with insights into current industry trends.	✓	✓	✓
4.	**Curriculum Development:** Include alumni in the Board of Studies (BoS) to contribute to curriculum development, ensuring it meets industry standards and prepares students for the workforce.	✓	✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
5.	**External Project Guides:** Allow alumni to act as external project guides, providing students with real-world insights and mentorship for their project works.	✓	✓	✓
6.	**Alumni Mentorship Program:** Develop a structured mentorship program where alumni are paired with current students based on their field of expertise, providing guidance and support for personal and professional growth.	✓	✓	✓
7.	**Placement Support:** Provide support to alumni who wish to contribute to student placement through training programs and internship opportunities in collaboration with the university's placement cell.		✓	✓
8.	**LMS Participation:** Include alumni in the university's Learning Management System (LMS), providing them with access to resources and opportunities to engage with current students.		✓	✓
9.	**Visiting/Adjunct Faculty:** Invite alumni to serve as visiting or adjunct faculty, leveraging their practical experience to enhance the academic environment.		✓	✓
10.	**Development Fund:** Encourage alumni to contribute to the development of university infrastructure, providing scholarships, projects etc..			✓

The strategic goals with respect to alumni engagement of DU will be achieved by:

Alumni Recognition: Recognizing alumni with awards, citations and appreciation letters will continue to motivate them to grow and later contribute back as part of self-actualization.

Academic Support: Engaging alumni as Subject Matter Experts (SMEs) to contribute to course content development, knowledge sharing workshops, curriculum development. Alumni will also be contributing to infrastructure development and scholarships through funds organized through the alumni association.

Life Long Learning: Providing access to course contents in LMS lifelong ensures seamless transition into programs of higher learning when alumni seek admission for their further learning and development. This will also enable their professional development.

Professor of Practice: Appointing experienced alumni as adjunct faculty and Professor of Practice to offer insights into latest technological trends in industries.

Career Coaching: Encouraging alumni to mentor students for various career options can lead to placements, higher studies and startups. Joint startups within the institutional ecosystem with alumni as partners will bring lots of opportunities for students.

Consultancy Groups: Engaging alumni freelancers as consultants will strengthen the technical capabilities of students and faculty to handle complex consultancy projects. Mechanisms to promote these groups will be in place in the proposed deemed to be university.

7.9.3. Alumni Engagement: Five Years Rolling Implementation Plan for DU

In alumni engagement, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcome	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Engage alumni as Subject Matter Experts (SMEs) to contribute to the development of course content, ensuring it remains relevant and industry-driven.	1. Prepare list of alumni willing to act as a SMEs based on their domain expertise. 2. Review the course contents using alumni.	No. of alumni will act as SME	30	30	40	40	50
			No. of courses developed with the support of Alumni.	60	80	100	120	140
2.	Organize workshops facilitated by alumni in emerging areas to foster knowledge exchange and provide students with insights into current industry trends.	1. Prepare list of alumni willing to participate in knowledge exchange programs. 2. Conduct knowledge sharing sessions	No. of alumni acted as knowledge provider	50	60	100	150	200
			No. of workshop / seminar organized by alumni	50	60	100	150	200

Sl. No.	Outcome	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
			No. of student beneficiaries.	200	600	1800	2400	3000
3.	Include alumni in the Board of Studies (BoS) to contribute to curriculum development, ensuring it meets industry standards and prepares students for the workforce.	1. Identify the suitable alumni to act as member of BoS.	No. of alumni will act as member of BoS	30	40	50	60	70
4.	Allow alumni to act as external project guides, providing students with real-world insights and mentorship for their project works.	1. Identify the suitable alumni to act as project guide for student projects.	No. of alumni project guides		50	150	200	200
			No. of student beneficiaries		150	450	600	600
5.	Engage alumni as mentors to junior students enabling them to shape their careers	1. Link willing alumni with students 2. Monitor the engagement between alumni and student mentees	No of alumni mentors	500	1000	1000	1000	1000

7.10. Governance and Administration Plan

7.10.1. Governance and Administration: Strengths and Achievements of MCET

All the statutory bodies required for the successful operation of the autonomous college are constituted and perform the roles and responsibilities as prescribed by UGC. Their constitution was discussed in the earlier section. Effective governance has ensured continuous growth and effective navigation during challenging times such as COVID 19. There have been **continuous strategic plans** developed during regular periods and the same have been implemented with task forces to reach the intended outcomes. MCET also boasts of awards like the **Great Place to Work** which signifies the governance and administrative practices. It is also proud of the various welfare schemes implemented for the students and staff right from insurance to family ben The institution has employed several welfare measures for the benefit of teaching and non-teaching staff.

MCET **Staff Family Benefit Fund** was implemented from May 2005. INR.100/- is deducted every month from the salary of staff. The management contributes the equal amount (INR.100/-) every year. INR. 25,000/- shall be paid to deceased staff member's family due to accidental demise. INR.5000/- shall be paid to meet funeral expenses of staff's family members. Upon leaving the institution the total amount accumulated is returned to the staff.

NIA Educational Institution **Employees Co-op Thrift & Credit Society**, functions from July 2015 onwards with Tamil Nadu Co- operative Thrift & Credit Society act. Loans with nominal interest is sanctioned to the staff who have completed minimum 2 years of continuous service at MCET. The maximum loan amount is either INR.4 lakhs or 10 times of the take home salary whichever is less.

Staff of MCET are covered by the group insurance and accident safety **insurance** and the premium is paid by the management. On the accidental death of staff / permanent total disability / partial disability INR.4,00,000 (Star Health Accidental Insurance policy) is paid also INR.1,50,000/- per annum can be claimed towards medical expenses of staff due to hospitalization. Staff are also eligible for a death benefit of average monthly wages drawn (calculation as per norms of PF) subject to a total ceiling of Rs. 7,02,000 (EDLI) and death benefit to staff members to a maximum of Rs.38,000 (EGI).

Other welfare schemes include **superannuation benefits of EPF, Family Pension Scheme, Employee State Insurance (ESI)** implemented as per the respective acts. **Gratuity scheme** is accessible for staff who have completed 5 years of continuous service. During fulltime Ph.D. course work, management provides 50% of salary. Supporting staff are permitted to pursue B.E., (Part Time) with full salary and 50% of the tuition fees is provided by the management. **Faculty are fully sponsored for abroad visits / industry training. Sponsorship is provided to Teaching / Non-Teaching staff for FDP participation, appearing in exams as well.**

Beneficiaries of various welfare schemes;

128 staff have received gratuity amount.

51 staff have benefited by the Mediguard, Road safety, EGI and EDLI scheme.

247 staff have availed loans through Thrift society.

408 staff have received sponsorship for attending seminars, workshops and other faculty development activities.

96 students have benefitted by Accidental death/Permanent total disablement of student, Accidental death/Permanent total disablement of parent/ guardian and Reimbursement of medical expenses (accident) to a total amount of around INR. 1.3 crores.

Governing Council: The Governing Council directs the institution towards its vision and mission by approving the Strategic Plan and budget, ensuring effective resource utilization. It oversees key decisions in admissions, program introductions, infrastructure, teaching-learning processes, and placements.

Academic Council: The Academic Council manages academic activities, framing policies, approving courses, and establishing curricula and syllabi. By involving faculty, university representatives, and government experts, it ensures high standards and current academic offerings.

Finance Committee: The Finance Committee advises on financial matters, prepares income and expenditure statements, and recommends tuition and fees, ensuring efficient resource allocation.

Board of Studies: The Board of Studies maintains and enhances academic quality by framing, reviewing, and updating curricula and syllabi. It introduces new courses and refines assessment methods to meet evolving educational needs.

Selection Committee: The Selection Committee ensures fair and transparent recruitment and selection processes for faculty and staff. It evaluates candidates based on qualifications, experience, and fit with the institution's mission, ensuring that the best candidates are chosen to support the college's educational excellence and strategic goals.

Supporting Committees:

1. Campus maintenance
2. Grievance Redressal Committee
3. Library advisory committee

4. Central purchase committee
5. Anti ragging committee
6. Hostel admission committee
7. Internal complaint committee

7.10.2. Governance and Administration: Fifteen Years Strategic Plan of DU

Strategy for Governance and Administration

- **Drive sustainable growth and excellence through transparent, accountable, and inclusive governance with ethical leadership.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in governance and administration:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1	**Establish a Robust Statutory Body:** Form a statutory body comprising eminent academicians and industry leaders to provide strategic oversight and guidance.	✓		
2	**Structured Meeting Schedule:** Adhere to an annual calendar for all statutory body meetings to ensure regular review and decision-making aligned with institutional goals.	✓	✓	✓
3	**Comprehensive Documentation:** Maintain detailed records and Action Taken Reports (ATRs) of all statutory body meetings to track progress and accountability.	✓	✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
4	**Effective Plan and Policy Communication:** Conduct town hall meetings to disseminate policies, articulate goals, and align stakeholders with the university's future direction.	✓	✓	✓
5	**Promote Good Governance:** Implement best practices across all university functions to enhance transparency, efficiency, and ethical conduct.	✓	✓	✓
6	**Digital Infrastructure:** Enhance digital Infrastructure in all aspects to create a smart and sustainable campus.	✓	✓	✓
7	**Audits:** Conduct periodic reviews and audits both internally and with external auditors to check for quality and constantly improve.	✓	✓	✓

The strategic goals with respect to governance and administration of DU will be achieved by:

Leadership: Having acclaimed leaders in the statutory bodies of the institution will guide policy making, this along with proactive leaders for implementation, ensures momentum and rapid scaling of operations, fostering institutional growth, efficiency and effectiveness.

Executive Council: Constituting an executive council with leaders from diverse backgrounds to recommend new processes and systems for the institution fosters innovation, growth, and ensures a well-rounded approach to development.

Digitalization: Introducing digital initiatives aligned with national priorities eases internal operations and supports government programs like ABC, SWAYAM, NDL, Shodhganga, SMARTH, and VIDWAN, enhancing educational quality and experiences for teachers, learners, alumni, parents and partners.

Town Halls: Conducting periodic townhalls with multiple stakeholders facilitates policy advocacy and implementation, ensuring transparency, accountability, and collaborative decision-making, ultimately fostering trust and engagement within the community.

Benchmarks: Benchmarking global practices and those of leading universities helps institutions learn and grow by adopting innovative strategies, improving educational quality, and staying competitive in the global academic landscape.

Talent Development: Focusing on developing administrative capacity through periodic professional development programs and formal education initiatives for key stakeholders ensures continuous improvement, effective leadership, and enhanced institutional performance.

Heritage and Culture: Conducting sessions on values, ethics, culture, and heritage helps instil these principles in students, fostering the growth of indigenous systems. These sessions ensure the welfare and development of multiple stakeholders by promoting ethical behaviour, cultural appreciation, and social responsibility, ultimately contributing to a more inclusive and sustainable community.

7.10.3. Governance and Administration: Five Years Rolling Implementation Plan for DU

In governance and administration, DU will target the following outcomes and outputs in the five years implementation plan.

Sl. No.	Outcomes	Actions	Deliverables	Outputs				
				2025-26	2026-27	2027-28	2028-29	2029-30
1.	Adhere to an annual calendar for all statutory body meetings	1. Conduct regular Executive council, Finance committee, Academic council and Board studies meetings	No. of meetings of executive council, finance committee, and academic council per year	4	4	4	4	4
			No. of Board studies meetings	4	4	4	4	4
2.	Execute strategic plans providing future direction and ensuring achievement of intended goals	1. Prepare strategic plans 2. Prepare annual operating plans 3. Review implementation of plans	Strategic Plans	1	-	-	-	1
			Annual Operating Plans	1	1	1	1	1
			Reviews of AOP	4	4	4	4	4
3.	Ensure quality assurance through reviews and audits	1. Conduct internal and external audits and reviews 2. Conduct academic and administrative audit	Internal audits	4	4	4	4	4
			External audits	2	2	2	2	2
			Academic and Administrative audits	1	1	1	1	1

7.11. Finance Plan

7.11.1. Finance: Strengths and Achievements of MCET

Dr. Mahalingam College of Engineering and Technology, established by the **Sakthi Group under the NIA institutions**, benefits from the robust support of this business conglomerate, which has a legacy spanning over 90 years. The Sakthi Group, alongside NIA institutions, has experienced consistent growth in both scale and numbers over the years. The college maintains a **rigorous financial system, incorporating thorough budgeting procedures, audits, and regular reviews**. The audited financial statements for the past three years are available in the annexure 5.

7.10.2. Finance: Fifteen Years Strategic Plan of DU

Strategy for Finance

- **Continuously invest in institutional growth and improvement by implementing sound financial practices.**

The proposed Deemed to be University will achieve the following strategic goals in three phases in finance:

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
1	**Sound Financial Practices:** Ensure Long-Term Institutional Sustainability by sound financial practices.	✓	✓	✓
2	**Source of Funds:** Create additional management funds and investments from Endowments,	✓	✓	✓

Sl. No.	Goals	Phase -1 (AY 2025-26 to 2029-30)	Phase -2 (AY 2030-31 to 2034-35)	Phase -3 (AY 2035-36 to 2039-40)
	alumni networks, Public-Private Partnerships, consultancy and project works.			
3	**Environment and Society:** Ensure Environmental and Social Governance (ESG) in Investments	✓	✓	✓
4	**Risk Management:** Enhance a comprehensive financial risk management framework through various strategies.	✓	✓	✓

Through robust endowment strategies, engagement with a vibrant alumni network, strategic Public-Private Partnerships (PPPs), and leveraging consultancy and project works, we aim to diversify revenue streams and bolster financial resilience. DU commits to Environmental and Social Governance (ESG) principles, ensuring that its investments align with sustainable practices. Moreover, DU will have a sound financial risk management framework.

The deemed to be University will generate income from the following primary sources;

1. Tuition Fees
2. Hostel fees
3. Transportation fees
4. Fund from management
5. Consultancy
6. Grants
7. Endowments

DU will use the pay for service philosophy including credit-based fees while charging for any of the services provided.

7.11.3. Finance: Five Years Rolling Implementation Plan for DU

In finance, DU will target the following outcomes and outputs in the five years implementation plan.

DU will incur the following expenses towards the inception and development of the university in the next five years managing funds from income sources already mentioned. Management will continue to contribute any shortfall in funds.

Table 7.2: Expense to be incurred in 5 years rolling implementation plan

	2025-26	2026-27	2027-28	2028-29	2029-30
Academic Plan	50	100	200	200	200
Recruitment	50	50	50	50	50
Admission	500	500	400	200	200
Research	300	500	800	1000	1300
Research Centre (CoE)	2000	400	300	200	100
Campus ICT	400	300	300	300	300
Infrastructure	3500	3000	2500	1000	500
Career development	100	200	400	500	500
Network and Collaboration	75	80	85	90	95
Alumni engagement	50	60	70	80	80
Governance and Administration	200	200	200	200	200
Salary	1320	2550	3875	5300	5450
Expense	**8545**	**7940**	**9180**	**9120**	**8975**

All amounts mentioned in table are in INR Lacs

8. Conclusion

The National Education Policy (NEP) 2020 envisions a transformative approach to higher education in India, emphasizing the establishment of multidisciplinary institutions. This vision aims to break down the silos between disciplines, fostering a holistic and integrated learning environment. The integration of the National Skills Qualifications Framework (NSQF) and the National Credit Framework (NCrF) further supports this vision, ensuring a seamless blend of academic and vocational education. DU is dedicated to fostering academic excellence and preparing students for future success through a comprehensive framework aligned with National Education Policy 2020 and Sustainable Development Goals (SDGs) 2030. The implementation of a credit-based fee structure ensures fairness and accessibility, supporting equitable education opportunities and incentivizing timely degree completion. Our commitment to collaboration and networking is evident in initiatives such as teaching assistance, internships with stipends, and the promotion of vocational programs, all designed to enhance practical skills and employability in alignment with the National Skills Qualification Framework (NSQF).

Moreover, we embrace the importance of globally recognized credentials through micro-credentialing, empowering students with contemporary competencies like agile practices and cybersecurity awareness. Faculty sabbaticals further enrich our educational environment, promoting scholarly activities and fostering innovation across disciplines. Our support for entrepreneurial ventures through student startups nurtures creativity and contributes to sustainable industrial growth.

Facilitating global immersion experiences and continuing education opportunities underscores our commitment to holistic development and

lifelong learning. Research internships provide invaluable exposure to cutting-edge projects and collaboration with industry experts, preparing students for roles in an evolving global landscape.

Furthermore, our implementation of an Academic Flexi Credit System allows for personalized academic journeys, offering multiple entry and exit points to accommodate diverse learning paths as envisioned by NEP 2020. Educative assessments and the establishment of an Academic Bank of Credit enhance learning outcomes and facilitate seamless academic progress tracking.

In essence, these initiatives with ten differentiators, collectively reinforce DU's mission to deliver quality education, foster innovation, and equip learners with the skills and knowledge needed to address global challenges and contribute meaningfully to society.

The aim of university education should be to turn out true servants of the people who will live and die for the country's freedom. Mahatma Gandhi.

Annexures

CDIO at DU

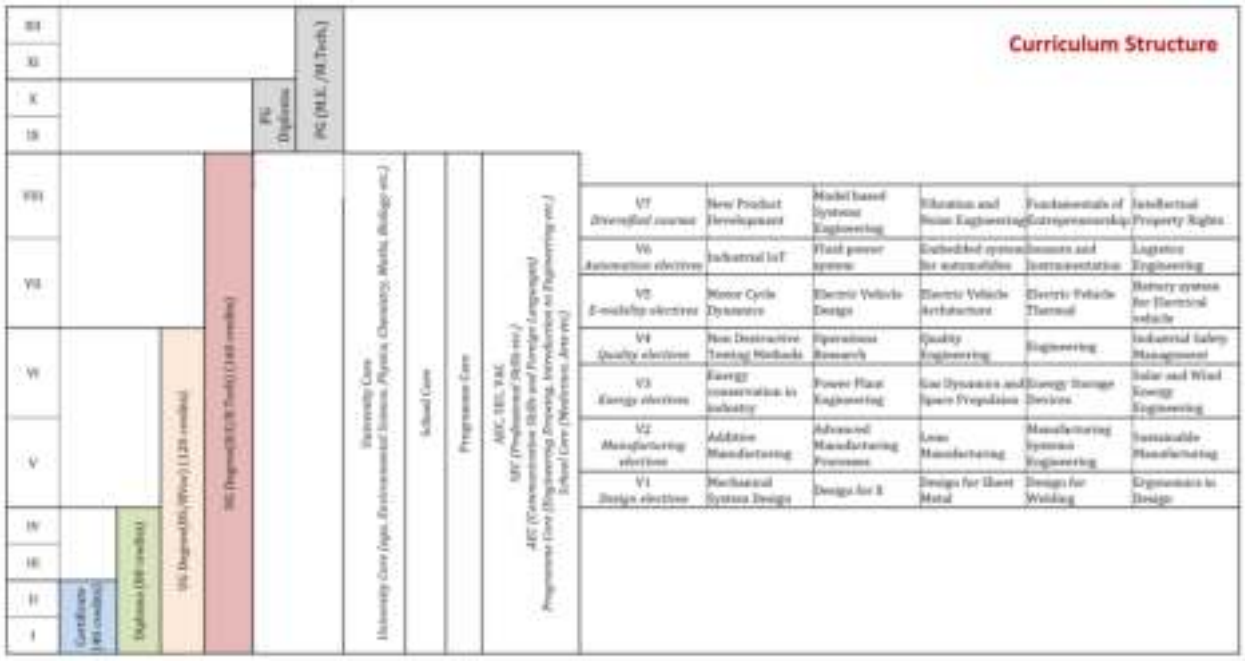
Purpose

Improve hands-on learning experiences leading to products that will be made in interdisciplinary/multidisciplinary environments.

Outcomes	● Significant learning experiences ● Flexible curriculum ● Innovative assessment methods ● Patentable products/services
Description	● Conceive: Identify needs, define requirements, and brainstorm solutions. Design: Develop detailed plans, models, and prototypes. Implement: Construct and test the system or product through manufacturing, coding, and assembly. Operate: Use, maintain, monitor performance, troubleshoot, and adjust the system or product for optimal operation. Minimum of three BUILD experiences requiring networking across programs in a four-year program ● O in first year level programs ● I-O in second year level programs ● D-I-O in third year level programs ● C-D-I-O in four year level programs
Milestones	● Pilot: Completed in B.E. Mechanical Engineering program and B.E. Electrical and Electronics Engineering program ● POC: Extended to B.E. Automobile Engineering program ● Deployment: Planned in DU
Major Upcoming Steps	● Introduce DIO with interdisciplinary approach in product building ● Introduce flexibilities in curriculum and assessments to support interdisciplinary approach ● Obtain membership in CDIO and learn from global peers ● Attempt multidisciplinary approach in product building ● Extend to support start-up ecosystem
Core Team	● Dean Academic and Autonomous ● Head Teaching Learning Centre ● One Faculty Champion from each Department

Current Status	● Initial stages of proof of concept in THREE undergraduate engineering programs
Current Challenges	● Flexibility of the curricular structure ● Adoption of innovative assessment methods

Sample curriculum structure in engineering programs that will support the deployment



Research Park at DU

Purpose

Promote interdisciplinary/multidisciplinary research.

Outcomes	● Funded projects ● Patentable products ● Publications ● Consultancy and testing services
Description	● An exclusive research park catering to the needs of multiple domains and as a shared facility for all departments in the institution will be set up. This will match the contemporary and futuristic research requirements of the institution and its researchers.
Milestones	● Establishment of research facilities ● Interdisciplinary and multidisciplinary projects ● Doctoral and post-doctoral works
Major Upcoming Steps	● Create buildings and amenities required for the research facilities ● Order and obtain specialized equipment ● Announce research programs and fellowships
Core Team	● Dean Research and Innovation ● Head of central research facility ● One Faculty Champion from each Department
Current Status	● Seven research centres, 12 research interest groups are working on current research topics. Five central research facilities in the research park with a total investment of INR30 crores excluding buildings are planned in the initial phase.
Current Challenges	● Lack of provisions to operate an independent PhD program ● No post-doctoral programs

S.No	Facility and Collaborating Departments	Name of the Major Equipment	Outcomes of the Centre
1.	Advanced Centre for New Product Development and Material Characterization. Sciences, Mechanical and Civil Departments	• FESEM with EDS (Elemental mapping) • Computerized UTM with 3 Point Bending – (Make-Instron) • X-ray Diffractometer • 3D Scanner • STRATASYS F170 3D Printer • High Resolution - Transmission Electron Microscope (HR-TEM) • Surface Area and Porosity Analyzer • FTIR spectrometer • FT-Raman • Electrochemical Workstation • UV-Visible emission spectrometer	• Examines the morphology of the materials on Nano regime. (1-100 nm) • Computes the percentage of chemical compositions present in the nanocomposites. • Investigates the structure phase and purity of the newly developed materials investigated. • Evaluates the electrical energy storage capacity, sensing ability of the advanced and hybrid materials • Explores the mechanical, thermal and electrical properties of low dimensional solid materials.

S.No	Facility and Collaborating Departments	Name of the Major Equipment	Outcomes of the Centre
2.	Centre for RF and Microwave Communication. Electronics and Electrical Departments	• Anechoic Chamber (AC) • PCB Prototyping machine • Spectrum Analyzer • Vector Network Analyzer • Software- Computer Simulation Technology CST/ADS	• RF lab designs antennas and wireless systems for precise measurements. • Prototyping machines and chambers ensure interference-free RF testing accuracy. • Analyzers assess frequency response and impedance for RF microwave research.

S.No	Facility and Collaborating Departments	Name of the Major Equipment	Outcomes of the Centre
3.	Centre for Electric Vehicle and Advanced Mobility Automobile, Mechanical and Electrical Departments	• High Precision Power Analyser • Opal – RT Real time Simulator • Reconfigurable Power Converter Test bench • E vehicle - Four-wheeler - set up • Battery Simulator • Electric Vehicle -PMSM Motor with Advanced controller • Four & Two-wheeler Chassis Dynamometer • Impedance Tube Apparatus. • FLIR E8 Pro- Thermal Imaging Camera. • FPGA Controller Board • EMI/EMC Tester	• Developing innovative electric vehicle models and components via research and testing. • Setting industry standards for electric vehicle quality, safety, and compliance. • Building partnerships between universities and industries to encourage research and innovation. • Providing practical experience to improve understanding of vehicle dynamics and testing.

S.No	Facility and Collaborating Departments	Name of the Major Equipment	Outcomes of the Centre
4.	Centre for Advanced Artificial Intelligence and Internet of Things. Computer Science, Information Technology, Artificial Intelligence, Data Science, Machine Learning Departments	• Dual Intel® Xeon® Gold Workstation • Inference Node Servers • VPU Inference Node • Login Server • Storage Server • AR VR Module • IoT Module	• Enable the large language model training and develop advanced machine learning algorithm for data processing through dual Intel® Xeon® Gold workstations, inference node servers, and VPU inference nodes for deep learning, real-time data analytics, and computer vision research. • Implement private cloud and conduct research on cloud security and cloud storage to ensure effective management of sizable datasets, prompt access for research endeavors, and data redundancy to uphold integrity and security. • Enhance virtual prototypes, realistic simulations, and studies on human-computer interaction using AR/VR technology, advancing research across diverse fields such as education, product design, and medicine. • Inspire innovation in industries like industrial automation, smart cities, healthcare, and agriculture by developing smart devices for real-time data collection and analysis through IoT systems.

S.No	Facility and Collaborating Departments	Name of the Major Equipment	Outcomes of the Centre
5.	Centre for Structural Stability and Water Quality Analysis. Sciences, Civil and Mechanical Departments.	• Computerized 200 ton Loading Frame with hydraulic jack and 25 ton actuator. • Atomic Absorption Spectroscopy	• Examine new or innovative materials, such as high-strength concrete, composite materials, or reinforced polymers, under various loading conditions for enhancing the understanding of the mechanical properties of materials, including their compressive strength, tensile strength, and fatigue behavior. • Detect and quantify trace levels of metals such as lead (Pb), mercury (Hg), arsenic (As), and cadmium (Cd) in water and soil for environmental monitoring and assessment of pollution levels in ecosystems.

Learning Spaces at DU

Purpose

Development of state-of-the-art learning spaces that support academics, research and life on campus.

Outcomes	● Modern classrooms ● Central research facility ● Worldclass student amenities
Description	● Learning spaces will be created that are modern, modular and flexible. IT facilities with smart boards, WIFI access and digital projection will be enabled in the learning spaces. Studio concepts will be used in the establishment of laboratories. Different levels of service of the same category of infrastructure such as student residences to cater to the needs of diverse learners.
Milestones	● Phase 1: Construct TWO floors in C block for research labs ● Phase 1: Construct student residences and faculty residences ● Phase 1: Augment the facilities in the existing classrooms with air conditioning and smart boards ● Phase 2: Acquire additional land continuing with existing campus and at other locations ● Phase 2: Construct TWO blocks with 8 floors each for academics and research ● Phase 3: Construct indoor sport facility, swimming pool, air-conditioned auditorium and hotel.
Major Upcoming Steps	● Prepare administrative area of about 10000 sq.ft. for new key officials ● Commence Phase I activities ● Augment the student amenities in A block
Core Team	● Principal ● Estate Maintenance Team
Current Status	● 9 Lacs sq.ft. of built area in 44+ acres of land cater to the needs of around 4000 students.
Current Challenges	● Upgradation of the current amenities and parallel construction of new building

$(ICE)^3$ at DU

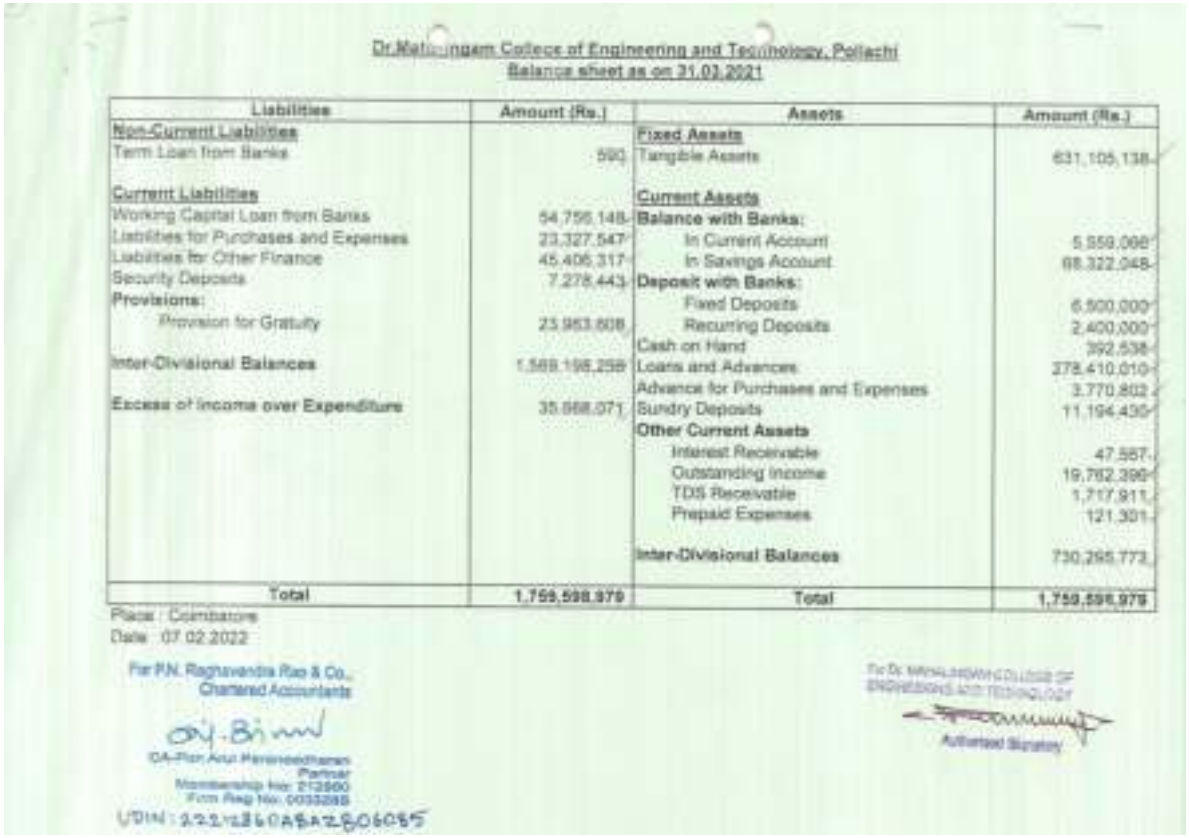
Purpose

Effectively participate in joint efforts with institutions, industry and organizations for benefit of multiple stakeholders

Outcomes	● Effective partnerships ● Internships, projects and placements ● Revenue generating assignments ● Social impacts
Description	● $(ICE)^3$: Industry – Institute – Interaction at three levels of Cooperation, Collaboration and Cocreation with measurement of Engagement, Efficiency and Effectiveness of the partnership. ● Activities in cooperation pertain to guest lectures, invited talks, representations in statutory bodies etc. that are plenty and executed as and when need arises. ● Activities in collaboration pertain to setting up of centres, faculty/student trainings/exchanges, joint projects and similar that require a formal agreement between partners. ● Activities in cocreation pertain to talent identification and development for a specific purpose with a formal agreement and huge resource allocation by partners. ● Engagement will measure the immediate reactions, efficiency the outputs and effectiveness the outcomes of the partnership activities.
Milestones	● Pilot: 100+ partners in cooperation level, 20 partners in collaboration level, 5 partners in cocreation level ● POC: Extended model from industry partners to institutional partners resulting in an MoU with a foreign university ● Deployment: Planned in DU
Major Upcoming Steps	● Establish an exclusive partnership division ● Partner with at least TEN industries for every program at cocreate level to support talent development ● Partner with certification agencies to prepare students for global destinations ● Partner with many Indian and foreign universities for resource sharing, multidisciplinary research and projects

Core Team	● Dean International Relations ● Dean Industry Relations and Talent Development ● Head Centres of Excellence ● Centre In-charges/Centre Managers ● Head Career Planning and Guidance ● Centre coordinator of Centre for Higher Education, Competitive Examinations and Foreign Languages (CHECEFL)
Current Status	● Active deployment with industries and corporates and initial stages with foreign universities.
Current Challenges	● Flexibility of the curricular structure ● Constraints on programs and their features to meet expectations of partners

Audited Financial Statements



Dr.Mahalingam College of Engineering and Technology, Pollachi
Balance sheet as on 31.03.2021

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Non-Current Liabilities		Fixed Assets	
Term Loan from Banks	980	Tangible Assets	631,105,138
Current Liabilities		Current Assets	
Working Capital Loan from Banks	54,756,148	Balance with Banks:	
Liabilities for Purchases and Expenses	23,327,547	In Current Account	5,559,066
Liabilities for Other Finance	45,406,317	In Savings Account	68,322,048
Security Deposits	7,278,443	Deposit with Banks:	
Provisions:		Fixed Deposits	6,500,000
Provision for Gratuity	23,963,608	Recurring Deposits	2,400,000
		Cash on Hand	392,538
Inter-Divisional Balances	1,569,198,259	Loans and Advances	278,410,010
		Advance for Purchases and Expenses	3,770,802
Excess of Income over Expenditure	35,668,071	Sundry Deposits	11,194,430
		Other Current Assets	
		Interest Receivable	47,567
		Outstanding Income	19,762,390
		TDS Receivable	1,717,911
		Prepaid Expenses	121,301
		Inter-Divisional Balances	730,265,773
Total	1,759,598,979	Total	1,759,598,979

Place : Coimbatore
Date : 07.02.2022

For P.N. Raghavendra Rao & Co.,
Chartered Accountants

CA.Shri Arul Perumaldharan
Partner
Membership No: 212860
Firm Reg No: 003288S

UDIN : 22212860AGA2806055

For Dr. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY

Authorised Signatory

Dr.Mahalingam College of Engineering and Technology, Pollachi
Balance sheet as on 31.03.2022

(Amount in Rs.)

As at 31.03.2021	Liabilities	As at 31.03.2022	As at 31.03.2021	Assets	As at 31.03.2022
3,56,68,071	Surplus/(Deficit) in Income and Expenditure Account	(1,24,19,209)		Fixed Assets	
			1,58,83,24,451	Gross Block	1,59,75,88,729
			(95,71,19,313)	Less : Accumulated Depreciation	(97,90,54,791)
	Non-Current Liabilities		63,11,05,138	Net Block	61,85,33,939
980	Term Loan from Bank				
				Current Assets	
	Current Liabilities			Balance with Banks:	
5,47,56,148	Working Capital Loan from Banks	4,17,38,076	55,59,066	In Current Account	17,83,694
2,33,27,547	Liabilities for Purchases and Expenses	2,67,76,165	6,83,22,048	In Savings Account	1,83,57,691
4,54,06,317	Liabilities for Other Finance	4,13,23,304		Deposit with Banks:	
72,78,443	Security Deposits	98,84,021	65,00,000	Fixed Deposits	1,37,00,000
2,39,63,608	Provision for Gratuity	1,62,77,561	24,00,000	Recurring Deposits	42,00,000
1,56,91,98,256	Inter-Division Balances	1,63,56,34,431	3,92,538	Cash on Hand	2,08,428
			27,84,10,033	Loans and Advances	39,42,29,417
			37,70,802	Advance for Purchases and Expenses	1,41,12,749
			1,11,94,430	Sundry Deposits	1,05,65,885
				Other Current Assets :	
			47,567	Interest Receivable	2,21,229
			1,97,62,390	Outstanding Income	4,20,66,971
			17,17,911	TDS Receivable	17,91,433
			1,21,301	Prepaid Expenses	28,25,224
			73,02,95,773	Inter-Division Balances	63,84,57,836
1,75,91,98,979	Total	1,76,00,16,339	1,75,91,98,979	Total	1,76,00,16,339

Place : Coimbatore
Date : 13.01.2022

For P K NAGARAJAN & CO
Chartered Accountants
Firm Reg. No. 016676S

P.K.NAGARAJAN & CO Chartered Accountants

For Dr. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY

Authorised Signatory

Dr.Mahalingam College of Engineering and Technology
A Division of Nachimuthu Industrial Association
Balance sheet as on 31.03.2023

Amount in Rupees

As at 31.03.2022	Liabilities	As at 31.03.2023	As at 31.03.2023	Assets	As at 31.03.2022
(1,18,18,838)	Excess of Income over Expenditure/ (Excess of Expenditure over Income)	16,04,516		**Fixed Assets**	
			1,39,75,88,770	Gross Block	1,66,82,30,554
			107,90,54,791	Less : Accumulated Depreciation	98,57,12,728
	Non-Current Liabilities		31,85,33,979	Net Block	68,25,07,825
	Term Loan From Bank	10,00,00,000			
				Current Assets	
	Current Liabilities			**Balance with Banks:**	
4,17,33,070	Working Capital Loan from Banks	33,37,269	17,83,894	In Current Accounts	35,35,618
2,07,76,165	Liability for Purchases and Expenses	2,03,59,632	1,83,17,691	In Savings Accounts	2,20,09,062
4,13,25,304	Liability for Other Finance	4,60,93,849		**Deposit with Banks**	
68,84,011	Security Deposits	64,26,617	1,17,00,000	Fixed Deposits	10,49,63,451
1,60,77,561	Provision for Gratuity	90,26,989	42,00,000	Recurring Deposits	
1,63,96,44,431	Inter-Division Balances	1,74,21,67,587	2,08,428	Cash on Hand	1,67,712
			59,42,29,417	Loans and Advances	62,76,24,917
			1,42,11,749	Advance for Purchases and Expenses	3,83,08,943
			1,05,45,885	Sundry Deposits	1,18,74,349
				Other Current Assets	
			1,23,239	Interest Receivable	3,85,992
			8,09,60,373	Fees Receivable	1,15,42,085
			17,91,433	TDS Receivable	24,06,480
			38,21,224	Prepaid Expenses	21,17,959
			63,84,57,636	Inter-Division Balances	62,78,26,457
1,70,60,16,999	**Total**	**1,91,76,16,354**	**1,70,60,16,999**	**Total**	**1,92,75,16,854**

Place: Coimbatore
Date: 05.12.2023

For P K NAGARAJAN & CO
Chartered Accountants
Firm Reg No: 0166765
C.A. S.P. Muthusami
Partner, M.No: 224171

For Dr. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY
Authorised Signatory

UDIN 23224171BGUQR68227

Dr. Mahalingam College of Engineering and Technology

Makkinaickenpatti (Post), Udumalai Road,

Pollachi - 642003, Coimbatore, Tamilnadu, India

Ph: +91 - 4259 - 236030 / 40 / 50

website: www.drmcet.ac.in