





An Autonomous Institution Since 2011 (A DIVISION OF NIA EDUCATIONAL INSTITUTIONS)

Office of Dean - Research & Innovation



RI HANDBOOK 2023-2024



An Autonomous Institution Since 2011 (A DIVISION OF NIA EDUCATIONAL INSTITUTIONS)

Udumalai Road, Pollachi, Coimbatore District 642003

VISION AND MISSION OF THE INSTITUTE

Vision

We develop a globally competitive workforce and entrepreneurs

Mission

Dr.Mahalingam College of Engineering and Technology, Pollachi endeavors 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

VISION AND MISSION OF THE OFFICE OF **DEAN RESEARCH & INNOVATION**

Vision

To become a globally recognized hub of pioneering research and innovation, driving transformative advancements in engineering and technology for the betterment of society.

Mission

- Foster research excellence and innovation, by identifying potential IPR, offering financial support for filing, facilitating revenue sharing from consultancy collaborations, and rewarding faculty through fair incentives.
- Strengthen research interest groups, empower the student research council, and publish the R&I newsletter to promote and celebrate achievements in the domain of research and innovation.
- Disseminate knowledge through the publication of research, knowledge-sharing sessions, seminars, faculty development programs, workshops, inter and intracollege technical symposiums, conferences, and open-house exhibitions.
- Offer state-of-the-art research facilities and resources to facilitate interdisciplinary research projects, secure research funding, conduct research with industry partners, and carry out PhD works.
- Review Ph.D. scholars' progress, department R&I activities, ongoing externally funded projects, in-house R&D projects, and institute innovation council.

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MANAGEMENT

FOUNDER

Arutchelvar Dr. N. Mahalingam, B.Sc., F.I.E., (March 21, 1923 – October 2, 2014)



Smart work is better than hardwork is the best maxim that suits the life of Thiru. P. Nachimuthu Gounder who opted for the best solution for people's problem then- transportation. Thiru. P. Nachimuthu Gounder implemented an ultimate idea to use bullock carts to help people. The limitations of bullock cart transportation prompted him to modernize and Anamalais Transport came into existence which is now known as ABT limited exploring every corner of the state. The

modernization of the transport fueled a thought on the importance of technical education. A vision was born. The dream was made into reality by Arutchelvar Dr. N. Mahalingam – Founder, a name that is synonymous with Pollachi.

Motivated by his father's vision Nachimuthu Industrial Association Trust was established in the year 1956. The dream was cherished with the incorporation of Nachimuthu Polytechnic College in 1957 through which 120 rural students were made competent enough to work with modern technology.

The society's solicitation made him the Chairman of NIA to expand education right from schooling to engineering. Within a short span of 50 years the NIA has ventured into many avenues and has established its roots in industrialization, education, finance, transportation, synthetic gems, textiles, agriculture and automobiles. Nachimuthu Industrial Association not only offers jobs but also provides opportunities for rural students to gain knowledge and explore the fast-paced world. For his achievement in education and welfare of the society, the industrial genius has been recognized by Government of India and was conferred with Padma Bhusan in 2007.

CHAIRMAN

DR. M. MANICKAM, M.SC, MBA.,



The Chairman Dr.M.Manickam is the successor of Arutchelvar. Dr.N.Mahalingam. Graduated from the University of Michigan with an international exposure, he has the caliber to lead industries and institutions together. He was the President of All India Sugar Manufacturers ssociation (1996-1997) and India Sugar Technologists Association (2000-2002). The Chairman ensures that excellent technocrats are nurtured by the best institution. By

introducing his brain child, earn while you learn caters to the students who are in need, he steps ahead of his predecessors by establishing tie-ups with reputed international institutions.

The Chairman is honored with Doctor of Science (Honoris Causa) by the Tamil Nadu Agricultural University in recognition of his contributions towards Management of Agro Processing Industries and Agricultural Development.

CORRESPONDENT

SHRI. M. HARI HARA SUDHAN, B.E., MS.



Shri. Hari Hara Sudhan completed his B.E (Mechanical) at PSG College of Technology, Coimbatore and then he did MSc (Automobile Engineering) in University of Bath, UK.

He undergone 2 years of Training in Ford, UK before taking charge as Executive Director of ABT Limited, Coimbatore. ABT Limited was incorporated in the year 1931 to deal in transport and automobile

industries. As on Accolade for his flair, ABT Limited has received National Award for Supply Chain and Logistics Excellence – CII Scale Awards 2018.

He is appointed as Correspondent of Dr. Mahalingam College of Engineering and Technology since November 2012. Dr. Mahalingam College of Engineering and Technology was established in the year 1998 to offer 10 UG Engineering courses, 5 PG Engineering Courses, MCA Program currently & 5 Research Programme

ADMINISTRATIVE TEAM

SECRETARY

DR. C. RAMASWAMY, M.E., Ph.D., F.I.V.



Dr. C. Ramaswamy is the Secretary of the NIA Educational Institutions. He has been associated himself with NIA for more than four decades in providing high quality education to thousands of students.

He was the Principal of Nachimuthu Polytechnic College, from 1994 to 2000. He was instrumental in the development of the College in all aspects and he was also the Founder Principal of Dr. Mahalingam

College of Engineering and Technology. He has been the Secretary of NIA Institutions since 2000.

With a strong determination and active involvement, Dr. C. Ramaswamy helps the NIA institutions achieve academic excellence. He has created an indelible page in the golden history of NIA institutions, in creating infrastructure, promoting partnerships with institutions and corporate in India and abroad as well.

An experienced educationist and administrator, Dr. C. Ramaswamy has played a dominant role in the growth and development of the NIA institutions. He obtained his doctorate from Madras University for his for his research on Industry Institute Collaborative Model in the year 2017.

CHIEF HUMAN RESOURCES OFFICER

Dr. S.V. SUBRAMANIAN, M.B.A (HR)., Ph.D



Dr. S. V. Subramanian, Chief Human Resourses Officer, NIA Educational Institutions & ABT Limited is defined as having a leadership style that's positioned around authenticity and pragmatism.

He has Bachelor's degree in Commerce and Post-graduation in HR from Bharathiyar University and piled his qualification through completion of Diploma in Labour Laws & Post Graduate Diploma in Personnel

Management and Industrial Relations. He obtained his Doctoral degree in the discipline of Management from Bharathidasan University, Trichy with highly commended research in the area of Competency Mapping.

He is holding 25+ years' experience in HR and Admin with strong expertise at jandling green field project HR activities. His efficacy includes ER & HR aligned issues in industries like Manufacturing, Retail and Corporate HR. His erstwhile employers are LMW, TVS and Suzlon. He has an umbrella of experience in Automobile, Textiles, Infrastructure and Retail Industries across Tamil Nadu. In this role, he is responsible for envisioning the roadmap in the formulation and development of Strategic Business Plans, Change Management & handling various IR & HR processes. He is passionate about researching and exploring novel ideas in HR and organization development.

Prior to his current position, worked as an Asst. Vice President-HR & Admin for the group having diversified business verticals including Jewellery manufacturing and retailing.

He is currently serving as a Chairman in Institute Management Committee of Government Industrial Training Institute(Women), Coimbatore and Academic Advisory Board Member at Rathinam Arts and Science College, Coimbatore.

He also served in forums like Confederation of Indian Industry (CII)-Southern Region, CII-Coimbatore Zone and District Level Skill committee at various capacities.

PRINCIPAL

Dr. P. GOVINDASAMY, M.E.



Dr.P.Govindasamy, Principal, MCET holds more than 30 years of experience in Teaching, Research and Administration. He occupied a variety of positions in his career as Principal, Vice Principal, Dean-R&D Director-IQAC, Dean Student affairs, Head of the Department, BoS Chairman, Member in Statutory bodies and other academic positions. He is aiming to leverage 29 years of academic

experience to drive students' growth and implementation of innovative teaching methods to intensify students' engagement.

He received his Doctoral Degree in 2009 under the faculty of Mechanical Engineering from Coimbatore Institute of Technology, Coimbatore and Master's Degree in Thermal Sciences -IC Engg in 1992 from College of Engineering Guindy, Chennai. He completed his Bachelor's Degree in Mechanical Engineering in 1989 from Kongu Engineering College, Erode. During his academic tenure, he has published more than 56 research papers in several national and international journals and more than 32 research proceedings in various national and international conferences. In addition, he has received research and seminar grants from various organizations such as AICTE-ISTE STTP, CSIR, and AICTE. He is serving as the Editor for Journal of Petroleum and Alternative Fuels (JPTAF). He has also guided and supervised 100 UG projects. He has membership in professional bodies such as ISTE, Institution of Automobile Engineers (India), Combustion Institute, SAE, Institution of Valuers, ASME, SESI – ISA, ISTE, and IEEE. His research interests include button gear shifter for Two wheeler, Petrol & LPG as an alternative fuel for CI engine. Performance and emission analysis of catalytic coated cylinder head in CI Engine. He has carried out numerous consultancy activities meeting the societal needs and enhancing the eco-friendly environment. In addition, he has raised fund through research proposals via AICTE -RPS, TNSCST and AICTE Modrobs. He holds a wide experience in AICTE/University/Government approval and NAAC activities. He has visited numerous countries like Malaysia, Bangladesh, Japan, Thailand, Taiwan and Hong Kong for his study and related academic endeavours.

DEAN ACADEMIC & AUTONOMOUS

Dr. A. SENTHIL KUMAR, M.E., Ph.D



Dr.A.Senthil Kumar Dean (Academic and Autonomous) have 28 years in teaching and working at Dr Mahalingam College of Engineering and Technology for the past 11 years. His under graduation was at PSG College of Technology in the discipline of Electrical and Electronics Engineering and his Post Graduation in VLSI Systems at National Institute of Technology, Trichy with an Academic Excellence Award for the outstanding performance by Bharathidasan University. VLSI

Signal Processing is the key area of research for his doctoral study in Anna University, Chennai. He has received the best teacher award twice. His pivotal areas of interest include Embedded System, VLSI Signal Processing and Industrial Automation.

Under his guidance, 11 PhD Scholars have obtained their doctoral degree. He presented more than 50 papers in national and international conferences and published 25 Papers in International Journals in his expertise areas, Low power VLSI design, Embedded system. Received the best paper award from International Transaction on Computer Science and principal person in executing voluminous consultancy work in the area of Embedded System, Energy Auditing and Industrial automation. He received a grant of Rs 44,25,000 received for versatile research projects from UGC, AICTE, DST etc. He has funding grant of Rs 17,06,000 organise various seminars/FDP/Work Shops / Conferences. He has travelled to Canada, Thailand and Singapore for his research and education associated activities.

DEAN RESEARCH & INNOVATION

DR. S. RAMAKRISHNAN, M.E., Ph.D



Dr.S.Ramakrishnan has 23 years of teaching experience and he is Dean of Research & Innovation, MCET. He has successfully guided 9 Ph.D candidates & guiding 5 Ph.D scholars. He is a Reviewer of 43 international journals including 14 IEEE Transactions, 8 Elsevier Science, 5 IET Journals, Springer Journals, Wiley Journals, ACM Computing Reviews, etc., He is in the editorial board of 6 International Journals. He is a Guest-Editor of special issues in 4

International Journals including Telecommunication Systems Journal of Springer. He has filed 3 Indian patents. He has published 215 papers in conference and journals like IEEE Transactions on Image Processing, IEEE Transactions on Industrial Electronics, IET Image Processing, IET Healthcare, Elsevier, Springer, IETE Journal of Research, Taylor & Francis etc.,

He reviewed 24 books for ACM Computing Reviews and 3 books for McGraw Hill International Edition. He has authored 13 books on topics like Image Processing, Speech Processing, Pattern Recognition, Wireless Sensor Networks, Cryptography published by CRC Press of Taylor and Francis Group, USA, Nova Science, Lambert Academic Publishing, Germany and InTech Publisher, Croatia.

Dr.Ramakrishnan has efficaciously completed External Funded project Sponsored by Council of Scientific & Industrial Research (CSIR), All India Council for Technical Education (AICTE) and Defence Research and Development Organization (DRDO). In addition to this, he is recognized as top scientist in AD Scientific Index (Rankings for Scientist) by securing top 6% in India, 11 % in Asia and 16 % in world. His areas of research include digital image processing, information security, and soft computing.

DEAN- INDUSTRY RELATIONS & TALENT DEVELOPMENT

Dr. CALVIN SOPHISTUS KING, M.Tech., Ph.D



Calvin Sophistus King has two decades of academic and administrative experience spread across affiliated college, autonomous college, private university, deemed university and foreign university systems. He has a Ph.D. in Energy Engineering from Birla Institute of Science and Technology, BITS – Pilani, an M.Tech. in Energy Engineering from Regional Engineering College,

Trichy and B.E. Mechanical Engineering from PSNA College of Engineering and Technology, Dindigul.

He is passionate about learning and development which reflects in the programs that he has designed for academia and industry. He is an accomplished learning and development professional with rich exposure in outcome-based education model. He has been instrumental in several learning and development initiatives for students, faculty members and industry professionals.

He is an active member of various professional bodies, including American Society of Engineering Education, Society of Automotive Engineers, Association of Neurolinguistic Programmers, Kirkpatrick Partners, Project Management Institute etc. to name a few. His expertise includes learning experience design, behavioural change management, project management apart from renewable energy and electric vehicles. He is a Kirkpatrick Certified Training Evaluator, Neuro Linguistic Programmer, Cambridge University certified Trainer and Dale Carnegie certified Instructor. He has certifications from top universities of the world in various domains such as education, leadership, online learning, electric vehicles, project management etc. He is a travel freak and fond of vehicles. Has visited Thailand, Singapore, Malaysia, Qatar, Israel, Spain, Canada and lived in United Arab Emirates. He believes in collaboration and co-creation for talent development based on inherent needs of society.

MCET

Office of Dean - Research & Innovation R&I Coordinators & Responsibilities

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Dean R&I



Dr. S. Ramakrishnan Dean R&I

• The Dean of R&I plays a very important role as a strategic leader for the institution's Research, Development and Innovation activities at MCET.

- To prepare an annual budget with an activity planner pertaining to research and innovation
- To formulate policies for the conduct of research and steps to maintain suitable standards.
- To create and maintain a database regarding faculty expertise in research and innovation areas.
- To encourage, mentor, and guide faculties in their research activities and publications.
- To plan the infrastructure and equipment required to conduct research or consultancy work.
- To provide leadership and guidance in identifying external funding for research projects and submitting proposals to secure funds for research.
- To provide leadership and support to the Institution Innovation Council
- To develop innovative designs primarily on market demand with low-cost solutions and to nurture and advance the culture of design and innovation to attract and benefit end users.
- To ensure on-time registration of patents and IPRs for the research and innovations of MCET.
- To create and maintain relevant records of research and innovations done.

Institute Level RI Coordinators

Intellectual Property Rights (IPR) Coordinator



Dr. M. Jayaraj, AP(SS)/Mech

Responsibilities:

- Facilitating faculty members and departments in obtaining patents, copyrights, designs, trademarks, and layout designs of integrated circuits.
- Coordinating with faculty members to identify potential inventions with the help of external experts.
- Supporting faculty members in IPR drafting with the help of in-house expertise and external patent agents
- Facilitating the conversion of quality student projects into patents.
- Identifying patents that have potential for technology commercialization.
- Ensuring the timely submission of the first examination report.
- Organizing training programs and workshops for faculty members related to patent drafting, filing, the first examination report, and other IPR activities.
- Following up on department targets and identifying gaps.
- Regularly updating and maintaining databases for IPR details and updating them on the R&I webpage.
- Monitoring the budget and maintaining expenses related to IPR.
- Verifying incentive claims and ensuring that the required processes are appropriately followed.
- Providing data as required by ranking institutions and statutory bodies, such as NIRF, NAAC, UGC, AICTE, etc., in the appropriate format.

Research Publications Coordinator



Dr. K. Rameshkumar, AP/EEE



Dr. A. Shanmugapriya, AP/S&H-Chemistry

- Identifying calls for book chapters, conference papers, papers in special issues of journals, and in indexed publications, periodically and preparing the data to circulate to the departments.
- Identifying delisted journals (fake journal identification) and circulating the information.
- Facilitating the faculty members to find the similarity of articles by using plagiarism checker tools.
- Ensuring the inclusion of other MCET author-published articles in the references for the new submissions.
- Monitoring and ensuring the latest updates to the publication details on the institution's, departments', and faculty members' IRINS, Scopus, Google Scholar, ResearchGate, and other scholarly index pages.
- Organizing training programs and workshops for faculty members related to publications.
- Regularly maintaining databases of paper publication details and updating them on the R&I webpage.

- Verifying incentive claims and ensuring that the required processes are appropriately followed.
- Following up on department targets and identifying gaps.
- Providing data as required by ranking institutions and statutory bodies, such as NIRF, NAAC, UGC, AICTE, etc., in the appropriate format.

Consultancy Works Coordinator:



Mr. S. Syed Masoodhu, AP/Civil Engineering

- Facilitating the departments in identification of consultancy work's requirements from industries.
- Benchmarking the consultancy work from MCET at the level of top NIRF-ranked institutions.
- Facilitating infrastructure requirements to carry out quality consultancy work.
- Coordinating onsite visits to industries related to consultancies.
- Collecting the final closure report, invoices, purchase orders, and other documents related to consultancy work.
- Regularly maintaining databases for consultancy details and updating them on the R&I webpage.
- Verifying incentive claims and ensuring that the required processes are appropriately followed.
- Monitoring the progress of ongoing consultancy work.
- Following up on department targets and identifying gaps.
- Providing data as required by ranking institutions and statutory bodies, such as NIRF, NAAC, UGC, AICTE, etc., in the appropriate format.

External Funded and In-house R&D Projects Coordinator



Mr. V. Gurunathan, AP/ECE

- Identifying funding opportunities from external sources, such as government and nongovernmental agencies, periodically preparing the data, and facilitating the circulation of the same to departments.
- Benchmarking the research grant submissions from MCET at the level of the top NIRFranked institutions.
- Coordinating the review of funded project proposals with the help of external experts to ensure potential submissions.
- Monitoring the status of submitted proposals for external funding.
- Following up on rejected proposals from departments for quality resubmission.
- Periodic monitoring of the progress of the ongoing external funding.
- Facilitating onsite visits as and when needed for the submitted proposals.
- Monitoring the timely submission of the Utilization Certificate (UC) and final technical report.
- Facilitating the management contribution of expenses over and above the research grant received from external funding agencies.
- Organizing training programs and workshops for faculty members related to funding schemes and grant writing.
- Verifying incentive claims and ensuring that the required processes are appropriately followed.
- Following up on department targets and identifying gaps.

- Coordinating the required process for the release of seed money to in-house R&D for both faculty members and students.
- Periodic monitoring of the progress of the ongoing in-house projects.
- Organizing open house project exhibitions once per semester for internal students and once per year for students from schools and other institutions.
- Regularly maintaining databases related to in-house projects & external funding and updating them on the R&I webpage.
- Providing data as required by ranking institutions and statutory bodies, such as NIRF, NAAC, UGC, AICTE, etc., in the appropriate format.

NPTEL – SWAYAM Coordinator:



Dr. D. Balamurugan, Librarian

Responsibilities:

- Identifying research-related and emerging technology courses from the NPTEL and Coursera platforms and facilitating the faculty members' participation in these courses, periodically.
- Following up on all NPTEL and Coursera-related activities such as registration, ensuring the inclusion of the college name during the registration process, on-time assignment completion, etc.
- Facilitating the spoken tutorial certification process for students with the help of department coordinators.
- Providing the required support for students, like arranging transport facilities during exams.
- Regularly updating and maintaining databases for online certification details of faculty members and students.

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MCET

- Verifying incentive claims and ensuring that the required processes are appropriately followed.
- Following up on department targets and identifying gaps.
- Providing data as required by ranking institutions and statutory bodies, such as NIRF, NAAC, UGC, AICTE, etc., in the appropriate format.

Ph.D. Course-work and R&I Budget Coordinator:



Ms. A. G. Priya Varshini, AP(SS)/IT



Ms. N. Sumathi AP(SS)/CSE

- Facilitating part-time and full-time Ph.D. admission processes at Anna University, Bharathiar University, and centrally funded institutions.
- Monitoring the Ph.D. admission status in approved Ph.D. research centres.
- Collecting coursework registration forms from Ph.D. scholars and submitting them to the exam cell.
- Consolidating CCET marks and internal marks and submitting them to the exam cell.
- Regularly maintaining databases for Ph.D. coursework and Ph.D. supervisor details and updating them on the R&I webpage.

- Consolidating the R&I yearly budget proposal from departments.
- Periodically following RI budget utilization of departments.
- Providing data as required by ranking institutions and statutory bodies, such as NIRF, NAAC, UGC, AICTE, etc., in the appropriate format.

Institution's Innovation Council(IIC) Coordinators:



Dr. P. Vivekanandan, Prof/Al&ML



Dr. M. Pandi ASP/CSE



Dr. R. S. Venkatesan, AP(SG)/ECE



Dr. D. Nathan

Responsibilities:

- Overall management, planning, controlling, and direction of IIC.
- Assisting the President in managing, monitoring, controlling, and collecting data to upload into the portal of IIC activities.
- Convening quarterly planning and review meetings, monitoring the status of activities, and uploading activities.
- Convening meetings and controlling and monitoring NIRF data collection activities.
- Conveying the information and monitoring various contests and events participated by students and faculties.Coordinating the activities related to internships done by students through department IAPC coordinators.

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- Coordinating the various IPR-related activities and the promotion of IPRs among faculties and students.
- Coordinating and collecting the data required to submit the ARIIA.
- Coordinating and promoting start-up activities.
- Coordinating and supporting the promotion of various IIC, self-driven, MIC driven and other activities.

Students Research Council and Open House Coordinators:

Circuit Stream:



Dr. L. Chithra, ASP & Head/S&H



Dr. C. Moorthy, AP/ECE



Dr. P. Vivekanandan, Prof/AI&ML



Dr. M. Pandi, ASP/CSE

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Dr. J. Thimmia Raja, AP(SS)/IT

Core Stream:



Dr. S. Ashok AP(SG)/Auto



Dr. N. Natarajan,

ASP/Civil

<u>S&H</u>



Mr. S. V. Gurupranes, AP/Mechanical



Dr. M. Mariyappan, AP/Physics

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Preamble

In recent years, the need of research and innovation is growing in rapid phase due to the advancement in various industries. Research is also a critical phenomenon which include studying, experimenting and innovate newer things to make human life style in comfort. In this context, introducing research focus to budding engineers becomes essential. Establishment of a student research forum is expected to facilitate multidisciplinary collaboration and provides a best platform for students to present their research findings and innovative ideas in diversified fields in engineering and technology.

Student Research Council

The Student Research Council (SRC) is a student organization, partially run by students with the support of the SRC Coordinator and faculty advisor. The SRC encourages the students to organize Conference, workshop, Exhibition, Innovative projects Expo, Hackathon and Industry Experts talk also encourages the students to participate in external events like paper presentation, Innovative projects expo, Hackathon and consultancy.

The SRC helps in research enrichment for the students by engaging students in a vibrant research environment, where they will be surrounded by and can exchange research ideas with peers and near-peer mentors. It is a place where students will have the opportunity to broaden their knowledge of research and to interact with other students who have a shared interest in research.

The SRC provides a public stage for the presentation, assessment and discussion of their scientific investigations as well an opportunity to recognize and award exceptional research efforts. The council will provide exposure to talks from world-class researchers and promote interdisciplinary collaboration between industries and students to foster high-quality, innovative research that will transform our present scientific understanding and ultimately improve their knowledge.

Roles and Responsibilities

1. Organizing an Open House Exhibition for peers and school students

- a. Planning an open-house exhibition for peers and school students.
- b. Requesting the management's assistance for financial funding to construct a prototype or working model of the potential projects based on the recommendation of the HoD or the Faculty Advisor.
- c. Identifying the best projects done by the students for the exhibition.
- d. Preparing the posters, circulars, and flyers for promoting the Open House Exhibition.
- e. Compiling final closure reports and documenting the process.
- f. Making an effort to publish the best projects in the press.

2. Facilitating students' In-House R&D projects with seed money

- a. Collecting potential proposals from the students of MCET periodically.
- b. Reviewing the proposals with the help of nominated senior faculty members, alumni, or industry experts.
- c. Recommending the management regarding a potential proposal requiring financial support.
- d. Monitoring the progress of sanctioned projects with the help of designated faculty guides and the HoD.
- e. Arranging a final demonstration for the project's closure report.
- f. Attempting to publish the best projects in the press.

3. Conducting Workshops, Symposiums, Hackathons, or Competitions for students

- a. Preparing and planning the proposals along with the budget required for hosting (inter- or intra-) Symposiums, Hackathons, or Competitive events.
- b. Preparing the brochures and pamphlets for the events.
- c. Scheduling the hosts, faculty coordinators, or judges.
- d. Designing monetary awards and certificates for the recipients.
- e. Collecting copies of the certificates, and the proceedings for the documentation.
- f. Endeavouring to publish the best projects in the press.

4. Facilitation filling of Patent / Design / Copyright / Trademarks for students

- a. Conducting awareness programmes on "IPR and its significance" for the students of MCET.
- b. Organizing ideathon camps to attract inventions.
- c. Arranging expert review to identify potential inventions for patents, designs, copyrights, and trademarks.
- d. Seeking financial support from the management for filing the IPR with the help of the Faculty Advisor, HoDs, and IPR.
- e. Documenting and promoting the granted patents commercially.

5. Facilitating students' projects in Indexed conferences and journals

- a. Circulating various calls for indexed conferences and selecting journals through Faculty Advisors or HoDs.
- b. Arranging training sessions for the students on "Art of Writing Research Papers for
- c. Indexed Conferences and Journals" with the help of senior faculty members.
- d. Reviewing the article's similarity report in the Turnitin software before submission.
- e. Monitoring and consolidating the students' submissions to journals or conferences.
- f. Collecting and documenting the copies of the certificates and the proceedings.

6. Facilitating participation in industry-driven competitive events or hackathons

- a. Identifying various competitive events in reputed industry and government bodies such as AICTE, Smart India Hackathon, etc.
- b. Identifying various industry-powered competitive events and distributing brochures among the students.
- c. Recognizing the potential students with the help of the faculty advisors and the HoDs for participation in industry-based competitive events.
- d. Monitoring the preparation level of identified batches with the assistance of faculty advisors, alumni, or industry experts.
- e. Encouraging and motivating the awardees.
- f. Publishing the details of the prize winners in the press.

7. Facilitating participation in Academic driven competitive events / Hackathons

- a. Identifying academic competitive events and distributing brochures among students.
- b. Motivating students to participate in the events conducted by centrally funded institutes such as IITs, NITs, and IIITs.
- c. Recognizing the potential students with the help of the faculty advisors and the HoDs for participation in the competitive events.
- d. Monitoring the preparation level of identified batches with the assistance of faculty advisors, alumni, or industry experts.
- e. Encouraging and motivating the awardees.
- f. Publishing the details of the prize winners in the press.

8. Facilitating students' participation in workshops and seminars at reputed institutions

- a. Identifying technical events at reputed institutions such as IITs, NITs, and IIITs.
- b. Recognizing students and their accompanying faculty members with the assistance of the HoD for their participation.
- c. Providing on-duty support for the participants.
- d. Collecting and documenting the copies of the certificates.

9. Enabling students to complete online certificate course from NPTEL and Course Era

- a. List of courses collect from HoDs, through NPTEL coordinator to register.
- b. The students also encourage completing the other online courses such as Udemy and Course era.

Students, who successfully complete online courses such as NPTEL, will be exempted from appearing for elective courses with the recommendation of the HoDs.

Student Committees:

SI.No	Name	Department	Year	Position
1	S.B. Pranavkumar	Mechatronics	IV	President
2	A. Parveena	Civil	IV	Vice President
3	S.R. Manicka Prabu	Mechanical	Ш	Secretary
4	V. Subashini	ECE	Ш	Joint Secretary
5	G.Srihari	CSE	Ш	Joint Secretary
6	R. Pranesh	IT	Ш	Treasurer
7	R. Subhashini	Auto	Ш	Executive Member
8	P. Prajith	CSE	Ш	Executive Member
9	Mohamed Faizil	Mechanical	Ш	Executive Member
10	V. Uthayakumar	ІТ	Ш	Executive Member
11	K. Magudeshwaran	AIDS	I	Executive Member
12	M. Momalnafeesha	Civil	I	Executive Member



R&I Information Coordination Team:



Dr. J. Thimmia Raja, AP(SS)/IT



Dr. B.Bala Vijaya Priya,

AP/S&H



Ms. G. Keerthika, AP/IT

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Responsibilities:

- Collecting and formatting data for the R&I Newsletter and ensuring the release of four issues per year.
- Collecting and maintaining monthly RI dashboard data.
- Preparing minutes of meetings conducted in relation to research activities.
- Coordinating attendance, e-certificate distribution, report preparation, and other activities related to knowledge sharing sessions.
- Regularly maintaining databases for R&I activities and updating them on the R&I webpage.
- Providing data as required by ranking institutions and statutory bodies, such as NIRF, NAAC, UGC, AICTE, etc., in the appropriate format.

Clubs Coordinator:



Dr. V. Umadevi, AP(SS)/S&H-Physics

- Collecting the monthly list of activities of various clubs.
- Preparing weekly reports of students' contributions and attendance details for the club activity hours.
- Regularly updating and maintaining databases for various club activities.
- Budget monitoring and maintenance of club activities.
- Providing data as required by ranking institutions and statutory bodies, such as NIRF, NAAC, UGC, AICTE, etc., in the appropriate format.

Research Promotion Policy and Ethics

Preamble

MCET aims to promote research excellence and serving the society by offering dynamic higher education ecosystem with a focus on research, innovation, and technology development which can address the societal concerns facing our nation. MCET establishes an open forum to promote academic achievement and engage in intellectual research for both faculty members and students. R & I activities take place in order to enhance knowledge that paves the way for new research & advancement, and to have industrial collaboration.

The Research and Development cell is coordinating research and innovation activities of the institution, guided by the Research Advisory Committee which is directed by the Dean of Research &Innovation and headed by the Principal. The RDC is responsible to formulate various processes, procedures, and methodologies for research and innovation activities along with R & I coordinators from various departments.

Research Promotion Policy

Academic Research:

- All the faculty members are encouraged to conduct research in emerging areas as well as interdisciplinary areas.s
- Faculty research articles that are indexed by Q1/ Web of Science (SCIE) /Scopus are awarded with monetary incentives.
- Faculty members attending reputable conferences and workshops will receive financial support.
- > Ph.D. scholars will be provided with on duty leave.
- Faculty with Ph.D. should publish three articles in Q1/SCIE publications per year, faculty working towards Ph.D. should publish three articles in Q1/SCIE/Scopus publications per year, and faculty with master's degrees should publish three article in SCIE/Scopusindexed Journal/ Scopus-indexed conference per year.
- The UG and PG projects are primarily focused on research and that should be published either in the SCIE/Scopus/UGC care journals or Scopus-indexed conferences.

- Ph.D. holders working in MCET should have supervisor recognition from the university. Faculty members holding Ph.D. can submit a request letter for supervisor recognition to the Principal through HoD concern and Dean R&I.
- > A Ph.D. supervisor working in MCET before inducting Full/Part-time Ph.D. candidates must get the approval from Principal through HoD concern and Dean R&I.
- Faculty members working in MCET, after 1 year of service in MCET should register for Ph.D.
- External candidates applying for Ph.D. in MCET should have a minimum of one year of teaching experience.
- Faculty members working in MCET are encouraged to do full-time Ph.D. in centrally funded institutions (like IITs, NITs) and top NIRF-ranked institutions. For those candidates, partial financial assistance and leave will be provided.
- The faculty members after one year of minimum service in MCET can be recommended by the HoDs concerned to do a Ph.D. without affecting the regular Teaching-Learning process. In addition to that HoDs concern should make sure the required support to take up course works and conduct research is provided to the candidates.
- External and internal candidates satisfying the above-mentioned criteria should submit the filled-in request form available in the Dean R&I to the principal of MCET. The candidates should make a request to the Principal through HoD concern, Ph.D. supervisor, and Dean R&I for getting a No objection certificate.
- Faculty members newly joined in MCET, with already ongoing Ph.D. registration should submit a request for a No objection certificate along with evidence of Ph.D. registration and DC meeting minutes to the Principal through HoD and Dean R&I.
- In case there is a cancellation/re-registration, proper approval shall be obtained from the Principal through HoD concern and Dean R&I.
- Ph.D. scholars should submit a progress report every semester in the prescribed format to the Dean R&I, duly forwarded by Ph.D. supervisor and HoDs concern.
- After the successful completion of Ph.D. viva-voce, the scholars should submit the Ph.D. thesis to the central library through the Dean R&I office.

External Funded Projects/In-house R&D:

The institution provides SEED money for in-house R&D projects to all potential faculty members and students. The minimum SEED money provided will be 1 lakh rupees per project.

- In-house Funding Scheme is provided in order to promote research and innovation among the faculty members and students in the campus. The objective of the scheme is to accelerate the prospect to receive financial support from Government/Non-Governmental Agencies in the future.
- Under this scheme students and faculty members shall apply for the funding with an idea and neat description of their work. After scrutinizing the proposal, financial support will be provided.
- A copy of proposals complete in all aspects is to be submitted through the proper channel to the office of Dean of Research & Innovation.
- Preference will be given to proposals that have a high potential for external funding and to strengthen inter-disciplinary research partnerships.

Consultancy:

- Faculty members of MCET can approach industries to carry out consultancy and testing services to industry and external agencies.
- Institute will provide necessary support such as required space, facilities, and reduced workload to the faculty members.
- > Revenue generated from consultancy will be shared as per the below table.

Intellectual Property Rights (IPR):

RDC IPR wing facilitates faculty members in drafting and filing of patents. The major functions of IPR cell are given below but not limited to:

- RDC has an IPR wing to create awareness about technology commercialization and Patenting among students and faculty members and also provide support for IPR filing in Indian Patent Office.
- MCET- IPR wing of RDC has signed a Memorandum of Agreement (MoA) with National Research Development Corporation (NRDC).

- Potential inventions from faculty members and UG and PG projects having novelty, inventive steps and industrial applicability can be patented by submitting the details to Indian Patent Office.
- > The following services are provided by the RDC-IPR wing to faculty and students:
 - \circ $\,$ Knowledge support for the conversion of innovative ideas and projects into patents.
 - Funding support for patent search, drafting and patent filing will be provided by institution.
 - Guidance and funding support for technology transfer and commercialization of innovative technologies.
 - Support for patent renewal, response for examination report, and legal dispute if any.
- > The Objectives of the IPR wing of RDC are as follows:
 - o Organizing workshop/guest lecture on technology commercialization and patenting.
 - $\circ~$ To set targets to stream-wise and conduct periodical review meetings.
 - Helping the identified projects to get technology Commercialization and Patenting
 - Motivating faculty members to file copyright for their teaching materials, lab manuals, etc.
- > The Monitoring policy of the IPR wing of RDC is as follows:
 - Impact assessment of the Institute's IPR initiatives should be performed regularly using well-defined evaluation parameters such as the number of workshops, conferences conducted, and IPR policy / review committee meetings both at department and institute levels.
 - The number of patents filed, published, and granted, the support system provided at the institutional level and satisfaction of inventors, and new commercialization created by the institute should be recorded.
 - Faculty members are appreciated with monetary incentives when patents are granted.

Ethics and Plagiarism:

Ethics and Plagiarism Committee supports faculty members by providing tools to check for similarity. The major functions of ethics and plagiarism committee are given below but not limited to:

- > Approval of research projects that involve human participants or personal information.
- > Provide suggestions and advice on any research-related ethical concerns.
- Ensure that the institution complies with all statutory and regulatory requirements regarding its adherence to ethical, legal, and professional commitments and standards.
- > To provide guidance to the Principal on concerns pertaining to integrity in research and ethical issues.
- Regular RDC initiatives will make sure that researchers are aware of the value of integrity and ethics and that they adhere to ethical standards for research and publication methods at the institutional, national, and international levels.
- All researchers should have access to the necessary tools in order to do a standard plagiarism check, which should be made mandatory.
- Faculty members shall utilize research software tools such as Turnitin and Urkund for similarity checking of research articles/student project reports.
- Furthermore, the RDC will educate the research community about questionable research and publishing procedures, as well as predatory journals.
- Research articles and grant proposals shall have a 10% similarity or publisher/Grant agency similarity limit (whichever is minimum).
- > In UG and PG project reports, the minimum allowable similarity is 15% and 20% respectively.
- In case of any faculty member/scholars/students who have committed the act of plagiarism in their thesis/project report/journal publication/grant proposal/any other research writing, appropriate action will be taken against them as per the guidelines of the University/UGC/Publisher/Funding Agency/any other competing authority.

Incentive Norms

It is informed that, the following incentive norms for various research and innovation activities carried out by the faculty members such as journal paper publications, patents, external research funding, consultancy and training services rendered and online course participation are as follows.

A) INCENTIVE NORMS FOR PAPER PUBLICATION

Publication of papers papers in Scopus Indexed Journals	Rs. 3000	
Publication of papers papers in SCIE Indexed Journals	Rs. 5000	
Publication of papers papers in Top 25 percentile Journals(Q1)	Rs. 7500	

Only first three author positions are eligible for incentives

Faculty members who are currently working in MCET and who published article with MCET affiliation are only eligible for incentive.

Incentive amount mentioned per article will be equally distributed among maximum of three MCET authors.

B) INCENTIVE NORMS FOR PATENT GRANT

Granted patent with inventors limited to 5 members and all are from our institution	Rs.7500	
Granted patent with inventors limited to 5 members (including members from other institutions)	Rs.5000	

C) NORMS FOR SHARING OF CONSULTANCY REVENUE

Net revenue received for consultancy	Institution resources are utilized	60:40 ratio 60% to Institution 40% as Incentive
	Institution resources are not utilized	40:60 ratio 40% to Institution 60% as Incentive
Norms for distribution of Incentive		
Faculty team members handling the consultancy 75%		
Department su work	15%	
MCET Office		5%
Central Office		5%

D) NORMS FOR SHARING OF INCENTIVE FOR EXTERNAL FUNDED PROJECTS

S.No	Nature of External Fund	Proposed Incentives & Norms		
-		Range	Incentive Amount (In Rs.)	
		Above 30 Lakh	1.0 Lakh	
		>25-30 Lakh	90,000	
Research Fundi		>20-25 Lakh	80,000	
(Proposals relations) (MODROB	S & TNSCST	>15-20 Lakh	70,000	
projects etc., are not considered)	e not considered)	>10-15 Lakh	60,000	
		>5-10 Lakh	40,000	
	>3-5 Lakh	30,000		
		2-3 Lakh	20,000	
The above incentive are to be shared as follows				
Description		% of share of incentive		
Principal investigator & Faculty team members (PI 40 %; Co-PI-30%; Other faculty team- 10%)		80%		
Department supporting staff involved in the project		15%		
If the department supporting staff not involved in the project		10% to PI & 5% to Office		
Office			5%	
50% of the incentive are to be distributed upon receiving first installment and the remaining 50% are to be issued after successful submission of Utilization Certificate.				

E) NORMS FOR REIMBURSEMENT OF REGISTRATION FEES FOR ONLINE COURSES

Participation in online courses only through COURSERA, NPTEL, SWAYAM platforms are mandatory for every faculty (Office Order 240, Dt. 26.10.2021) for which the yearly maximum claim per faculty is revised as Rs.1500.

Faculty members (Experience less than 5 years) are encouraged to complete modules under National Initiative for Technical Teachers Training through online mode. NITTT modules (8 nos) incurs totally Rs. 10,000 (Rs.2000 for one-time registration and Rs.1000 for each module) for completion. Faculty members can claim 30% of total amount after first year of registration another 30% at the end of second year and remaining 40% at the end of third year. Faculty members passing the module in first attempt are eligible for claim.

OD will be provided to attend selective on line course exams. Maximum 3 days/facu1ty/year.

Committees: Research Development Cell

S.No.	Council/Committee	Coordinators with Designation and Department
1	Research Advisory Council	Chairman: Dr. P. Govindasamy, Principal Members: Dr. S. Ramakrishnan, Dean R&I Dr. A. Senthilkumar, Dean A&A Dr. B. Kannapiran, Head/IQAC Dr. G. Anupriya, Professor & Head/CSE Dr. B. Saravanakumar, Assistant Professor (SS)/S&H Physics
2	Director - RDC	Convenor: Dr. S. Ramakrishnan, Dean R&I
3	Committee_1: Finance and Infrastructure	Dr. A. Senthilkumar, Dean A&A Dr. K. Murali, CoE, Professor & Head/Civil Ms. A.G. Priyavarshini, Assistant Professor(SS)/IT Mr. K. Sakthivel, Manager/Central Office Mr. D. Suresh, Engineer/Civil Maintenance
4	Committee_2: Research Program, Policy Development	Dr. M. Kaliamoorthy, Professor & Head/EEE Dr. B. Kannapiran, Head/IQAC Dr. P. Vivekanandan, Professor/AI&ML Dr. M. Jayaraj, Assistant Professor(SS)/Mech Dr. A. Shanmugapriya, Assistant Professor/S&H Chemistry
5	Committee_3: Collaboration & Community	Dr. M. Pandi, Associate Professor/CSE Dr. D. Nathan, Associate Professor/Mechanical Dr. P. Vivekanandan, Professor/AI&ML Dr. R. Ramesh, NSS Incharge, Assistant Professor/S&H Maths Mr. S. Nagarajan, Project Officer
6	Committee_4: Product Development, Monitoring and Commercialization	Mr. R. Chandrasekar, Associate Professor(SG)/AI&DS Dr. M. Mariyappan, Assistant Professor/S&H Physics Mr. V. Gurunathan, Assistant Professor/ECE Mr. S. Syed Masoodhu, Assistant Professor/Civil Mr. N. Praveen Sundra Kumar, Assistant Professor/IT
7	Committee_5: IPR, Legal & Ethical Matters	Dr. M. Selvakumar, Associate Professor/Automobile Dr. M. Jayaraj, Assistant Professor (SS)/Mech Dr. K. Rameshkumar, Assistant Professor/EEE Dr. D. Balamurugan, Librarian Mr. N. Praveen Sundra Kumar, Assistant Professor/IT

Research Ethics Committee

S.No.	Name of the Faculty	Designation	Role			
1	Dr. P. Govindsamy	Principal	Chairman			
2	Dr. S. Ramakrishnan	Dean – R & I	Convener			
3	Dr. A. Senthilkumar	Dean – A & A	Member			
4	Dr. G. Anupriya	Professor & Head/CSE	Member			
5	Dr. L. Chitra	Associate Professor/EEE & Head/S&H	Member			
6	Dr. M. Kaliamoorthy	Professor & Head/EEE	Member			
7	Dr. D. Balamurugan	Librarian	Member			

Functions of the Research Ethics Committee

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- > Approval of research projects that involve human participants or personal information.
- > Provide suggestions and advice on any research-related ethical concerns.
- Ensure that the institution complies with all statutory and regulatory requirements regarding its adherence to ethical, legal, and professional commitments and standards.
- To provide guidance to the Principal on concerns pertaining to integrity in research and ethical issues.
- Regular RDC initiatives will make sure that researchers are aware of the value of integrity and ethics and that they adhere to ethical standards for research and publication methods at the institutional, national, and international levels.
- All researchers should have access to the necessary tools in order to do a standard plagiarism check, which should be made mandatory.
- Faculty members shall utilize research software tools such as Turnitin and Urkund for similarity checking of research articles/student project reports.
- Furthermore, the RDC will educate the research community about questionable research and publishing procedures, as well as predatory journals.
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- In case of any faculty member/scholars/students who have committed the act of plagiarism in their thesis/project report/journal publication/grant proposal/any other research writing, appropriate action will be taken against them as per the guidelines of the University/UGC/Publisher/Funding Agency/any other competing authority.



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Initiatives of Office of Research and Innovation

- 1. Facilitating the hosting of International Conferences
- 2. Conduction of Open House Exhibition
- 3. Identifying potential IPR and providing financial support for filing
- 4. Facilitating Revenue Sharing of Consultancy
- 5. Managing the activities of the Institution's Innovation Council(IIC)
- 6. Convening meetings, Controlling and Monitoring NIRF data analysis
- 7. Periodic review of Ph.D. Scholar Progress
- 8. Periodic review of Department R&I activities
- 9. Periodic review of Ongoing External Funded Projects
- 10. Periodic review of Ongoing In-house R&D Projects
- 11. Periodic review of Ongoing Consultancy Works
- 12. Ph.D. Guide Identification and Allocation
- 13. Periodic Circulation of Calls for Proposals
- 14. Identifying and Sanctioning In-house R&D Projects for Faculty members
- 15. Identifying and Sanctioning In-house R&D Projects for Students
- 16. Formation of Research Interest Group
- 17. Formulation of Student Research Council
- 18. Publication of the R&I Newsletter
- 19. Incentive distribution to faculty for Research Contribution
- 20. Conducting Knowledge Sharing Sessions & Organizing Research Seminars
- 21. Facilitating faculty for attending Faculty Development Programs and workshops
- 22. Facilitating faculty for attending Online Certification Courses
- 23. Purchasing R&I Tools for checking Plagiarism and Grammar
- 24. Facilitating Students' participation in Seminars and Workshops
- 25. Facilitating Subscriptions for Printed and E-Journal

