



MODEL INSTITUTE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

Technology-Enabled Learning Policy

Name of the Policy	Technology-Enabled Learning Policy
Descriptions of the Policy	Provides a framework for consolidating Technology-Enabled Learning at MIET and envisages improvement in the quality of teaching and learning through the use of technology and the sharing of educational resources.
Policy applied to	All students, teachers and staff; Institution wide.
Policy Status	New
Approved Date	In-process
Effective Date	After the approval of the Statutory Body
Approval Authority	Management Committee
Governing Authority	TEL Committee
Responsible Officer	Principal/Director
Next Review Date	3 years after approval

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Glossary of Terms

Blended Learning: A teaching and learning approach that incorporates a blend of different methods, technologies, and resources to improve student learning. Examples of blended learning include the flipped classroom, online interaction followed by face-to-face teaching, and online learning supplemented by face-to-face practical exercises. Courses that combine online with face-to-face learning modes - where 30% - 80% of course content is delivered online - are considered blended courses.

e-Learning: is defined as a teaching and learning process that involves the integration of ICT to facilitate lifelong learning, information sharing and flexible learning management.

Flipped Classroom: A type of blended learning that reverses the traditional content delivery in the classroom, via pre-class, in-class and post-class activities resulting in a deeper and more meaningful learner experience than via traditional lectures. The learner activities may include watching videos, reading texts and undertaking reflecting activities.

Information and Communication Technology: A broad range of devices and technologies to acquire, store, and manage information processing, communication and dissemination. It encompasses computers, mobile, audio, video, and Internet technologies.

Massive Open Online Courses (MOOCs): MOOCs are online courses designed for large numbers of participants that can be accessed by anyone, anywhere using the Internet.

Open Educational Resources (OER): OER are teaching, learning and research resources and materials in any medium, digital or otherwise, used to support education/training/research, which reside in the public domain or have been released under an open licence that permits zero-cost access, reuse, revision, remixing, retention and redistribution by others, with no or limited restrictions.

Policy: A broad statement of intent and plan of action to guide day-to-day practice.

Technology-Enabled Learning: The practice of teaching and learning facilitated by the use of information and communication technology. Technology-Enabled Learning is about making learning possible through use of technologies: it involves facilitating new ways to serve existing learners as well as providing opportunities for learners who were previously 'out of reach'.

The Context

The use of technology at Model Institute of Engineering & Technology (Autonomous), is extremely important for imparting 21st-century skills to our students. MIET works on the premise that our learners should be skilled in the use of modern technologies during their education to help them transition to job scenarios in actual schools and industries. This makes them tech savvy and more employable than other learners who have not been exposed to technology. The use of technology is also important from the faculty point of view, as in order to use the latest software and educational technologies in class, staff needs to have the requisite ICT skills to be successful educators and easily disseminate knowledge to their trainees. With the system of education being completely dependent on the use of ICT, it is imperative for any organization to have a sound policy that governs the implementation of modern educational technologies and promotes the creation of technology-enabled learning environments across all educational programmes.

At the national level, the University Grant Commission (UGC) has been promoting the integration of information and communication technologies in teaching and learning. In line with the national development and the need of the 21st century learners, the policy has been developed.

Vision of MIET TEL Policy

To deliver the world-class learning experiences to the students at MIET through effective use of ICT, leveraging global best practices, content, tools and emerging pedagogies.

Principles

- Quality of student engagement
- Improve student learning outcomes
- Excellence and innovation in teaching-learning
- Champion ICT and OER adoption
- Promote lifelong learning

Objectives

1. Emerge as a TEL pioneer in the region.
2. Attain defined learning outcomes and graduate and post graduate attributes.
3. Engage students and encourage them to be lifelong learners using a variety of sources and technologies and facilitate a rich, engaging study environment.
4. Enhance capacity and capabilities of all faculty members through training and supporting policies to integrate ICTs in teaching and learning.
5. Create world class ICT infrastructure to support institution-wide adoption of TEL.

6. Facilitate access to OER and curated content by providing a framework and guidelines for the development and distribution of educational content by the teachers, students and non-academic staff.
7. Develop quality educational content and learning materials relevant to the local context.
8. Provide an accessible teaching and learning environment to people with disabilities.

Policy Statements

Technology and Infrastructure

Today, technology has become one of the important pillars for growth and survival of any educational institution that provides students and teachers a variety of educational resources and promotes innovation, creativity and collaboration among stakeholders. In accomplishing this goal, appropriate and advanced infrastructure which includes both hardware and software is essential for creating technology-enabled learning environment. Adopting appropriate and advanced technologies and regularly updating and upgrading these are crucial for MIET to create a healthy educational environment of high quality. To achieve the objectives set out in the TEL policy, MIET is committed to:

1. Set up and maintain appropriate ICT infrastructure including adequate networking infrastructure in all departments and open areas of the institution with adequate Internet bandwidth.
2. Select appropriate hardware, software and systems for teaching learning adopting systematic evaluation of technology according to specific institutional requirements.
3. Provide the controlled or user base access to internet, devices and relevant proprietary licensed or open-source licensed software/ERP/web/cloud services in the institution as per the latest technology trends.
4. Use a learning management system (LMS) for planning, designing, analysing and delivering blended and online learning.
5. Use cloud-based services for maintenance of platforms/websites in secure servers in India or abroad. Local servers may be used as required to provide intranet access to select resources and service.
6. Facilitate faculty and learners by supporting 'Bring Your Own Device' (BYOD) policy through mutual sharing of the cost and maintenance of devices and motivate them to ensure networking connectivity at their residence.
7. Maintain the computer labs and public access systems in library and elsewhere within the institution by providing Internet enabled computers for those not having access to devices for accessing teaching and learning.
8. Facilitate the faculty and learners with procuring, hiring or availing loan facilities for equipment or devices as per the demand.
9. Provide multiple power and data back-up systems to cater to power failure or device failures.
10. Facilitate the development of e-content for teaching, learning and assessment by providing appropriate authoring tools, technologies and support in a centralized place within the institution.

11. Set up and maintain institutional repository e-portfolio, similarly detection system and other relevant software as per the requirements of the teaching departments.
12. Promote adoption of alternate systems of hardware, software and systems to avoid down time issues and prepare a schedule for judicious use of the internet.
13. Take appropriate steps for disaster recovery by backup storage for all data/files of the teaching and learning systems regularly.
14. Provide smooth and efficient centralised IT support services to resolve technical issues related to technology enabled environments.

Teaching, Learning and Assessment

Integrating technology in teaching, learning and assessment makes learning experiences, engaging, effective and efficient. The goal of technology integration is dependent on rapid change in technologies and ability of the organisation to adopt to change, capacities of students and teachers to optimise the use of available resources, and institutional processes to integrate technology in teaching and learning. It is the process by which people and their institutional setting adapt to the technology that matters the most. Every teacher and administrative member of the organisation is responsible for the effective implementation of the TEL policy. Therefore, MIET shall:

1. Encourage every faculty member to review their courses/curricula at the time of annual planning of the course to integrate TEL in their classroom teaching and adopt blended learning.
2. Provide a seamless learning experience for students by having a centralised LMS and creating a course companion site for every course offered.
3. Encourage a learning environment that is collaborative, cooperative and engaging to promote individual excellence.
4. Review course outlines or syllabuses to appropriately align objectives/learning outcomes, activities and resources to the teaching-learning-assessment process in a technology-enabled environment, encouraging interaction and flexibility.
5. Encourage teachers to strengthen their curriculum transaction through use of discussion groups, audio visual materials, and interactive materials (e.g., quizzes, activities etc.) to foster collaborative learning. Teachers may incorporate into their courses a combination of suitable alternative/authentic online assessments, such as e-portfolios, performance assessments (e.g., e-simulations and reporting, e-journaling, blogging, vlogging/video presentations) in order to enhance the quality of teaching and learning.
6. Encourage teachers to develop courses adapting and remixing suitable open educational resources and facilitate the sharing of course content developed by the teachers or curated by them through an institutional Open Access repository to facilitate access by the public anywhere and anytime.
7. Promote use of innovative ways of measurement of student learning through internal assessment, including but not limited to field visits and reports, essays, blogs, wikis and special projects. Wherever applicable, all student assessment and their achievement records should be made available through the LMS or via a digital portfolio. Teachers are encouraged to provide feedback on online assessments to facilitate greater learning.

8. Ensure academic honesty and integrity by adopting an honour code and use appropriate software for this purpose. Promote the use of a similarity detection software to encourage learners to adopt ethical academic practice for all assignments submitted digitally. The decision of the teachers in all such cases shall be final.
9. Prepare annual calendar of approved MOOCs (e.g., from SWAYAM/ NPTEL etc.) in accordance with the guidelines of University Grant Commission/ AICTE and encourage students to register in those courses.
10. Adopt ethical practices in learning analytics and use of student data and respect student privacy in all teaching and learning platforms at MIET.
11. Organise orientations for students in the use of course-specific ICT tools or the LMS platform before the commencement of the semester/academic year; teachers shall be involved in these training sessions throughout the semester as is necessary during their courses.
12. Encourage students to access other open resources to make their learning experiences rich, engaging and relevant to the work environment. This will help them become independent lifelong learners.

Professional Development

Improving teacher skill and motivation levels is a critical precondition for the achievement of better student learning. Adequate and timely support needs to be imparted to the teachers to enable them to make effective usage ICTs for teaching, learning and assessment. Therefore, MIET shall:

1. Identify/establish a nodal unit in the institute/college to facilitate professional development activities.
2. Create processes to provide timely support to implement integration and use of technology in teaching, learning and assessment.
3. Develop comprehensive training programmes focused on technology-enabled learning to train faculty by organising induction, orientation and refresher programmes regularly.
4. Adopt a three-tier framework to train teachers on basic, intermediate and advanced technology-enabled teaching learning processes.
5. Identify TEL champions to drive TEL implementation at the institution level.
6. Devise a mechanism to recognize and identify talent among teachers and reward the teachers for implementing TEL best practices at the institution level.
7. Explore introducing resource grants and teaching learning awards for TEL initiatives.
8. Create provision for inclusion of TEL specific initiatives in the annual appraisal process
9. Create a knowledge sharing culture (community of practice) within the Institute/College and encourage teachers to share their best practices.
10. Collaborate with leading institutions within and outside country to implement TEL projects at MIET.
11. Endeavour to join national level initiatives like PMMNM on Teachers and Training with special focus on TEL.

Governance of TEL


For sound implementation of TEL policy in the Model Institute of Engineering & Technology (Autonomous), it is important to develop an effective structure of governance for effective monitoring and evaluation of the entire process. The Centre for Teaching & Learning of the Institute shall be the nodal agency to oversee the effective implementation of the TEL Policy. Accordingly, MIET shall:

1. Ensure that the TEL policy is implemented at department level by Head of the Departments.
2. Retain intellectual property/copyright of all the teaching-learning material/resources developed by the teachers and other staff members.
3. Share and distribute the teaching-learning material developed by the Institute under an open license to permit reuse, revision, remix, and redistribution of the same by others. However, the institute reserves its right to not share certain types of material which have been developed for a specific purpose. The institute shall create a platform for hosting the Open Educational Resources for distribution of the material.
4. Ensure that the - production of teaching-learning material is of high quality and conforms to international standards.
5. Monitor implementation of TEL through a committee (TEL Committee) which shall comprise of the following officers:
 - a) Principal (Chair)
 - b) Head, Centre for Teaching & Learning (Convenor)
 - c) HoD's of Teaching Departments
 - d) Members of the Quality Assurance Deptt.
6. The TEL Committee shall:
 - a) Provide strategic direction to institution's TEL initiatives, ensure that established objectives are achieved, manage risks properly, and allocate resources appropriately.
 - b) Prepare quarterly reports on the status of TEL implementation for review by MIET.
 - c) Prepare a long-term plan of action covering specific objectives, activities and indicators of success immediately upon adoption of the TEL Policy.
 - d) Receive annual action plans from each faculty and department to integrate technology and make recommendations for allocation of resources for the implementation of TEL in specific courses.
 - e) Facilitate surveys of student satisfaction and faculty feedback annually.
 - f) Develop/Adapt guidelines for quality assurance of blended courses/ OER and any other teaching and learning material development.
 - g) Prepare annual reports on the status of TEL in the University and provide relevant statistical insights to the senior management of the University.
 - h) Evaluate the effectiveness of TEL Policy after 3 years of approval of the same, and revise the policy based on the experiences gained and lessons learned.
7. Empower the Centre for Teaching & Learning as the nodal agency and facilitate the activities of TEL Committee, including technology implementation in the entire organisation covering complete management of the Institutional ERP, Website, Learning Management System etc.

Annex: Action Plan for Implementation of the TEL Policy (2021-2023)

Specific Objectives	Activities/ Targets	Resources	Responsibilities	Timelines
SO1: Provide high performance network infrastructure at the campuses of MIET	Review the status of local area network and WIFI connections and bandwidth to provide 99.0 % up time per year.	Allocate adequate funding	Director, MIET	January 2022
SO2: Adopt a Learning Management System and appropriate online facilities to provide improved blended learning	Set up Moodle LMS. Include plugins to meet the needs of various courses.	Organise training for Moodle LMS use	Centre for Teaching & Learning and IT Team	Organise training every six months.
SO3: Set up an open access repository to share learning content developed by teachers at MIET	Install of DSpace Create an OA repository using DSpace or integrate the requirements of OER repository into existing institutional repository. Make more teaching and learning resources available as OER.	Allocate funding and staff	Prepare Library staff to manage the system. Centre for Educational Technology to provide support	Set up OA repository by December 2021
SO4: Provide orientation and regular training to teachers to use ICTs effectively	Organise training on blended learning regularly to assist teachers develop courses	Provide budget and support staff for the training	Centre for Teaching & Learning	Conduct training for the staff at least twice a year

<p>SO5: Provide orientation to learners to use ICTs effectively</p>	<p>Create resources and offer training on digital literacy course for the students.</p> <p>Develop a guide to ICT for teaching and learning at MIET.</p>	<p>Provide adequate resources and faculty to undertake student training</p>	<p>All Faculty members</p>	<p>Organise digital literacy training regularly in between semester break and During new employee Orientation/ Induction; preferably using blended learning. Adopt C-DELTA for COL.</p> <p>Teach teachers/facilitators to orient students when using TEL.</p>
<p>SO6: Develop more blended courses for teaching and learning</p>	<p>Ensure all the courses offered use blended learning</p>	<p>Support faculty to develop blended courses</p>	<p>Centre for Teaching & Learning</p>	<p>Develop 20 blended courses to be offered in the semester beginning February 2022.</p> <p>Progressively develop more courses every year.</p>


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