

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC- AUTONOMOUS INSTITUTE - AFFILIATED TO JNTUA)**

MADANAPALLE – 517325

STRATEGIC PLAN (2022-23 to 2026-27)



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MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
STRATEGIC PLAN (2017-18 to 2021-22)

Preamble:

Madanapalle Institute of Technology & Science (MITS) was established under the auspices of Ratakonda Ranga Reddy Educational Academy, under the pro-active leadership of Dr. N.Vijaya Bhaskar Choudary, Secretary and Correspondent and Late Mr. N. Krishna Kumar, Chairman of the academy. The institute was started in the year 1998 in the picturesque and pleasant environs of Madanapalle and is ideally located on a sprawling 26.17 acre campus on Madanapalle – Anantapur Highway (NH-205) near Angallu, about 10 Km away from Madanapalle. MITS is approved by AICTE New Delhi and affiliated to Jawaharlal Nehru Technological University Anantapur (JNTUA). The institute was granted autonomous status from University Grants Commission (UGC) in the year 2014. MITS is governed by a progressive management that has been striving continuously with a vision to grow and become one of the best centres of academic excellence in Engineering and Technology in India. MITS offers undergraduate in Engineering stream and postgraduate programmes in Computer Applications & Business Administration. In addition to this MITS offers Doctoral Programmes in several disciplines. The profile of the institution is firmly based on strategies and action plans that match the changing demands of the nation and the student's fraternity.

MITS is highly proactive in framing, updating and executing the policies for attaining the Vision and Mission of the Institute.

Vision

To become a globally recognized research and academic institution and thereby contribute to technological and socio-economic development of the nation.

MISSION

To foster a culture of excellence in research, innovation, entrepreneurship, rational thinking and civility by providing necessary resources for generation, dissemination and utilization of knowledge and in the process create an ambience for practice-based learning to the youth for success in their careers.

Quality Policy

Madanapalle Institute of Technology & Science is committed to bring out and nurture the talents and skills of youth in the fields of Engineering and Management to cater to the challenging needs of society and industry by

- Contributing to the academic standards and overall knowledge development of the students
- Providing excellent infrastructure and conducive learning environment.

- Enhancing the competence of faculty members and promoting R & D Programs
- Collaborating with institutions and industries.
- Ensuring continual improvement of Quality Management System.

Devising the Strategic Plan of the Institute: To devise the Strategic Plan of the Institute, a detailed SWOT Analysis was conducted.

SWOT Analysis

Methodology, Analysis and Inferences:

Methodology: As a part of complete strategic planning exercise, MITS conducted a comprehensive SWOT–Analysis in the institution by eminent personalities from both academia and industry, with the involvement of Principal, Deans, HODs, Faculty members, Technical & supporting staff, Students, alumni, parents, and employers. Teams were set up with each of the groups listed above and separate brainstorming sessions were carried out with each group. SWOT was conducted by facilitators who explained about the purpose of the exercise to create congenial atmosphere for free flow of information and sharing of views. The participants were informed about significance of their participation in this exercise and how important it is for them to be candid, open and participatory. The process, which stretched over a period of two weeks, involved multiple sessions with all the stakeholders.

Information/Data Collection and Analysis: It was an extensive and collective reflection process on factors like-

- i. Human Resources- Faculty, Technical, non-technical and other staff
- ii. Infrastructure & Facilities - Buildings, Laboratories, Machinery, Equipment, Vehicles, Hostels, Furniture etc.
- iii. Processes - Governance, Management & Administration, Curriculum Development, Teaching-Learning Process, Student Support Services & Staff Development, Communication and Management Information Systems(MIS)
- iv. Products & Services – Students (intake, pass percentage, skill levels, placement percentage), Research, Publications, Consultancy etc.

The meetings conducted at length with all stakeholders have helped MITS to arrive at the Strengths, Weaknesses, Opportunities and Threats of the institution.

The SWOT analysis was conducted using the process described above in two components

- Internal assessment
- External assessment

The outcome of the SWOT Analysis is as follows:

Strengths (S):

- S1. Visionary management to take the institution to higher levels of quality.
- S2. Guidance from Distinguished Experts and Alumni on various Academic Bodies of the Institute.
- S3. Accreditations of eligible UG Programmes and PG Programme in Management by NBA.
- S4. Highly qualified, committed, experienced faculties from premier institutes.
- S5. Transparent Governance and Administration.
- S6. Good relationship amongst Management, Principal, faculty and Staff.
- S7. Autonomous status to design and update the curriculum in meeting the societal needs.
- S8. Institutional Support to the faculty in Knowledge Development, Research & Innovation.
- S9. Recognized Research Centres under affiliating university
- S10. Good infrastructure with well equipped laboratories, class rooms, seminar halls, auditorium, IT Infrastructure, e-learning Facilities etc.
- S11. Encouragement for Student Initiatives in MOOCS, Internships, etc .
- S12. Support for Career Development, Skill Development and Campus Placements.
- S13. Highly Active Industry Institute Interaction Cell connects students and faculty with industry in various aspects.
- S14. Active involvement of Students in organizing Technical Seminars/Workshops/Conferences/Symposiums/Certification Programs round the year.
- S15. Incentives for Meritorious Students from Institute and Support for getting Scholarships.

Weaknesses (W):

- W1. Communication skills of students coming from rural background.
- W2. Students Opting Higher Education.
- W3. Patents and Consultancy.
- W4. Admission to PG programs in Engineering.

Opportunities (O):

- O1. Increasing the centres of excellence in emerging areas.
- O2. Twinning Programmes with foreign universities.
- O3. Increasing International Student/faculty exchange programmes and research collaborations.
- O4. Promote Inter-disciplinary research.
- O5. Enhancement of Entrepreneurial activity.
- O6. Student admissions from other states and countries.
- O7. Alumni Networking for Academic and placement activities.
- O8. Providing technical expertise to society and community

Threats (T):

- T1. Competition from other private universities.
- T2. Fast Changing Technologies and Educational Eco-system.
- T3. Release of fee reimbursement dues to the institution.
- T4. Uncertainties in employment opportunities.

Strategic Plan for institutional development based on SWOT Analysis:

The strategic plan of Madanapalle Institute of Technology & Science (MITS) for 2022-23 to 2026-27 is built on the Vision and Mission of the Institute. Based on the assessment of the SWOT analysis, MITS has clearly defined its strategic plan. The specific goals and objectives are accomplished by a carefully drafted action plan, execution of which will enable the institute to become one of the leading techno-management institutes in teaching, R&D and Consultancy. The strategic plan outlines the key steps the institute needs to take to provide quality education, career guidance on employment, entrepreneurship, research and higher education for the students and faculty. The plan identifies the need to constantly upgrade

- the teaching learning processes
- student-faculty involvement in research and development
- opportunities in higher education and entrepreneurial activity
- international collaboration in research, faculty and student exchanges and joint projects etc.

The institute firmly believes that these would contribute to the growth of the institution.

The Strategic Plan identifies three broad areas to focus upon:

1. Teaching-Learning Process and Assessments
2. Skill Development, Social Responsibility and Entrepreneurship
3. Research, Innovation, Consultancy and Higher Education

Based on these central themes, the departments would develop their own action plans and align them with the Strategic Plan of the Institute.

MITS firmly believes that good Teaching-Learning Process would provide students with quality education focusing on the practical learning experience by providing customized student services, expanding learning opportunities outside the classroom (MOOCS, Internships, Industrial Trainings etc.). Continuous efforts on improving the quality of students' learning experience would lead to better career opportunities. This awareness among the aspirants would in turn attract the brightest minds thus increasing the quality of intake into the programmes. Strategic investment in research infrastructure, establishment of centres of excellence in emerging areas, continual industry interactions and collaborative interdisciplinary research leads to innovations by faculty and students. MITS aims to achieve University status by 2026 by achieving the goals and objectives specified in the Strategic Plan.

Leitmotif 1: Teaching Learning process and Assessments

Goals	Potential Initiatives	Quantitative Metrics
Goal 1: To impart quality education by updating the curriculum, recruiting qualified faculty and providing excellent academic infrastructure.	✓ Involvement of all stakeholders in refining/ fine tuning the curriculum based on local and global needs.	<ul style="list-style-type: none"> ✓ Curriculum is revised once in four years for UG programmes and once in two years for PG programmes. ✓ No. of DAB, IAAB, BoS, PAC Meetings conducted ✓ No. of Exit Surveys (Course, Graduate, Alumni, Employer, Faculty etc.) conducted
	✓ Introduction of interdisciplinary courses as Open Electives, Audit Courses to enhance employability.	<ul style="list-style-type: none"> ✓ Number of inter- disciplinary courses offered based on student's choice. ✓ The number of students who are placed in reputed Multi- National Companies.
	✓ Implementation of curriculum through Academic calendar, Lesson plans and course material.	<ul style="list-style-type: none"> ✓ All course materials uploaded in the e-learning platform.
	✓ Focus on recruiting highly qualified and experienced faculty from premier institutions across India and abroad.	<ul style="list-style-type: none"> ✓ Number of Ph.D. qualified faculty appointed in each department. ✓ Percentage of faculty with Ph.D. ✓ Maintaining Faculty Cadre ratio as per the norms ✓ No. of Visiting/Adjunct Faculty in the Department
	✓ Academic and Planning Cell monitors and provides the required Academic infrastructure	<ul style="list-style-type: none"> ✓ Number of ICT enabled classrooms and Seminar halls & scale up classrooms. ✓ Number of volumes of books, journals and periodicals in the Central/Dept.library
Goal 2: To enable students involve in active, participative and self-learning.	✓ Introduction of laboratory courses and internships to encourage Practice based learning	<ul style="list-style-type: none"> ✓ Number of laboratory courses in the curriculum ✓ Number of students who underwent internships in Industries/ Research organisations.
		<ul style="list-style-type: none"> ✓ Number of industry projects carried out by students.
	✓ Introduction of Massive Open Online Courses.	<ul style="list-style-type: none"> ✓ Number of MOOC's courses offered for credit transfer ✓ Number of students who accessed the video lectures of courses offered under NPTEL delivered by eminent Faculty from IITs. (got MOOCs Certifications)

	<ul style="list-style-type: none"> ✓ Quality Enhancement in Engineering Education 	<ul style="list-style-type: none"> ✓ Number of webinars conducted. ✓ Number of students benefitted.
	<ul style="list-style-type: none"> ✓ R&D and Innovation Centres encourage the students to collaborate and learn through Students High Active Research Program (SHARP). Student Research Projects 	<ul style="list-style-type: none"> ✓ Number of students benefitted in Student Research Projects ✓ Number of students participated in Smart India Hackathon and other design contests. ✓ Students working as teams in Mini and Major projects. ✓ No. of students who received Seed Money for Projects ✓ No. of students exchanged for Research with Foreign/Domestic Universities ✓ No. of Student Presentations ✓ No. of Student Publications ✓ Amount of Student grants received
	<ul style="list-style-type: none"> ✓ Learning management system to assist self-learning. 	<ul style="list-style-type: none"> ✓ Number of students benefitted through e-learning platform.
	<ul style="list-style-type: none"> ✓ Motivation for participation in Co-curricular and Extra-curricular activities 	<ul style="list-style-type: none"> ✓ Number of students participated in intra and inter college events like seminars, symposiums, workshops, cultural programmes, sports etc. No. of Idea Weeks organised
Goal 3: To ensure Quality Assurance and Endurance	<ul style="list-style-type: none"> ✓ IQAC periodically assesses the student quality 	<ul style="list-style-type: none"> ✓ Number of students securing good CGPA (ie. above 8.5)
	<ul style="list-style-type: none"> ✓ PBAS appraises the faculty through self-appraisal, student appraisal 	<ul style="list-style-type: none"> ✓ Rating of the faculty at different levels by periodic feedback from students.
		<ul style="list-style-type: none"> ✓ Assessment through Course end survey. ✓ Annual appraisals by faculty to assess their performance
	<ul style="list-style-type: none"> ✓ Internal and External audit 	<ul style="list-style-type: none"> ✓ Assessment by the internal and external audit team ✓ Evaluation by NBA, NAAC & ISO

Leitmotif 2: Skill Development, Social Responsibility and Entrepreneurship

Goals	Potential Initiatives	Quantitative Metrics
Goal 1: To impart skills to students to succeed in their career.	✓ Exclusive Training and Placement Cell.	<ul style="list-style-type: none"> ✓ Number of training programs conducted in house. ✓ Number of students placed in reputed organisations.(Core/Non-Core)
	✓ Establish centres of Excellence	<ul style="list-style-type: none"> ✓ Number of students trained for skill development.
	✓ Enhance Industry-Institute Interaction	<ul style="list-style-type: none"> ✓ Number of workshops conducted by experts from Industries. ✓ No. of Alumni interactions organised ✓ Number of students benefitted. ✓ Number of Industrial visits arranged ✓ Number of students who underwent internships
	✓ Department of English & Foreign Languages conducts Language training, Business English training and APTIS training to meet the global challenges	<ul style="list-style-type: none"> ✓ Number of students who learnt foreign languages like Japanese and German. ✓ No. of student magazines published ✓ Number of students certified by the University of Cambridge. ✓ Number of students certified by the British Council.
Goal 2: To enhance faculty, staff and students' contribution in order to improve quality of life and sustainable development of the society.	✓ Engineering Projects In Community Services (EPICS)	<ul style="list-style-type: none"> ✓ Number of projects benefitting society
	✓ Establishment of MSR club to promote social responsibility amongst faculty and students.	<ul style="list-style-type: none"> ✓ Number of activities carried out by the MSR club for the welfare of the society. ✓ Number of students actively involved.
	✓ Separate wing for NSS and NCC	<ul style="list-style-type: none"> ✓ Number of outreach programmes conducted. ✓ Number of students actively involved. ✓ Number of people benefitted through social awareness activities. No. of B & C Certificates received
	✓ NSS as Audit course	<ul style="list-style-type: none"> ✓ Number of students who pursued.
	✓ Establishment of Rural Immersion course.	<ul style="list-style-type: none"> ✓ Number of villages surveyed in and around Madanapalle

<p>Goal 3: To strengthen the entrepreneurship Development cell for continuously organising programs by actively involving successful entrepreneurs and Alumni to kindle the entrepreneurial spirit among the students.</p>	<p>✓ Entrepreneurship Development Cell to promote entrepreneurial activity</p>	<p>✓ Number of programmes conducted by ED Cell. ✓ Number of students benefitted by attending awareness programmes on Entrepreneurship. ✓ No. of students exposed to industry working environment through industry internship/projects etc (Offline) ✓ Number of Entrepreneurs</p>
	<p>✓ Financial support to students for entrepreneurial activity.</p>	<p>✓ Number of beneficiaries.</p>
	<p>✓ Establishment of an Incubation centre to promote entrepreneurs</p>	<p>✓ Number of start- ups. ✓ Number of people employed in the start-ups</p>

Leitmotif 3: Research, Innovation, Consultancy and Higher Education

Goals	Potential Initiatives	Quantitative Metrics
Goal 1: To promote innovations and research to address the challenges of the future.	✓ Recognised Research centres approved by JNTUA.	✓ Number of departments as approved Research centres under JNTUA
	✓ Strengthening Research & Development centre	<ul style="list-style-type: none"> ✓ Number of publications in SCI & Scopus indexed journals ✓ Number of projects sanctioned from funding agencies. ✓ Incentives provided by the management to the faculty for publications & projects. ✓ Number of patents filed.
	✓ Establishment of Industry supported labs to meet R&D requirements through Industry Institute Interaction Cell and NABL Certified Labs	<ul style="list-style-type: none"> ✓ Number of labs/ centres of excellence established. ✓ Number of collaborative projects. ✓ Number of industry experts involved. No. of students with skill development certifications from Industry/Research Labs
Goal 2: To offer consultancy services to neighbouring government/private organisations	<ul style="list-style-type: none"> ✓ Establishment of an exclusive Cell for Consultancy. ✓ Scaling up of laboratory facilities to enhance consultancy. 	<ul style="list-style-type: none"> ✓ Number of consultancy activities undertaken. ✓ Amount of revenue generated through consultancy works. ✓ Number of Beneficiaries @ Consultancy funds distributed in Society
Goal 3: To encourage students to pursue higher education.	✓ Collaborating with reputed foreign/Indian universities to promote higher Education.	✓ Number of students who secured admission in prestigious institutions for higher studies in India/abroad
	✓ International Relations Cell	<ul style="list-style-type: none"> ✓ Number of MOUs signed ✓ Number of students who enrolled for internships / higher studies.
	✓ Motivating students by organising Orientation/awareness programmes on IELTS, e-Study abroad	✓ Number of beneficiaries
	✓ Offer GATE Coaching	<ul style="list-style-type: none"> ✓ No. of GATE Coaching Hours conducted ✓ Number of students attending GATE Coaching Classes ✓ No. of students qualified in GATE ✓ @ No. of assessment tests conducted for competitive exams