

Malla Reddy Engineering College (Autonomous)

Maisammaguda, Dhulapally (Post Via Kompally), Secunderabad – 500100

Institutional Strategic Plan

Institutional Strategic Plan and its Effective Implementation and Monitoring The institutional strategic plan comprising of different strategies for the institutional development has been prepared and made available by carrying out systematically strength, weakness, opportunities, challenges (SWOC analysis) of the institute as explained in the following paragraphs.

The Director, Principal, Deans, all HoDs and Stake holders of the Institute had several interactions, discussed extensively and arrived at the tentative institutional level SWOC analysis. This institutional level SWOC analysis has been reviewed in conjunction with the department level SWOC analyses to arrive at a consolidated institute-level analysis. This was again discussed with all the faculty and staff to finalize the Strengths, Weaknesses, Opportunities and challenges of the institution as detailed below:

Procedure adopted for conducting the SWOC analysis and participation of the Stakeholders:

1. SWOC analysis was carried out by involving all stakeholders such as management, faculty, supporting staff, students, parents, alumni and representatives of employers. For this there were group consultations and discussions.
2. Meetings and consultation were conducted with the HODs and senior faculty. Each department submitted data on strengthening the following institutional infrastructure, laboratories, workshops, library and connectivity. Inputs were also received on new PG programs particularly in emerging areas training for the faculty and additional software's that could be procured.
3. Adequate emphasis has been given to faculty development. Faculty/non-teaching staff provided their respective Training Needs Analysis.
4. Assessments were made on the additional academic inputs to be provided to the students hailing from weaker sections of the society such as SC/ST/OBC.
5. At the departmental level, departmental faculty, technical staff and students discussed their respective SWOC analysis.
6. Departments submitted their departmental development plans to the Principal's office.

7. Principal's office has consolidated the SWOC and the action plan received from the departments.
8. The entire developmental plan in totality was discussed with HODs /senior faculty. Their inputs and suggestions were considered.
9. The development plan was placed before the BOG for consideration and approval.

While carrying out the SWOC analysis the following factors were considered:

- a. Existing Infrastructure of the institute which includes buildings, laboratories, equipment, workshops, library, connectivity, transport, furniture, hostels, medical facilities, play grounds, canteen, availability of Bank and Post office facilities etc.
- b. Fee structure, admission policies of the government including reservations, requirements of the affiliating university JNTUH / AICTE / UGC.
- c. Outcome based Curriculum Development and teaching & learning processes.
- d. Additional academic support for weaker students to improve their performance in the examination.
- e. Employability rate.
- f. Training Needs of Faculty/Technical Staff/Supporting Staff.
- g. Research, consultancy and IPR.
- h. Industry Institute Interaction.

After several brain storming sessions, the strengths, weaknesses, opportunities and challenges were identified:

Strengths:

- S1. Supportive management, committed faculty & staff and motivated students.
- S2. Conferred the prestigious Autonomous Status by UGC, New-Delhi. in the year 2014.
- S3. Accreditation of the college by National Assessment and Accreditation Council (NAAC) with 'A' Grade (Cycle-II) for a period of 5 Years starting from 2015-16.
- S4. Accreditation of all eligible UG Programs of National Board of Accreditation till June 2020.
- S5. Availability of faculty in all required positions. High qualification experience of the faculty comprising 76 Ph.D's predominantly from reputed universities, IITs, NITs, etc...
Ongoing PhD work of 47 faculty members in different in Institutions of Eminence.
- S6. Successful implementation of Out-Come Based Educational process.

- S7. Innovation and Entrepreneurship Development Cell (EDC) have been Established to encourage the entrepreneurship among the students.
- S8. Excellent Industry-Institution Interaction which resulted in placement of 90% of the eligible students.
- S9. Adequate and well-maintained infrastructure for Curricular, Co-curricular and Extracurricular activities which include Yoga/NCC/Sports/Cultural clubs/etc.
- S10. Well established Library with adequate books and Journals conforming to affiliating University JNTUH/AICTE/UGC requirements. Digital Library with subscription to E-Journals. Rich E-learning resources etc.
- S11. Robust and scalable IT Infrastructure with 1600+ computers, 1 Gbps Internet connectivity and Wi-fi facility.
- S12. Residential facility which has separate Girls & Boys Hostels for more than 1500 students with In-house Mess on the campus.
- S13. Good participation of students in Co-curricular and extra-curricular activities at National Level.

Weaknesses:

- W1. Admissions based on State Govt. norms results in the admission of some academically weaker students.
- W2. PG programs do not attract highly talented students.
- W3. Not enough highly merited students are opting for higher studies/Research.

Opportunities:

- O1. Improve quality of research by increasing interactions with industry and R&D organizations.
- O2. Strengthening interaction with Alumni to facilitate better connectivity with the industry.
- O3. Creating training facilities to improve teaching capabilities of faculty.
- O4. Increasing academic help to assist weaker students especially belonging to SC/ST/OBCs.
- O5. Starting new UG and P.G Programs in emerging areas.
- O6. Accrediting the remaining few eligible UG & PG Programs.
- O7. Institute has scope to get its rank in NIRF ranking.

Challenges:

- C1. Fluctuating trend in global economy leads to decrease in placement opportunities. To overcome this MREC encourages its students to turn into entrepreneurs.
- C2. To strengthen Industry Institution Interaction.
- C3. Ensuring financial viability of the Institution as the norms for admissions are regulated by the State Govt.
- C4. To enhance chances of sponsored projects and financial aid from funding agencies.

Summary:

It is evident from the above analysis that MREC(A) has the potential to emerge as premier centre of professional education and research. It has strategic intent, requisite facilities and manpower for realizing its Vision. With its emphasis on quality, Innovation and entrepreneurship, MREC(A) can transform itself into an Institution of choice for budding young and bright minds.

Strategic Plan

After understanding the Strengths, weakness opportunities and threats for MREC(A) has developed the following strategic plan was drafted for the period 2016 to 2021 for transforming MREC(A) into a quality technical education institute at the global level.

- To provide trained and skilled engineers of the highest quality to meet the global needs.
- To provide blended learning environments through Academic and Administration Reforms leading to improved learning outcomes for the students.
- To further improve our Laboratories /Research facilities/ Library to enhance the quality of teaching and learning process.
- To enhance the research culture and entrepreneurship among the faculty and students.
- To create an environment that enhances the interaction with reputed Indian/international institutions through mutual sharing of resources and joint research projects.
- To extend academic help to assist academically weaker students.
- To strengthen the competency of the faculty through Faculty Development Programmes and skills of Technical Staff and others through periodic training program.
- To Strengthen Industry/ Institute / Alumni Interaction enabling better placements and increased number of internships.
- To start new UG/PG Programs in emerging areas/technologies, thus improving the potential of employability among students.
- To obtain full accreditation for the eligible UG / PG Programs.

By considering the strategic plans mentioned above, we chalked out the objectives and related expected outcomes for the strategic plan.

Strategic plan based on SWOC analysis	Specific Objective	Expected Results	Present status
To produce trained and skilled engineers of the highest quality to meet the global needs	<ol style="list-style-type: none"> 1. To increase the interaction with Tier-1/Tier-2 Industries. 2. To enhance learning activities such as Case studies/course projects/ assignments/etc. 3. To improve training of students on Contemporary issues 	<ul style="list-style-type: none"> • Increased Placements of Graduates. • Enhanced learning outcomes of the graduates leading to increased learning outcomes. 	<ul style="list-style-type: none"> • At present around 80% student's placement rate achieved and will target up to 100% in next 2 years. • There is a consistent improvement in the pass percentage of the students which shows the improvement in learning outcomes.
To provide online learning environments through Academic and Administrative Reforms leading to increased learning outcomes of the students.	<ol style="list-style-type: none"> 1. To conduct Enrichment Programmes for senior Faculty. 2. To provide OBE training for all faculty members to strengthen outcome-based learning and teaching (OBLT). 3. To enhance learning activities such as Case studies/course projects/ assignments/etc. leading to increased learning outcomes 	<ul style="list-style-type: none"> • Enhanced learning outcomes of the graduates • Conducive working environment for all stake holders. 	<ul style="list-style-type: none"> • A series of workshops were conducted on OBE for the faculty members. • Several case-studies are done by students for the appropriate courses. • Effective Implementation of flipped class rooms has to be ensured in the next year.
To further improve our Laboratories /Research	<ol style="list-style-type: none"> 1. To set up of new laboratories in the emerging areas to improve the quality of 	<ul style="list-style-type: none"> • Rich Library Resources. 	Centres of Excellence have been established. Library building has been revamped and large no of

<p>facilities/ Library to enhance the quality of teaching and learning process.</p>	<p>PG/research in the institution. 2. Strengthening of Library resources to keep pace with fast change in technology.</p>	<ul style="list-style-type: none"> • Modern PG / Research Laboratories. 	<p>volumes and titles have been added. Digital library has been established. Online examination centre with around 300 systems internet connection has been established.</p>
<p>To enhance research culture and entrepreneurship among the faculty and students.</p>	<ol style="list-style-type: none"> 1. To provide Seed money for pursuing research to Young faculty 2. To organize workshops/training on specific area of research for both faculty and students. 3. To organize training on IPR and entrepreneurship 	<ul style="list-style-type: none"> • Attracting more Funded Research projects/Consultancy/Quality Research Publications • Focus towards IPR and Entrepreneurship 	<p>The no of research publications is increased from the past 2 years. 17 patents have been filed and published in the last 2 years. Around 50 lacs funded projects have been sanctioned by different government agencies.</p>
<p>To create an environment that enhances the interaction with reputed Indian/international institutions through mutual sharing of resources and joint research projects.</p>	<p>To further motivate the faculty and students to establish networking with reputed Institution</p>	<ul style="list-style-type: none"> • Faculty/Student Exchange • Joint research projects • Increased number of MOUs 	<p>Collaboration with IUCEE and EPICS. MOU with Bennett university for establishing centre of excellence in Artificial intelligence. MOU with Lincoln university for student exchange.</p>

To Extend academic help to assist academically weaker students.	To identify and handhold the academically weaker students	<ul style="list-style-type: none"> • Improved pass percentage /transition rate. • Enhanced employability 	Remedial classes are scheduled for identified slow-learners.
To strengthen the competency of the faculty through FDPs and skills of technical staff and others through periodic training program	To develop the faculty and staff holistically for enhancing their efficiency and effectiveness for fulfilling the requirement of various academic responsibilities	<ul style="list-style-type: none"> • Skilled/Competent Faculty and staff. 	Conducted significant number of self-financed and sponsored FDPs and training programs.
To Start new UG/ PG Programs in emerging areas /technologies, thus improving the employability among students.	<ol style="list-style-type: none"> 1. Strengthening of the existing UG/PG programmes. 2. Starting of new UG/PG programmes in the thrust/ emerging areas 	<ul style="list-style-type: none"> • Research Focused PG Programs. • Skilled PG Students leading to better employment. 	Proposed one UG programme in Artificial Intelligence & Data Sciences and one PG programme in VLSI & Embedded Systems.
To obtain Accreditation for the all the UG / PG Programs.	<ol style="list-style-type: none"> 1. To obtain Tier-1 NBA accreditation for eligible UG/PG programs 2. To obtain extension of UGC autonomous status for Institution. 3. To obtain NAAC cycle III accreditation for the Institution. 	<ul style="list-style-type: none"> • 100% of the Programs Accredited. 	All the eligible UG and PG programmes are NBA accredited.