Madanapalle Institute of Technology & Science श्रद्धावान लभते ज्ञानम

ANNUAL QUALITY ASSURANCE REPORT

(July 2016 - June 2017)





Madanapalle Institute of Technology & Science
(Affiliated to JNTUA, Ananthapuramu and Approved by AICTE, New Delhi)
Post Box No: 14, Angallu, Madanapalle-517325
Chittoor District, Andhra Pradesh
WEB: www.mits.ac.in

The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (*Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013*)

Part - A 1. Details of the Institution 1.1 Name of the Institution MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE POST box NO 14, KADIRI ROAD 1.2 Address Line 1 Address Line 2 ANGALLU (VILLAGE) **MADANAPALLE** City/Town State ANDHRA PRADESH 517325 Pin Code Institution e-mail address principal@mits.ac.in Contact Nos. 08571-226499 Name of the Head of the Institution: Dr. C. YUVARAJ Tel. No. with STD Code: 08571-280255 +91 9160020789 Mobile:

Name of the IQ	Name of the IQAC Co-ordinator:				Dr. R. Varadarajan			
Mobile:					+91 9100973231			
				_				
IQAC e-mail a	IQAC e-mail address:				iqad	c-coordinator@	mits.ac.in	
						APCOGN26		
1.3 NAAC Tra	ck ID (For ex	. MHCOG	N 18879)			7 11 00 01 12 0		
					- 0 (0 0) (0	. / /		
	1.4 NAAC Executive Committee No. & Date: EC (SC)/21/A&A/45.1							
This EC no	o. is available	in the righ	t corner-	bottom				
of your ins	titution's Acc	reditation (Certificate	e)				
1.5 Website ad	dress:					www.mits.a	ic.in	
***				https:	//www.mits	.ac.in/AQAR201	16-17.pdf	
We	b-link of the A	AQAR:	l					
	For ex. http://	/www.lady	keanecoll	ege.edı	ı.in/AQAR2	2012-13.doc		
1.6 Accreditati	on Details							
G1 37			G G D .	7	Year of	Validity	1	
Sl. No.	Cycle	Grade	CGPA	Acc	reditation	Period		
1	1st Cycle	B++	2.77		2017	5 years		
2	2 nd Cycle							
3	3 rd Cycle							
4	4 th Cycle]	
					г			
1.7 Date of Est	ablishment o	f IQAC:	DD/MM	/YYYY	7	29-06-20	15	

1.8 AQAR for the year (for example 2010-11)

2016-17

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11submitted to NAAC on 12-10-2011) i. AQAR __ (DD/MM/YYYY) ii. AQAR___ _____ (DD/MM/YYYY) iii. AQAR_ (DD/MM/YYYY) iv. AQAR_ (DD/MM/YYYY) 1.10 Institutional Status University State Central Deemed Private Affiliated College Yes Constituent College Yes No Autonomous college of UGC Yes No Regulatory Agency approved Institution Yes (eg. AICTE, BCI, MCI, PCI, NCI) Women Type of Institution Men Co-education Urban Rural Tribal UGC 12B **Financial Status** Grant-in-aid UGC 2(f) Grant-in-aid + Self Financing Totally Self-financing 1.11 Type of Faculty/Programme Science Commerce Law PEI (Phys Edu) Arts TEI (Edu) Engineering Health Science Management

Master of Copumter Applications (MCA)

Others (Specify)

1.12 Name of the Affiliating	University	(for the	Colleges):
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JNTUA, Ananthapuramu (Andhra Pradesh)

1.13 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University	-		
University with Potential for Excellence	-	UGC-CPE	-
DST Star Scheme	-	UGC-CE	-
UGC-Special Assistance Programme	-	DST-FIST	✓
UGC-Innovative PG programmes	-	any other (Specify)	TEQIP
UGC-COP Programmes 2. IQAC Composition and Activities	-		
2.1 No. of Teachers	15		
2.2 No. of Administrative/Technical staff	6		
2.3 No. of students	0		
2.4 No. of Management representatives	1		
2.5 No. of Alumni	2		
2. 6 No. of any other stakeholder and			
Community representatives	2		
2.7 No. of Employers/ Industrialists	2		
2.8 No. of other External Experts	1		
2.9 Total No. of members	29		
2.10 No. of IQAC meetings held:	4		

2.11 No. of meetings	with various stakeholders: No. 4 Faculty 4
Non-Teachi	ng Staff Students 1 Alumni 3 Others 2
2.12 Has IQAC recei	ved any funding from UGC during the year? Yes No
If yes, men	tion the amount NA
2.13 Seminars and C	onferences (only quality related)
(i) No. of Semin	ars / Conferences / Workshops / Symposia organized by the IQAC
Total Nos. 3	International National State Institution Level 3
(ii) Themes	 Orientation programs for newly joined faculty Induction program for newly joined students Women's empowerment program

2.14 Significant Activities and contributions made by IQAC

- Internal Quality Assurance Cell (IQAC) is actively involved in planning, coordinating and executing all required procedures by conducting academic audits routinely. It develops the quality benchmarks/parameters for various academic activities. The cell regularly collects feedbacks from alumni, parents, employers and staff on the day to day functioning for further development in the institute. The institute addresses the grievances of students and staff through General Grievance Cell and Women Grievance Cell.
- The IQAC ensures that the lesson plans, course materials, and assignments are posted on MOODLE regularly.
- IQAC ensures through department wise audits that the quality of teaching learning material meets the requirements.
- IQAC ensures that the assignments are designed to impart skill-sets specified in the course outcomes.
- IQAC ensures that the quality of testing process meets the required level for UG and PG courses. For example, the IQAC ensures that the examination department strictly adheres to Bloom's Taxonomy while preparing question papers.
- IQAC ensures that the students are motivated by monitoring and auditing the mentorship processes.
- The IQAC organizes and facilities annual appraisal in respect of all faculty of institute.

The plan of action chalked out by the IQAC at the beginning of the year towards quality: enhancement and the outcome achieved by the end of the year *

Plan of Action	Achievements
Plan of Action To establish a robust learning delivery system through internal audits	The learning delivery system has been refurbished with the provision of laptops/desktops to faculty, and Moodle platform for posting material/information related to courses. Internal audits have ensured that the course materials are relevant, useful, and supportive of the classroom sessions. Additionally, the audits have ensured that course materials are posted on the Moodle platform in a timely manner. Further, a new lab with 65 computers with state of
	the art configuration for teaching business and digital analytics has been established.
Establish a system for student participation in international programs	UIF program: The University Innovation Program in India is a partnership between Stanford University & Google. MITS is one of the two colleges in Andhra Pradesh to be selected for this program. All expenses in respect of students' travelling, lodging and boarding are taken care by Google and Stanford University. It brings out opportunities in higher educational institutions in India to help students and faculty. It is aimed at creating innovation and entrepreneurship ecosystems in institutions. This program trains the students from around the world to become leaders of change in higher education. It trains students for accessing global network of innovative students and faculty at Stanford University through Google and other Silicon Valley companies.
Establish a system for student skill enhancement through cross functional projects	During a 6 weeks online training program, student fellows learn & develop valuable skills such as, entrepreneurial mind set, design thinking process, problem-solving skills and learning how to engage in

creative activities. Students also do interdisciplinary projects across departments and topics to solve engineering problems which have provisions in the curriculum itself. Students programs like project contests, project expo, demonstration etc. create opportunities for students to develop skills.

Ensure participation in extracurricular activities such as cultural programs, sports and arts

Institution conducted annual day, sports day, fresher's day and cultural festival day during the academic year. All departments had organized domain specific programs / students' symposiums that included participation of students and faculty from other institutions as well. Students also participate in NSS, NCC and orientation program for freshers.

2.15 Whether the AQAR was	placed in statutory body	Yes 🗸	No _
Management	Syndicate _	any other body	✓

Provide the details of the action taken

- The governing body approved the inclusion of cultural programs, sports, and arts in the institutional calendar
- The academic council passed the academic calendar incorporating cultural programs, annual sports day, and arts exhibition
- The principal appointed a faculty member as an institutional coordinator for organizing, and conducting extracurricular programs with the involvement of students.

^{*} Attach the Academic Calendar of the year as Annexure.

Part - B

Criterion - I

1. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	9	-	-	-
PG	8	-	-	-
UG	7	1	-	-
PG Diploma	-	-	-	-
Advanced Diploma	-	-	-	-
Diploma	-	-	-	-
Certificate	-	-	-	-
Others	-	-	-	-
Total	24	1	-	-
Interdisciplinary	-	-	-	-
Innovative	-	-	-	-

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options

The curriculum is designed to offer choice based credit system (CBCS), core courses, elective options, and open elective options. The provision for CBCS is included in the curriculum to encourage students to select courses according to the career objectives of the students. The core courses are designed to impart domain specific fundamental knowledge to enable the students to pursue courses offered under CBCS list of courses. Open electives list contains courses that allow students to choose industry specific courses in line with their domain specialization.

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	14
Trimester	-
Annual	9

1.3 Feedback from stakeholders*	Alumni	✓	Parents	✓	Employers	✓	Students	✓
(On all aspects)							_	
Mode of feedback: Online	✓ Ma	anua	1 🗸	Co-o	perating school	s (for	PEI)	

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

- Since the curriculum was reviewed and revised in 2014, it will be again reviewed in 2018. The PG curriculum was revised in 2016 to include state of the art concepts in the syllabus.
- Students are encouraged to undertake industrial internships for real time experience. Additionally, 2 credits' mini projects are included in curriculum in all programs.
- Introduction of full semester project and seminar for engineering PG programs during second year (3rd and 4th semesters)

1.5 Any new Department/Centre introduced during the year. If yes, give details.

- Skill development Center in collaboration with Andhra Pradesh State Skill Development Center (APSSDC) is established during academic year.
- SIEMENS center –Andhra Pradesh State Skill Development Corporation (APSSDC) recognized
 Madanapalle Institute of Technology & Science (MITS) as APSSDC Siemens Technical-Skill
 Development Institute. The SIEMENS funded to a tune of Rs 275 lac for creating state of art lab
 facility under this scheme.

^{*}Please provide an analysis of the feedback in the Annexure

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
382	247	53	27	55

2.2 No. of permanent faculty with Ph.D.

327

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Pro	ofessors	Associate P	rofessors	Profe	essors	Oth	iers	To	tal
R	V	R	V	R	V	R	V	R	V
117	3	13	12	11	1	0	0	141	16

2.4 No. of Guest and Visiting faculty and Temporary faculty: Guest: 42 visiting: 13 Temporary: 0

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/	17	13	-
Presented papers	43	8	2
Resource Persons	2	3	2

2.6 Innovative processes adopted by the institution in Teaching and Learning:

1. MATH LAB:

Mathematic Lab concept has been introduced in 1st-year engineering programs to solve
engineering problems easily by simulating mathematical models. This lab provides a
rigorous training in mathematics. Dr. Kuldeep Singh from WSU, USA has trained a few
MITS faculty who in turn will train other faculty under a train the trainer program. MITS
has plans to offer this course as a credit course in future if pilot program becomes successful.

2. SCALE-UP CLASS ROOM

MITS has set up Student-Centric Active Learning Environment class rooms with the
objective of promoting flipped class rooms. Dr. David M. Kender has trained a select group
of faculties on the art of running flipped class rooms. Currently this program is running
successfully.

3. PROJECT BASED LEARNING (PBL)

MITS has initiated the concept of "Project Based Learning (PBL)" with a view to provide
experimental and application-based learning of concepts. PBL has also been useful in
enhancing creative and critical thinking. Additionally, PBL has enabled creative thinking
amongst students. First batch of 42 faculty have been trained on lines who are in turn
rendering their services currently.

2.7 Total No. of actual teaching days during this academic year

220

2.8. Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, and Online Multiple Choice Questions)

The following are the examination / evaluation reforms initiated by the institution since it became autonomous.

- Continuous internal assessment For all the theory courses, mandatory submission of assignments with 10 and 20 marks for assignment for UG and PG courses respectively
- Evaluation of assignments using MOODLE platform (online evaluation).
- Integration of MOOCS courses in curriculum. Students have to choose certain courses as per curriculum and the decisions of Internal Departmental (ID) committee for online courses such as NPTEL.
- The Choice Based Credit System including Open Electives (OEs) has been implemented in the college. It is mandatory for Under Graduate (UG) students to study CBCS courses as per the curriculum structure.
- Double blind valuation system has been introduced.
- Grading system has been implemented in place of absolute marking.

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

Member of BOS	Faculty Development	Curriculum Development
60	107	50

2.10 Average percentage of attendance of students

80%

2.11 Course/Programme wise distribution of pass percentage:

Title of the	Total no. of					
Programme	students	Division				
	appeared	Distinction %	I %	II %	III %	Pass %
B. Tech	656	208	243	12	0	0
M.Tech	54	49		-	-	-
MCA	37	31	4	-	-	-
MCA (2Yrs)	50	24	9	-	-	
MBA	148	59	54	1	-	-

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

The IQAC conducts internal audits of teaching learning plans and the material used to execute the same. A two-member team from a pool of IQAC internal auditors review the adherence to the stipulated processes. The auditors raise Non Conformity (NCs) reports wherever deviations are found and heads of departments are instructed to constitute a team of faculty to comply non-conformities at the earliest and subsequently analyse the root causes for preventing recurrence of the deviations.

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Program	Number of faculty benefitted
Refresher courses	3
UGC – Faculty Improvement Programs	10
HRD programs	-
Orientation program	25
Faculty exchange program	19
Staff training conducted by the university	1
Staff training conducted by other institutions	13
Summer / Winter schools, Workshops, etc.	94
Others	1 (Departmental research Seminar Series)

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	166	0	0	0
Technical Staff	43	0	10	0

Criterion - III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

The IQAC organizes workshops for faculty on project proposal preparation and writing concepts with the help of a full time associate director of research and development.

IQAC disseminates call for project proposals, paper presentation in conferences, seminars, and helps the faculty to show case their talents.

The IQAC coordinates and facilitates / recommends incentives for research publications, exceptional achievements, granted projects' execution etc.

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	2	08	3	4
Outlay in Rs. Lakhs	9.28	221.45	87.86	4800.93

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	9	10	9	-
Outlay in Rs. Lakhs	25.07	21.6	21.35	-

3.4 Details on research publications

	International	National	Others
Peer Review Journals	123	10	-
Non-Peer Review Journals	11	-	1
e-Journals	06	1	-
Conference proceedings	33	6	-

3.5 Details on impact factor of publications:

Range	0-8.867	Average	2.494	h-index	15	Nos. in SCOPUS	58	
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3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received				
	A Major Projects							
Investigations on DC-Nano grid for rural applications	3	DST-SERB	14,99,163	11,17,163				
Magneto-electric coupling in alternative multi Nano - layers of ferroelectric and ferromagnetic materials on planner and stepped interfaces	3	DST-SERB	34,49,600	23,74,883				
Investigation and characterisation of EDC alloys for mitigation of biological fouling on maritime structures	3	DST-SERB	38,37,690	27,34,440				
Experimental investigations and hybrid approach for modelling and multi objective optimization of pulsed laser milling of micro-channels	3	DST-SERB	34,39,000	20,40,000				
Simulation and analysis of fire accidents in passenger train cars	3	DST-SERB	25,79,600	12,93,199				
Some studies on domination parameters of Cayley Graphs à 3 Years (2015-18)	3	DST, SERO, WOS-A	26,40,000	17,60,000				
Design and development of brain test adequacy system to improve cognitive index of young India using non- invasive brain sensor and artificial neural network.	3	DST-CSRI	26,69,600	15,60,000				
Computational analysis of boundary layer of non- Newtonian fluids in porous media (2015-18)	3	DST, SERO, WOS-A	20,30,000	12,80,000				
Total Gr	Total Grant of Major Projects (A) in Rs							

		B Minor Projec	cts		
Design and fabrication of					
multi-crop smashing	1		of	25,500	25,500
combination thresher		Engineers		,	·
Development of ZnO-SnO2					
thin films-characterization	2	LICC CEDO		2.05.000	2 20 000
and study of their solar cell	2	UGC-SERO		2,95,000	2,30,000
applications					
Investigation of certain					
control strategies on Brush-		HGG GEDO		4.20.000	2.02.500
less DC Motor with artificial	2	UGC-SERO		4,20,000	3,92,500
intelligence applications					
Development of a cloud to					
monitor and track the	2	UGC-SERO		52,000	37,000
Vehicles at check posts				,	27,000
A Study on career planning					
absurd among students and	2	UGC-SERO		1,20,000	75,000
its impact on employability		e de BERto		1,20,000	73,000
Design and development of					
hybrid vehicle for physically	2	UGC-SERO		3,30,000	2,70,000
challenged persons	_	e de BERto		3,50,000	2,70,000
Decision support system for					
agricultural land for crops in	2	UGC-SERO		80,000	60,000
kadapa and chitter district	_	e de Blito		00,000	00,000
Analysis and optimization of					
tube hydroforming process					
parameters for corrosion	2	UGC-SERO		3,85,000	2,42,500
resistance material					
Development of advanced					
image processing methods					
for assessing and monitoring					
the content of trees outside	2	UGC-SERO		3,70,000	2,70,000
forests using IRS high					
resolution satellite images					
Effective usage of					
technology in imparting					
career skills for academically	2	UGC-SERO		3,00,000	2,50,000
backward students of	_	000 52110		2,00,000	2,00,000
engineering					
Monitoring of water level					
variations in rivers, Dams,					
reservoirs and Flood alert	2	UGC-SERO		4,50,000	3,65,000
system using wireless sensor				1,2 0,0 0 0	2,02,000
networks					
	of Mino	r Projects (B) in R	Rs.	28,27,500	22,17,000
		C Any others (Spe			, ,
Modernization of			Ī		
microwave and optical 2		AICTE-		5,20,000	5,20,000
communication lab		MODROB			<u> </u>
Total gran	ıt undei	other category (C	C)	5,20,000	5,20,000
Total Grant $(A + B + C)$ in	n Rs.			254,92,153	168,96,685

3.7 No. of bool	ks published	i) With ISBN No.	12	Chapters in	Edited Bo	oks 10			
	i	ii) Without ISBN N	No						
3.8 No. of Univ	3.8 No. of University Departments receiving funds from - Not Applicable								
	H	GC-SAP	CAS _	DS	T-FIST	_			
		JC-SAI _	CAS _	Do	01-1/101				
	DF	PE		DE	BT Scheme	e/funds -			
3.9 For college	es Au	itonomy -	CPE -	DBT Star	Scheme	-			
	IN	SPIRE -	CE	Any Other	(specify)	DST FIST			
				Tany Cunt	(specify)	וכט דוטו			
3.10 Revenue	generated thro	ough consultancy	Rs. 3.5	lakhs					
3.11 No. of cor	nferences org	anized by the Inst	itution						
T 1 5	T4 4° -		G ₄ 4	Timinomaides	College	Total Fund			
Level —	unternational	National	Niate	Iniversity					
	International	National 3	State -	University -	-	- Total Fullu			
Numbers ->	International -				- -	1,00,000			
		3	-	-	-	-			
Numbers ->		3 1.SERB - DST	-	-	-	1,00,000			
Numbers -> Sponsoring		3 1.SERB - DST 2.AICTE-FDP	-		-	1,00,000 7,00,000			
Numbers -> Sponsoring agencies	- - -	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere	- - nces -	- - -		1,00,000 7,00,000			
Numbers -> Sponsoring agencies 3.12 No. of fac	- - - culty served as	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers	nces	- - - - urce persons	11	- 1,00,000 7,00,000 1,00,000			
Numbers -> Sponsoring agencies	- - - culty served as	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere	nces	- - -	11	1,00,000 7,00,000			
Numbers -> Sponsoring agencies 3.12 No. of fac	- - - culty served as	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers	nces	- - - - urce persons	11	- 1,00,000 7,00,000 1,00,000			
Numbers -> Sponsoring agencies 3.12 No. of factors 3.13 No. of columns of columns of the colum	- - - culty served as	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers	nces	- - - - urce persons	11	- 1,00,000 7,00,000 1,00,000			
Numbers -> Sponsoring agencies 3.12 No. of factors 3.13 No. of columns of columns of the colum	- - - culty served as	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers	nces	- - - - urce persons	11	- 1,00,000 7,00,000 1,00,000			
Numbers -> Sponsoring agencies 3.12 No. of factors 3.13 No. of columns of columns of the colum	- - - culty served as	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers	nces - sons or resou	- - - - urce persons	11	- 1,00,000 7,00,000 1,00,000			
Numbers -> Sponsoring agencies 3.12 No. of fact 3.13 No. of col 3.14 No. of link	- culty served as llaborations kages created o	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers Internatio	onal 5	- - - - urce persons	11	- 1,00,000 7,00,000 1,00,000			
Numbers → Sponsoring agencies 3.12 No. of fact 3.13 No. of col 3.14 No. of link 3.15 Total bud	culty served as llaborations kages created of	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers	onal 5	- - - - arce persons National	11	- 1,00,000 7,00,000 1,00,000			
Numbers → Sponsoring agencies 3.12 No. of fact 3.13 No. of col 3.14 No. of link 3.15 Total bud	- culty served as llaborations kages created o	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers Internatio	onal 5	- - - - arce persons National	11	- 1,00,000 7,00,000 1,00,000			
Numbers → Sponsoring agencies 3.12 No. of fact 3.13 No. of col 3.14 No. of link 3.15 Total bud	culty served as llaborations kages created of	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers Internatio	onal 5	- - - - arce persons National	11	- 1,00,000 7,00,000 1,00,000			
Numbers → Sponsoring agencies 3.12 No. of fact 3.13 No. of col 3.14 No. of link From fund	culty served as llaborations kages created of the line agency	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers Internation during this year	onal 5	- - - - arce persons National	11	- 1,00,000 7,00,000 1,00,000			
Numbers → Sponsoring agencies 3.12 No. of fact 3.13 No. of col 3.14 No. of link From fund	culty served as llaborations kages created of the line agency	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers Internatio	onal 5	- - - - arce persons National	11	- 1,00,000 7,00,000 1,00,000			
Numbers → Sponsoring agencies 3.12 No. of fact 3.13 No. of col 3.14 No. of link From fund	culty served as llaborations kages created of the line agency	3 1.SERB - DST 2.AICTE-FDP 3.AICTE-Confere experts, chairpers Internation during this year	- - -	- - - - arce persons National		- 1,00,000 7,00,000 1,00,000			

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	3
INational	Granted	-
International	Applied	-
International	Granted	-
Commercialised	Applied	-
Commerciansed	Granted	-

3.17 No. of research awards/ recognitions received by faculty and research fellows of the institute in the year $\,$

	Total	International	National	State	University	District	College	
	-	-	1	-	-	-	-	
3.18 No. of faculty from the Institution								
Who	Who are Ph. D. Guides							
and	students	registered under	them	26				
3.19 No	3.19 No. of Ph.D. awarded by faculty from the Institution 2							
3.20 No	. of rese	arch scholars re	eceiving the	Fellow	ships (Newly	enrolled + e	existing ones)	
	JR	F 04	SRF _	Pr	oject Fellows	3 A	any other 11	
3.21 No	. of stud	ents participate	ed in NSS e	vents:				
			Unive	ersity lev	vel	State level	-	
			Natio	nal level	_	International	level _	
3.22 No	. of stud	lents participate	ed in NCC	events:				
			Unive	ersity le	vel _	State level	(02
			Natio	nal leve	-	Internationa	l level _	
		nsi and Cdt. B. J. r the academic ye		•	Best Cadets	award from	35-andhra Batta	ılion,
3.23 No	of Awa	ards won in NS	S:					
			Unive	ersity lev	rel _	State level	-	
			Nation	nal level	-	International	level _	

3.24 No. of Awards won in NCC

University level	-	State level	02
National level	-	International level	-

Cadet. N. Jhansi and Cadet. B. Jithendra Reddy (02) Best Cadets award from 35-andhra Battalion, Chittoor for the academic year 2016-2017.

SUO. N. Anand has selected for SSB screening at OTA, Kamptee, Maharashtra. Under Tirupati, Group. From AP.

3.25 No. of Extension activities organized

University forum	-	College forum	29		
NCC	-	NSS	-	Any other	-

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

MITS -NCC - 2016-2017

S.NO	NAME OF THE EVENT	DATE	PLACE
1	National Cadet Corps (NCC) Awareness Program	25 TH October 2016	MITS campus
2	National Cadet Corps (NCC) Selections	29th October 2016.	MITS campus
3	Rally on "Cashless Transactions"	13th December 2016.	Angallu, MITS
4	National Cadet Corps (NCC) Trekking Camp - 35 Andhra Battalion	29th January 2017.	Horsley Hills

Criterion - IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	28049 sqm	2871 sqm	Trust of Institute	-
Class rooms	74 (6090 sqm)	14 (138 sqm)	Trust of Institute	-
Laboratories	6133 sqm	1836 sqm	Trust of Institute	-
Seminar Halls	3	2	Trust of Institute	-
No. of important equipment purchased (≥ 1-0 lakh) during the current year.	-	-	-	-
Value of the equipment purchased during the year (Rs. in Lakhs)	-	148.03	Trust of Institute	-
Others	-	196.55	Trust of Institute	-

4.2 Computerization of administration and library

The central library has been automated with a library management system for enable easy retrieval, issue, and return of books and other reading material.

4.3 Library services:

	Existing		Newly added		,	Total
	No.	Value	No.	Value	No.	Value
Text Books	46,867	1,99,18,475	1181	5,31,450	48,048	2,04,49,925
Reference	7,924	33,67,700	150	67,500	8,074	34,35,200
Books						
e-Books	1,38,321		2086		1,40,407	
Journals +	115	3,50,000	15	32,000	130	3,82,000
Magazines						
e-Journals	4,812	15,25,570	-	-	4,812	15,25,570
Digital Database	5				5	
CD & Video	3,128	-	150	-	3,278	-
MEMBERSHIP	DELNET,	20,000	-	-	20,000	-
	N-LIST,					
	NDL					
NPTEL	YES	-	-	-	YES	-

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsin g Centres	Computer Centres	Office	Departments	Others
Existing	1006		100 MBPS					
Added	150	8	260 MBPS	1	08	28	68	29
Total	1156		360 MBPS					

4.5 Computer, Internet access, training to teachers and students and any other programme for technology up gradation (Networking, e-Governance etc.)

- Workshop on Teradata University Network Resources for Business Analytics Research & Teaching was organized on 20th June 2017.
- Moodle Training program for Engineering Staff and Students every year from 2014 onwards
- An Awareness Program titled "Hacker Earth Online Programming Challenge" was conducted on 21st Jan 2017 by Mr. Sachin and Ms. Shruthi – Program Managers from Hackerearth. Mrs S. Kusuma, Assistant Professor, Department of CSE was the coordinator.
- A Three-day guest lecture on titled as "Computer Networks" by Mr. G. Tirumala Rao, the Former Scientist of ISRO, Vishakapatnam was conducted from 23 Jan 2017 to 25 Jan 2017. Dr V Thiruppathy Kesavan, Senior Assistant Professor, Department of CSE was the coordinator

4.6 Amount spent on maintenance in lakhs:

(i)	ICT (Inclusive of I and ii)	617400	
(ii)	Campus infrastructure and facilities	35564565	
(iii)	Equipment	268265	
(iv)	Others	-	
	Total:	9 95 665 00	(Annrovingatoly)

(Software, Projectors, UPS, Replace Batteries, Microsoft Campus License agreement, Fortinet, Renewal, Bio-Matrix (Vidyawaan), Systems, Laptops)

Criterion - V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

IQAC has set up a separate cell for student counselling with a full-time coordinator.

The IQAC has set up a separate cell for women empowerment with a faculty as chief coordinator.

The cell looks into women specific issues and sensitizes both male and female students about how they conduct themselves in formal and informal settings. Additionally, the cell takes up grievances of the women students.

5.2 Efforts made by the institution for tracking the progression

The IQAC has instituted mentorship program for the students to guide, advice and suggest students on career choices, socio economic issues, and psychological issues. It not only prepares students for the real world exposure but also to face challenges in real lives.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
5071	434	4	0

(b) No. of students outside the state

03

(c) No. of international students

05

Men

No	%	
04	80	

Women

No	%
1	20

Last Year					This Year						
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OB C	Physically Challenged	Total
645	120	18	700	0	1483	610	84	23	610	0	1259

Demand ratio

100%

Dropout

Less than 2 %

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

- The requirements of the various competitive examinations are embedded in the curriculum. Examination pattern includes multiple choice questions similar to the ones found in the competitive exams.
- Students are given training on aptitude such as logical reasoning, quantitative, communication through mandatory personality development course.
- GATE awareness workshop conducted by ACE, Hyderabad
- Career Guidance and CAT awareness workshop conducted by Career Launcher

No. of student beneficiaries 950

5.5 No. of students qualified in these examinations

NET - SET/SLET - GATE 04 CAT - IAS/IPS etc. - State PSC - UPSC - Others 13

5.6 Details of student counselling and career guidance

For every 20 students a faculty is allotted as mentor, who does counselling on diverse issues of students. The placement and training cell identifies the competencies of the students and motivates them to take up profession that best suit them and offers challenges. Thereby serving the larger objective of getting good placement offers is achieved.

No. of students benefitted 250

5.7 Details of campus placement

	Off Campus		
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
90	900	762	100

5.8 Details of gender sensitization programmes

Programmes conducted by Internal Complaint Committee (ICC) for July 2016- June 2017

- 1. Personality Development program conducted by Dr. G. Hampamma, Vice-Principal Administration for I B.Tech. Girl students on 01 November 2016.
- 2. Swasakthi: Empowering women was conducted on 20 Oct, 2016 for all girls' students in association with Madanapalle rotary club.
- 3. Dr. Geetha Devi, Asst. Prof, Dept. of Management Studies along with 3 students (P. Bhavana MBA, K.V. Manasa ECE, M. Aliya CSE) had an opportunity to participate in the National Women's Parliament held at Amravati during Feb 10-12, 2017. National Women's Parliament was organized by the Andhra Pradesh Legislative Assembly in association with MAEER's MIT School of Governance at Pavithra Sangamam in Amravati, Andhra Pradesh with an aim to empower women. It was a three-day conclave that began on February 10, 2017 and was based on the theme: 'Empowering Women Strengthening Democracy'.
- 4. A session on the theme: 'Empowering Women Strengthening Democracy' was organized by ICC on 2nd March 2017 for the women staff and students to deliberate on enlightenment, empowerment and involvement of women in decision making processes.
- 5. MITS ICC celebrated Women's day for girl students & lady staff members on 8th Mar 2017 at 4:00 PM in the Main Seminar Hall and discussed about the role of women in the society.

5.9	5.9 Students Activities								
	5.9.1	No. of students participated in sports, games and other events							
		State/ University level - National level - International level -							
No	. of stud	ents participated in cultural events							
		State/ University level 1 National level - International level -							
	5.9.2	No. of medals /awards won by students in Sports, Games and other events							
	Sports:	State/ University level _ National level _ International level _							
	Cultura	l: State/ University level - National level - International level -							

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	58	Rs 10,62,150
Financial support from government	2695	Rs 11,00,75,000
Financial support from other sources	255	Rs 82,08,500
Number of students who received International/ National recognitions	10	\$ 9400

5.11 Student organised / initiative	ves	
Fairs : State/ University level	- National level - International level -	
Exhibition: State/ University level	_ National level 4 International level _	_
5.12 No. of social initiatives und	ertaken by the students 29	
5.13 Major grievances of students	(if any) redressed:01	

Criterion - VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

<u>Vision:</u> Become a globally recognized research and academic institution and thereby contribute to technological and socio-economic development of the nation.

<u>Mission:</u> 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 to create an ambience for practice-based learning to the youth for success in their careers.

6.2 Does the Institution have a management Information System

Yes, the institute has Institute Management System (IMS). MITS-IMS is an integrated system consists of sixteen modules for all types of institutional activities like, semester, students, staff, exam, attendance, internal assessment activities etc.

It's a public IP. Can be accessed using <u>www.mitsims.in</u> Different logins are available for staff, student, parent and admission department.

The highlight of the important modules are as follows:

- 1. **Dashboard and Reports** Provides a summary view of students' attendance, internal assessment, timetable etc. for each department. Additionally, various reports such as course wise and section wise attendance and academic reports can be generated.
- 2. **Students** Students information, profile, academic activities and performance related details can be viewed and saved.
- Faculty Data department wise faculty details along with access permission for each
 faculty can be set. This module allows the college administration to track faculty
 activities.
- 4. **Admission Process** -This module enables admission of students to specific courses for both UG and PG. The module includes fee details such as paid up fee, balance remaining and fee exemption.
- 5. **Semester Activities** enables core part of academic activities such as creation of classes, sections, scheduling the semesters, posting of attendance, adding students, time table allocations, class substitutions etc.
- 6. **Pre-Examination** This module enables performance of pre-examination activities.
- 7. **Post-Examination** enables evaluation of answer scripts, posting of marks, results publication, etc.
- 8. **Fee Management** enables the management of students' admissions through inclusion of academic and other background details. Generating, modifying, and cancelling fee receipt are done using this module.
- 9. **Administration** To manage administration of academic activities such as course allocations, faculty profiles, faculty achievements, leave management etc.
- 10. **Feedback** -To manage mentor and mentee activities and meeting details, students' feedback for faculty.

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

- Being a member in IUCEE Consortium the faculty members are encouraged to attend the webinars to update their knowledge on latest curriculum trends.
- To update the subject knowledge, faculty members are encouraged to go to the renowned institutions like IITS, NITs, etc. for conferences, workshops to gain awareness on curriculum.
- Periodically IQAC team visits each department and discuss the curriculum related aspects and provides further know how on designing curriculum by conducting special programs with collaboration of industry.
- CBCS has been incorporated in curriculum to provide flexibility in learning process. Further Industry Institute Interaction Cell (IIIC), Entrepreneur Cell, and Siemen's Labs provide hands on industrial exposure.
- In collaboration with APSSDC a special focus on skill development has been initiated for faculty to enhance curriculum design.
- Experts from NITs, IITS and other reputed institutions are invited to provide their valuable suggestions and guidance during BOS meetings.
- In preparation for R-18 Syllabus each department has chosen 5 national and international institutional syllabi as reference while preparing curriculum and syllabi.
- Discipline electives offered are framed in accordance with the emerging technologies.

6.3.2 Teaching and Learning

- To enhance interdisciplinary engineering skills, APSSDC provides a platform for students to update their technical skill set by collaboratively conducting seminars, workshops etc.
- Peer to peer learning through UIF programs (Stanford University) for students
- IUCEE Consortium membership enables the institution to encourage faculty to attend the webinars to update and enhance their knowledge and skills.
- Improvement in teaching and learning is achieved by encouraging faculty members to participate in conferences & workshops organized by IITS, NITs, etc.
- IQAC audits helps in identifying problems faced by departments and formulating solutions for them.
- While the CBCS provides flexibility in learning process, the Industry Institute Interaction Cell, the Entrepreneurship Development Cell, and the Siemen's skill enhancement Labs provide hands on industrial standard training.
- Emphasis of skill development in collaboration with APSSDC is given.
- Modern ICT facilities are utilized to enhance the class room learning in an intensive manner.
- Many of the class rooms are equipped with audio systems to facilitate lectures delivered by reputed IIT/IISC professors to MITS students.
- Most of the faculty have PhDs from NITs and IITs and other reputed institutes, which helps to enhance academic and learning culture and to adopt best practices into the campus.
- Fully equipped central library is catering to the reference needs of the students
- All the department labs and libraries are functioning from 8 AM to 8 PM to facilitate extended times required by students.
- All lecture notes and materials are uploaded on the MOODLE platform wherein students have access through logins at any time.
- Students are encouraged to do innovative projects under the guidance of faculty for better learning through participation at national / international level events / competitions.

6.3.3 Examination and Evaluation

- To ease the filling up of examination registration forms, online registration process is implemented from 2017 batch onwards. Students can register themselves for end semester examinations by filling online applications and they can even download the hall tickets from their login credentials.
- Plagiarism check is made mandatory for submitting the project reports.
- Post Examination Moderation any discrepancies such as out of syllabus, mistakes
 in given questions are brought to the notice of the examination department by
 concerned Head of the Department within three days of the end semester examination.
 The principal appoints a committee to look into the issue and provide
 recommendations for resolving the same.

6.3.4 Research and Development

- The institute has a dedicated Research and Development (R &D) cell that acts as focal point for all R & D related activities such as writing proposals, applying to funding agencies, and publication of research findings in peer reviewed journals. Further, the R & D cell disseminates information about workshops, conferences, and faculty development programs to enable timely registration for them. Moreover, the R & D cell conducts weekly lectures by faculty on the areas of their research to enable sharing of ideas.
- The institute has Ph. D programs in all disciplines and the progress of students are monitored by the R & D cell through periodic reviews in line with JNTUA norms thereby ensuring successful completion of Ph. D program by the students.
- The institute has many ongoing and completed funded projects. These projects are monitored
 and coordinated by the R & D cell. Apart from these the institute supports projects from its
 corpus funds. The institute helps in the filing of patents and incentives are provided for
 successful patents.
- The institute provides incentives for publication in peer reviewed journals, obtaining funded projects, and sponsorship for participating in international and national conferences.
- The faculty are provided with additional facilities such as newspaper, mobile sim cards (bundled with Wi-Fi). The institute subscribes to several online libraries to enable faculty to access journal papers to keep pace with state of the art research trends across globe.

6.3.5 Library, ICT and physical infrastructure / instrumentation

- Wi-Fi enabled campus.
- Complete automation of the library
- Integrated library management software (soul 2.0)
- Seven databases of online journals IEEE, Springer, ASME N-List, DELNET, F. J-Gate, Science Direct, National Print Journals, Inter Library Loan (DELNET)
- Computerization of all transactions in library
- RFID implementation is in progress
- License SOUL (Software for University Libraries) Software
- Enhanced issue of books from two numbers to four numbers of books to each student.
- Reprography service is available at institute.
- 1920 text books purchased for the year 2016-2017, at a total cost of Rs. 8,21,282.
- IEEE, ASME, Springer, J-Gate, E-Journals subscribed for the year 2017. Total cost of the E-Journals subscription is Rs. 12,74,089.
- 102 print journals are subscribed for the year 2017. Total annual subscription is at about Rs. 2,26,138.
- ICT & Physical Infrastructure / Instrumentation:
 - Electronic surface table for discussions
 - o Two conference halls are equipped with video conference facility
 - ACS & ECS data base addition
 - Magzter online magazines addition
 - o Library operations have been digitalized
 - Renewal through OPAC
- Library Advisory Committee carries out periodic review for ensuring availability of books, procurement of new books, and smooth functioning of library.
- All classrooms are equipped with LCD projectors and a few other class rooms are
 equipped with audio systems too. A scale up class room equipped with smart boards
 has been set up with the objective of flipped class room methodology
- 3 language laboratories are equipped with language software/ application
- Institution of book bank scheme for socially under privileged students.

6.3.6 Human Resource Management

- A dedicated HR department takes care of recruitment, appointment and career enhancement
- Clearly laid down policy for recruitment and growth
- Faculty development as a continuous process
- Organization of in-house faculty development programs
- The institute is currently recruiting candidates with PhDs from premier Indian or foreign
 institutions. Additionally, the institute has adopted a policy to provide incentives for research
 work, publications and other significant academic works. To facilitate this, the institution has
 adopted flexitime.
- Further the institute has provided free internet connection at the institute premises and on individual phones. The institute also provides daily newspapers to faculty at their residences.

6.3.7 Faculty and Staff recruitment

The institute recruits faculty and staff through both traditional and non-traditional methods (Campus recruitments at premier institutions). The institute uses advertisements, word of mouth, and web-based methods for accepting application for various positions that become vacant or are created from time to time. The application/resume are scrutinized, and short-listed candidates are called for interview either over phone or email. An interview board comprising of senior subject matter experts, domain experts and the principal is constituted. The selection is done based on the score from the interview board. The interview board scores based on a scaled scoring sheet containing parameters relevant to the academic levels of candidates are used for final selection of the candidate.

6.3.8 Industry Interaction / Collaboration

The institute maintains a cordial relationship with corporate world to understand their requirements and strives to match the competency and skill levels by making appropriate changes to the curriculum/Syllabus. As a result of this, the institute has achieved the following

- 60 MoUs signed with various companies from diverse industries.
- Domain specific Experts are invited to participate in the boards of studies and their suggestions are discussed, understood, and incorporated in the syllabi. The final version of the syllabi is sent for their perusal and comments if any before approving for delivery execution.
- 45 industry/corporate executives from various levels and diverse industries have been recruited as adjunct faculty from time to time.
- 36 guest lectures were organized by inviting industry experts during 2016-17
- The internship is made mandatory under current Regulation (R14 / R16) for B. Tech, and all PG programs.

63	Q	Admi	iccion	of Stuc	lonte
	. 7	\boldsymbol{A}			16111

The admissions to the institution is done as per the JNTUA norms through counselling.	The
management quota seats are filled using institutional criteria.	

The institute is attracting quite a number of higher ranked students for admissions under management quota.

6.4	Welfare	schemes	for
-----	---------	---------	-----

Teaching	Yes
Non-teaching	Yes
Students	Yes

6.5 Total corpus fund generated

Rupees 4.67 Crore

6.6 Whether annual financial audit has been done

Yes	✓	No	

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type		External		Internal		
	Yes/No	Agency	Yes/No	Authority		
Academic	Yes	Senior faculty from other reputed institutions	Yes	Internal Quality assurance team		
Administrative	Yes	Senior faculty from other reputed institutions	Yes	Principal and dean administration		

6	& Does the	I Iniversity/	Autonomous	College declares	reculte within	30 days? *

For UG Programmes	Yes No 🗸
For PG Programmes	Yes No

^{*}The institute is endeavouring to publish results within 30 days in near future.

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

- 1. Engineering Graphics etc. are now tested using latest tools like AutoCAD, thus replacing the conventional methods by software based CAD methods for conducting examinations.
- 2. The examination system of institute follows double blind valuation procedure.
- 3. Plagiarism check is made mandatory for submitting the project thesis reports.
- 4. Students doing internships in industry are asked by examination department to submit projects and reports online for evaluation by faculty.
- 5. Post Examination Moderation After conduction of end semester examination, if any discrepancies like out of syllabus, mistakes in given questions are represented by the concerned HoD within three days, a committee appointed by the principal, shall look into the issue.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

At this point in time the institute is independent autonomous and does not have any affiliated/ Constituent colleges. Hence there is no scope for promoting autonomy.

6.11 Activities and support from the Alumni Association

The institute has a registered alumni association and the alumni association conducts annual meet every year. The alumni association distributes an e-newsletter, in which important aspects about the institute and the events taking place in the college find mention. One of the alumni is a member of the IQAC. It is endeavoured to have at least one Alumni on the board of studies.

6.12 Activities and support from the Parent – Teacher Association

At this point in time the institute does not have a registered parent teacher association but the phone number of the respective HoD and the class teacher are disseminated amongst the students there by creating scope of interaction between the faculty, the students, and the parents. Additionally, the students and parents are allowed to meet the principal or other administrators at designated hours daily. The students, parents, and teachers get an opportunity to get together during orientation programs, annual day, and during annual cultural festival.

6.13 Development programmes for support staff

- Staff who are interested in developing themselves are encouraged to contact the principal, or the HoD of the department for any training or skill upgradation they need.
- The staff are given routine trainings for handling labs / specific duties they perform.

6.14 Initiatives taken by the institution to make the campus eco-friendly

- 1. **Plantation:** The campus has plenty of plants of different species with drip irrigation facility. The electricity requirement of a substantial portion of the admin office is drawn from the solar power panels of 150 kW capacity installed on the terrace.
- 2. **Green Practices:** In a bid to minimize printing and the use of paper all official communications, circulars, and other instructions/discussion are conveyed through Emails.
- 3. **Minimum Prints:** Further, students are distributed ppts / course materials in soft through online logins to avoid print outs.
- 4. **STP:** It is proposed to treat the wastewater (sewage) collected from all the building to a tune of 50,000 litres at an estimated cost of Rs. 7.00 lakhs. The civil works are almost ready and the erection of machineries are being done. The plant will be put into operation shortly.
- 5. **Vermicomposting Yard:** The solid waste from canteen and mess are proposed to be collected from the respective places and proposed to treat them at vermicomposting plant sanctioned at a budget of Rs. 2.00 lakhs.
- 6. **Rain Water Harvesting System:** All the buildings are proposed to collect the rain water from the respective building and proposed to transfer the water through 110 mm and 160 mm PVC pipes to a pond of 53.12 lakhs litres capacity. Two more rain water harvesting tanks with 2.0 lakhs litres and 2.75 lakhs litres capacity are available inside the campus.
- 7. **Check Dam:** Three check dams are available inside the campus with a capacity to hold 4.25 lakhs litres, 4.40 lakhs and 4.45 lakhs litres of water to transmit the surface runoff water to ground water aquifer facilitating the ground water table raise.
- 8. **Solid Waste Disposal:** The solid waste generated inside the campus is being collected daily and dumped in an earthen pit and is allowed to decompose naturally in an environmental friendly manner.
- 9. **E-waste:** Electronic waste are being collected and disposed through licensed vendors.
- 10. **Gardening and Landscaping:** Sufficient number of labours for gardening and landscaping are employed for developing gardening and landscaping to make the campus green. Fruit bearing, decorative flowering planted are grown all along the ways to various buildings help the students and staff to relax and enjoy natural environment.

Criterion - VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution.

Give details.

- The innovation centre is a common platform where the students, research scholars, researchers, field experts and industry personnel interact and work in partnership to encourage breakthroughs.
 A few of the actions of innovation centre include fusing the uncommon, taking risks and thinking big. Students, at the MITS campus, are motivated to actively participate in innovative and new technology transfers to industry for commercialization.
- 2. Flexi time for faculty and staff to encourage them to work as per their requirements. This has resulted in a more engaged faculty for research, publication, teaching-learning etc.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

The governing council has clarified the short-term goals for the next one year as follows:

- Funded projects, consultancies, and support from alumni to be enhanced.
- Developing MITS MOOCS courses will be an added benefit.
- Establishing centres of excellence in advanced technology will help research outcome.
- MITS cloud for e-learning and online courses may be provided for better results.

With the above objectives in mind MITS has initiated/executed the following:

- A full time Associate Director has been appointed to supervise, monitor, and strategize future course of research and development activities in the institute. The R & D cell has started disseminating information related to call for proposals from national funding agencies for projects, conferences, workshops, and FDPs. Additionally, the R & D cell is actively engaged in providing support to the faculty by organizing workshops for proposal writing and acting as an interface between the funding agency and the institute.
- The R & D cell manages time lines of projects by keeping the project supervisors informed about the various requirements of the funding agencies with reference to execution of projects.
- Faculty of the institute are encouraged to register for MOOCS courses and use the
 institutions facility for creation of MOOCS courses. Each department has a MOOCS
 coordinator who facilitates students to register for MOOCS courses. The coordinator
 also informs the other faculty in the department about the possible topics for creation
 of MOOCS courses.
- The institute provides incentives for patents, projects, and publications leading to a greater emphasis on these aspects of research and development.
- The institute has established a skill development lab in collaboration with APSSDC and Siemens India. The lab and the equipment are fully funded by these agencies. Efforts to establish more such centres is being encouraged amongst the departments.
- Provision of MITS cloud for e-learning is in early stage and in the coming days it is expected to become a full-fledged facility.

7.3 Give two Best Practices of the institution (please see the format in the NAAC Self-study Manuals)

Best Practice 1

Title of the practice: Students' Internship Abroad

Objective of the practice: The objective of the internship aboard program is to expose the students to the global corporate and academic environment. It is also expected to sensitize the students about the requirements of the real world and enable them to prepare themselves in line with these requirements at global level.

Context: In the current globalized environment, the students are required not only to learn domain specific fundamentals but also keep track of the fast changing industrial, academic environment to understand the current and future needs. While the institute endeavours to update the curriculum in a cyclical manner (every four years for UG and every two years for PG courses) the changes taking place in the corporate sector are faster.

The practice:

- The institute uses its network to find internships in other countries.
- The students are selected based on their academic performance, interest and are inducted into these internships.
- The progress of the students is monitored, and relevant counselling is provided from time to time.
- The students are required to submit a project report on their completion of internship experience.

Evidence of success:

University Innovation Fellowship (UIF) Program in collaboration with Stanford University, USA

- 1. The University Innovation Program has so far benefited 16 students, largest number of students from a single college / institute in India.
- 2. The students visited Silicon Valley which was first-hand experience in hardware companies and visiting USA on the expense of Google and Stanford was benefit.
- 3. Currently, a few of these students are pursuing higher education and a few others have started their own company.
- 4. Students achievements indicate the usefulness of UIF program.

Faculty Contribution:

All departmental mentors of students have guided them to successfully compete at international level and qualify for the prestigious fellowship.

Problems Encountered:

- Guiding students to compete at international level for the internship has been a challenge.
- Student found it bit difficult to travel and manage themselves, especially if they travelled first time abroad.
- Communication with foreign accent was another challenge at times for a few of the students.

Best practice 2

Title of the practice: Health and Fitness Through Yoga

Objectives of the practice:

- To sensitize the students and faculty with the need for keeping themselves healthy and fit.
- To provide an opportunity for the students and faculty to learn and practice Yoga and meditation.
- To contribute to students' academic performance indirectly by having healthy body and mind.
- To engage students in extra-activities in order to have balance between studies and sports / recreation/ physical activities.
- This also keeps students' general health away from ailments.

Context:

Students tend to overlook health and fitness due to the pacey nature of their college routine. In this context, it is essential for the institution to sensitize them with the need for health and fitness. The Yoga provides an easy method of maintaining fitness levels. Additionally, there is no gainsaying the fact that a healthy mind and body will have a positive impact on their academic performance.

The practice:

- The time table includes a sport hour every alternate day and these are used to provided training and practice of Yoga
- Separate session for girl students, boys, faculty and staff are held under the supervision of trainers.
- Every month a Yoga day is organized to spread awareness of Yoga.

Evidence for success:

- The participation/engagement of students in yoga has been ever increasing.
- More and more students have been found to be taking interest in various forms of sports.
- Many students can be seen playing different sports after the college hours.
- Student participation in sports events organized at district level has improved.

Faculty Contribution:

- Extra-curriculum coordinator, Dr. K. V. V. Raju, promotes health awareness amongst students and faculty continuously.
- Faculty from several departments participate in yoga and meditation thereby inspiring students to participate.

• Dr. Shankarnath of Mechanical Engineering and Dr. Ch. Ramachandra Prasad of Industry Institute Interactions Cell actively participate and guide others to practice Yoga regularly.

Challenges:

- Student who are coming to college from far off places find it difficult to stay back for these activities due to time constraints.
- Some students have expressed their inability to manage sports with their academic and career priorities.

*Provide the details in annexure (annexure need to be numbered as i, ii, iii)

7.4 Contribution to environmental awareness / protection

The NSS has spread the message of Swatch Bharath, Tree Plantation, reducing wastage of electricity etc. through its volunteers to other students. The students of MITS have participated in skit and other such competition to enhance awareness among villagers about the significance of environment protection.

7.5 Whether environmental audit was conducted?	Yes	✓	No	

7.6 Any other relevant information the institution wishes to add. (For example SWOT Analysis)

Strengths:

- Well qualified and experienced faculty members with diversified specialization in streams of engineering and management.
- Good faculty retention ratio and staff student ratio
- Recognized as a Research Centre (RRC) by JNTUA, Ananthapuramu to offer Ph.D. programs.
- Well-equipped laboratories
- Among the total 382 faculty members on roll, there are 327 with Ph.D. as their highest qualification which makes 86%.
- Many faculty have long experience and industrial exposure.
- Located at calm, serene and environmental friendly place.
- Located reasonably close to Bangalore and Chennai for industrial/research approach.

Weaknesses:

- Quality of the incoming students is on average for considerable number of students.
- Big challenge in providing training for GRE, GATE, CAT, GMAT examinations.
- Industry interaction is to improve.
- Interaction with Alumni is also to improve.
- Communication skills of students is a challenge.
- Currently patent filing is limited, to improve further upon it.
- Entrepreneurship skills need to be developed among the students.

Opportunities:

- Up gradation of educational qualifications for both teaching and non-teaching staff members
- Starting new PG Courses by setting up dedicated research labs with latest equipment and facilities
- Encouraging the faculty and students to undertake funded project.
- Student and faculty exchange programs with national & international institutes and universities.
- Motivating the students to undertake multidisciplinary project.
- Mobilizing our alumni to support the institute in training the students for updating their skills as per the current scenario.

Threats:

- Educational competition
- Online education is becoming popular
- Demand for engineering education is on decline

8. Plans of institution for next year

- To increase the number of funded research projects
- To identify strategies for providing more placements to the outgoing students
- · To develop entrepreneurship skills among the students
- To update curriculum in line with current industry requirements
- International internships (2 to 3 months)
- Digital innovation
- Chief Ministers center of excellence for artificial intelligence

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Name Dr. R. Varadarajan	Ä	Name Dr. C. Yuvaraj
Signature of the Coordinator, IQAC		Signature of the Chairperson, IQAC
		PRINCIPAL Mediaspalle Institute of Technology & Scient
-	***	P.O. No: 14, Kadiri Road, Angallu

Annexure I

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR, <u>ANANTHAPURAMU</u>

ACADEMIC CALENDAR B. Tech IV Years - I Semester (2016-2017)

I Spell of Instructions:	27.06.2016 to 27.08.2016	(09 weeks)
I Mid-term Examinations: (I St Objective + I St descriptive)	29 08.2016 to 03.09.2016	(06 days)
II Spell of Instructions:	06.09.2016 to 04.11.2016	(08 weeks)
Il Mid-term Examinations: (2 nd Objective + 2 nd descriptive)	05.11.2016 to 11.11.2016	(06 days)
Preparation and Practicals:	14.11.2016 to 19.11.2016	(06 days)
End Examinations:	21.11.2016 to 03.12.2016	(02 weeks)
Commencement of Class Work for IV Year B. Tech II semesters	15.12.2016 (Thursd	ay)
Commencement of Class Work for II & III Years B. Tech - II semesters	26.12.2016 (Monda	ay)

Note:

- (i) The Mid-term Examinations should be conducted and completed as per the schedule given.
- (ii) All the midterm examinations shall be of both objective and descriptive type as per the academic regulations.
- (iii) All semester supplementary examinations will be conducted immediately after I semester regular and supplementary examinations

$\frac{\text{JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR}}{\text{ANANTHAPURAMU}}$

Academic Calendar B.Tech. IV Year II Semester (2016-2017)

First Unit of Instructions:	15.12.2016 to 02.02.2017	(07 weeks)
I Mid-term Examinations: (I St Objective + I St descriptive)	03.02.2017 to 04.02.2017	(02 days)
Project work	06.02.2017 to 04.03.2017	(04 weeks)
II Unit of Instructions:	06.03.2017 to 01.04.2017	(04 weeks)
II Mid-term Examinations, (2 nd Objective + 2 nd descriptive)	03.04.2017 to 04.04.2017	(02 days)
End Examinations.	10.04.2017 to 15.04.2017	(06 days)
Project Viva Voce Examinations:	17.04.2017 to 26.04.2017	(09 days)

Note

- (i) The Mid-term examinations should be conducted both in the morning (9:00AM to 11:00AM) and afternoon (3:00PM to 05:00PM) sessions and they should be completed as per the schedule given.
- (ii) All the midterm examinations shall be of both subjective and objective type as per the academic regulations.

ACADEMIC CALENDAR (2016-17) Applicable for MBA I Year I Semester

Sl. No.	Event	Date & Day		Number of Weeks
NO.		From	То	
1.	I Spell of Instruction	18/08/2016 Thursday	12/10/2016 Wednesday	8
2.	I Mid-Exam	1310/2016 Monday	15/10/2016 Saturday	3 days
3.	II Spell of Instruction	17/10/2016 Monday	17/12/2016 Saturday	9
4.	II Mid-Exam	19/12/2016 Monday	21/12/2016 Wednesday	3 days
5.	Practical Exam	22/12/2016 Monday	31/12/2016 Saturday	1 week 3 days
6.	End Exam	02/01/2017 Monday	16/01/2017 Saturday	2
7.	Reopening of II Semester	23/01/2017 Monday		

ACADEMIC CALENDAR (2016-17) Applicable for MBA I Year II Semester

Sl. No.	Event	Date & Day		Number of Weeks
		То	From	
1	I Spell of Instruction	23/01/2017 Monday	18/03/2017 Saturday	8
2	I Mid-Exam	20/03/2017 Monday	23/03/2017 Thursday	4 days
3	II Spell of Instruction	24/03/2017 Friday	25/05/2017 Thursday	9
4	II Mid-Exam	26/05/2017 Friday	30/05/2017 Tuesday	4 days
5	Practical Exam	31/05/2017 Wednesday	10/06/2017 Saturday	1 week 4 days
6	End Exam	12/06/2017 Monday	26/06/2017 Monday	2
7	Reopening of II year I semester	24/07/2017 Monday		

ACADEMIC CALENDAR (2016-17) MBA II Year - I Semester

Sl. No.	Academic Activity	Date & Day		No. of Weeks
		From	То	
1	I Spell of Instructions	04/07/2016 Monday	26/08/2016 Friday	8
2	Mid –Term Test-I	29/08/2016 Monday	03/09/2016 Saturday	1
3	II Spell of Instructions	06/09/2016 Tuesday	05/11/2016 Saturday	9
4	Mid –Term Test-II	07/11/2016 Monday	14/11/2016 Monday	1
5	Practical End Semester Exams	15/11/2016 Tuesday	19/11/2016 Saturday	1
6	Theory End Semester Exams	21/11/2016 Friday	08/12/2016 Thursday	3
7	Commencement of IV Semester	12-12-2016		

$\begin{array}{c} \mathsf{MADANAPALLE} \; \mathsf{INSTITUTE} \; \mathsf{OF} \; \mathsf{TECHNOLOGY} \; \& \; \mathsf{SCIENCE}, \\ \mathsf{MADANAPALLE} \\ \mathsf{(UGC} \; \mathsf{-AUTONOMOUS)} \end{array}$

ACADEMIC CALENDAR (2016-17) MBA II Year - II Semester

Sl.No.	Academic Activity	Date	Date & Day	
		From	То	
1	I Spell of Instructions	12/12/2016 Monday	31/12/2016 Saturday	3
2	Project Work	02/01/2017 Monday	04/02/2017 Saturday	5
3	I Spell of Instructions (cont)	06/02/2017 Monday	25/02/2017 Saturday	3
4	Mid –Term Test-I	27/02/2017 Monday	01/03/2017 Wednesday	1
5	Second Spell of Instructions	02/03/2017 Thursday	15/04/2017 Friday	6
6	Mid Term II	17/04/2017 Monday	19/04/2017 Wednesday	1
7	Practical End Semester Exams	20/04/2017 Thursday	27/04/2017 Thursday	1
8	Theory End Semester Exam	28/04/17 Friday	05/05/2017 Thursday	1

ACADEMIC CALENDAR (2016-17) Applicable for B. Tech I Year I Semester

Sl. No.	Event	Date	Number of Weeks	
		From	То	
1	Bridge course	11/07/2016 Monday	16/07/2016 Saturday	1
2	I Spell of Instruction	18/07/2016 Monday	10/09/2016 Saturday	8
3	I Mid-Exam	12/09/2016 Monday	17/09/2016 Saturday	1
4	II Spell of Instruction	19/09/2016 Monday	19/11/2016 Saturday	9
5	II Mid-Exam	21/11/2016 Monday	26/11/2016 Saturday	1
6	Practical Exam	28/11/2016 Monday	3/12/2016 Saturday	1
7	End Exam	5/12/2016 Monday	17/12/2016 Saturday	2
8	Vacation	19/12/2016 Saturday	31/12/2016 Saturday	2

ACADEMIC CALENDAR (2016-17) Applicable for B. Tech I Year II Semester

S1. No.	Event	Date & Day		Number of Weeks
		То	From	
1	I Spell of Instruction	2/01/2017 Monday	25/02/2017 Saturday	8
2	I Mid-Exam	27/02/2017 Monday	04/03/2017 Saturday	1
3	II Spell of Instruction	06/03/2017 Monday	06/05/2017 Saturday	9
4	II Mid-Exam	08/05/2017 Monday	13/05/2017 Saturday	1
5	Practical Exam	15/05/2017 Monday	20/05/2017 Saturday	1
6	End Exam	22/05/2017 Monday	03/06/2017 Saturday	2
7	Reopening of II year I semester	03/07/2017 Monday		

ACADEMIC CALENDAR (2016-17) B. Tech II &III Years - I Semester

Sl.No.	Academic Activity	Date & Day		No. of Weeks
		From	То	
1	I Spell of Instructions	04/07/2016 Monday	26/08/2016 Friday	8
2	Mid –Term Test-I	29/08/2016 Monday	03/09/2016 Saturday	1
3	II Spell of Instructions	06/09/2016 Tuesday	05/11/2016 Saturday	9
4	Mid –Term Test-II	07/11/2016 Monday	14/11/2016 Monday	1
5	Practical End Semester Exams	15/11/2016 Tuesday	19/11/2016 Saturday	1
6	Theory End Semester Exams	21/11/2016 Friday	08/12/2016 Thursday	3
7	Vacation	09/12/2016 Friday	18/12/2016 Sunday	2

$\begin{array}{c} \mathsf{MADANAPALLE} \; \mathsf{INSTITUTE} \; \mathsf{OF} \; \mathsf{TECHNOLOGY} \; \& \; \mathsf{SCIENCE}, \\ \mathsf{MADANAPALLE} \\ \mathsf{(UGC} \; \mathsf{-AUTONOMOUS)} \end{array}$

ACADEMIC CALENDAR 2016-17 B. Tech II &III Years - II Semester

Sl.No.	Academic Activity	Date & Day		No. of Weeks
		From	То	
1	I Spell of Instructions	12/12/2016 Monday	31/12/2016 Friday	3
2	Project Work	02-01-2017 Monday	04-02-2017 Saturday	5
3	I Spell of Instructions (Contd)	06-02-2017 Monday	25-02-2017 Saturday	3
2	Mid –Term Test-I	27/02/2017 Monday	01/03/2017 Wednesday	3 Days
3	II Spell of Instructions	02/03/2017 Thursday	15/04/2017 Friday	6
4	Mid –Term Test-II	17/04/2017 Monday	19/04/2017 Wednesday	3 days
5	Practical End Semester Exams	20/04/2017 Thursday	27/04/2017 Thursday	1
6	Theory End Semester Exams	28/04/2017 Friday	05/05/2017 Thursday	1

ACADEMIC CALENDAR (2016-17) MCA II & III Years - I Semester

Sl. No.	Academic Activity	Date & Day		No. of Weeks
		From	То	
1.	I Spell of Instructions	04/07/2016 Monday	26/08/2016 Friday	8
2.	Mid –Term Test-I	29/08/2016 Monday	03/09/2016 Saturday	1
3.	II Spell of Instructions	06/09/2016 Tuesday	05/11/2016 Saturday	9
4.	Mid –Term Test-II	07/11/2016 Monday	14/11/2016 Monday	1
5.	Practical End Semester Exams	15/11/2016 Tuesday	25/11/2016 Friday	2
6.	Theory End Semester Exams	28/11/2016 Monday	09/12/2016 Friday	2
7.	Vacation	12/12/2016 Monday	18/12/2016 Sunday	1

ACADEMIC CALENDAR (2016-17) MCA II &III Years - II Semester

Sl. No.	Academic Activity	Date & Day		No. of Weeks
		From	То	
1.	I Spell of Instructions	19/12/2016 Monday	10/02/2016 Friday	8
2.	Mid –Term Test-I	13/02/2017 Monday	18/02/2017 Saturday	1
3.	II Spell of Instructions	20/02/2017 Monday	21/04/2017 Friday	9
4.	Mid –Term Test-II	24/04/2017 Monday	29/04/2017 Saturday	1
5.	Practical End Semester Exams	01/05/2017 Monday	06/05/2017 Saturday	1
6.	Theory End Semester Exams	08/05/2017 Monday	20/05/2017 Saturday	2
7.	Project Viva-Voce	22/05/2017 Monday	01/06/2017 Thursday	2
8.	Vacation	02/06/2017 Friday	02/07/2017 Sunday	4

General Holidays for the Academic Year :: 2016-17

Date	Occasion/Festival	Day
06.07.2016	Ramzan	Wednesday
15.08.2016	Independence Day	Monday
25.08.2016	Sri Krishna Astami	Thursday
05.09.2016	Vinayaka Chavithi	Monday
12.09.2016	Bakrid (Id-Ul-Azha)	Monday
11.10.2016	Vijaya Dasami	Tuesday
12.10.2016	Moharam	Wednesday
12.12.2016	Eid Miladun Nabi	Monday
13.01.2017	Bhogi	Friday
26.01.2017	Republic Day	Thursday
24.02.2017	Maha Sivaratri	Friday
29.03.2017	Ugadi	Wednesday
05.04.2017	Sri Ramanavami / Babu Jagjeevan Ram's Jayanthi	Wednesday
14.04.2017	Good Friday / Dr. B. R. Ambedkar's Jayanthi	Friday
26.06.2017	Ramzan (Id-Ul-Fitr)	Monday

Annexure II

Feedback analysis from stakeholders

The college collects and analyses feedback from stakeholders such as alumni, parents, students, and employers through a formal process. The salient points extracted from the analysis reports are as follows:

Alumni:

- Alumni have often expressed happiness with the academic ambience provided by the management and faculty at MITS.
- Alumni have supported CBCS based curriculum and the concept of open electives introduced in the
 curriculum. These provide opportunities to students to have diversified domains and areas of studies
 which in turn helps career choices.
- The alumni also expressed their satisfaction for the inclusion of industry relevant curriculum and research oriented topics in the syllabi.

Employer:

- Employers have general opinion about MITS students to be hardworking and committed to their work responsibilities.
- Companies employing MITS students have satisfactory opinion on technical strengths of students.
- Many of employers have found that the retention rate of MITS students is comparatively better.
- A few companies have felt that communication skills of MITS students need to be improved.
- A few other companies have suggested that students can be trained in very recent and emerging domain which will increase placement opportunities.

Parents:

- Parents have expressed satisfaction for adequate infrastructure, laboratory and library facilities.
 Parents also felt that faculty on the campus are very helpful to students. Parents have expressed that their wards would be placed suitably in relevant organizations.
- Parents felt satisfied with IMS system available at MITS. They become aware of their wards attendance and regularity to the college premises as regular SMS goes to parents through IMS.
- Some Parents have requested to intimate periodic progress of their wards. This would enable them to be aware of their wards progress in academics.
- Parents have requested to arrange suitable training to improve the employability skills of budding engineers at MITS.
- Parents have requested to improve the English communication abilities of their wards since most of the students are from rural areas.

Students:

- The students have rated faculty through feedback mechanism that quality and diversity of faculty in terms of their qualification and experience are good.
- Most of the students have said that they are satisfied with the curriculum content and quality of teaching in general.
- Some students are of the feeling that it would be better if faculty could demonstrate concepts with real life examples.

Abbreviations:

CAS - Career Advanced Scheme

CAT - Common Admission Test

CBCS - Choice Based Credit System

CE - Centre for Excellence

COP - Career Oriented Programme

CPE - College with Potential for Excellence

DPE - Department with Potential for Excellence

GATE - Graduate Aptitude Test

NET - National Eligibility Test

PEI - Physical Education Institution

SAP - Special Assistance Programme

SF - Self Financing

SLET - State Level Eligibility Test

TEI - Teacher Education Institution

UPE - University with Potential Excellence

UPSC - Union Public Service Commission
