## THE ANNUAL QUALITY ASSURANCE REPORT

# (AQAR)

## for the A.Y. 2016 – 17



#### 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 - A1. Details of the Institution 1.1 Name of the Institution MLR Institute of Technology Laxman Reddy Avenue, Dundigal 1.2 Address Line 1 Gandimysamma-Dundigal (M), Medchal (Dist) Address Line 2 Hyderabad City/Town **TELANGANA** State 500043 Pin Code director@mlrinstitutions.ac.in Institution e-mail address 08418-204066/08418-204088 Contact Nos. Name of the Head of the Institution: **Dr.P.Bhaskara Reddy** 

08418-204145

Tel. No. with STD Code:

Mobile:

Name of the IQAC Co-ordinator:

Mobile:

IQAC e-mail address:

1.3 NAAC Track ID (For ex. MHCOGN 18879)

1.4 NAAC Executive Committee No. & Date:

(For Example EC/32/A&A/143 dated 3-5-2004. This EC no. is available in the right corner-bottom of your institution's Accreditation Certificate)

1.5 Website address:

Web-link of the AQAR: For ex. http://www.ladykeane college.edu.in/AQAR2012-13.doc 1.6 Accreditation Details

1.7 Date of Establishment of IQAC :

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

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)

2016-17

www.mlrinstitutions.ac.in

http://www.mlrinstitutions.ac.in/sites/default/ files/AQAR-2016-17.pdf

EC(SC)/16/A&A/11.1 Date: July 11, 2016

9949810842

Prof.K.L.Chugh

9866666601

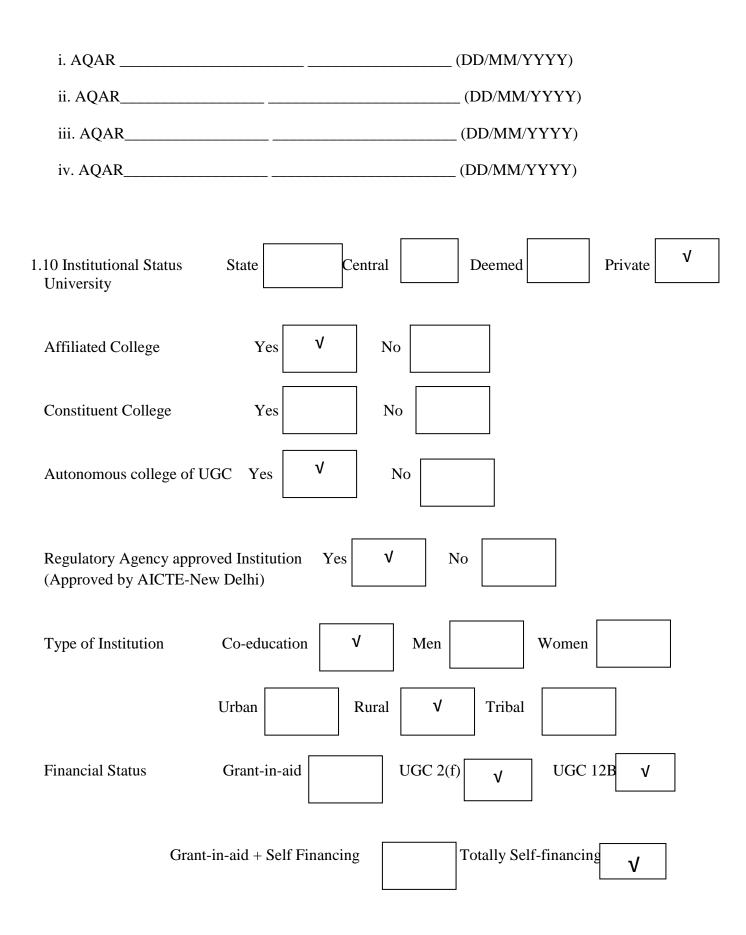
kl\_chugh@hotmail.com

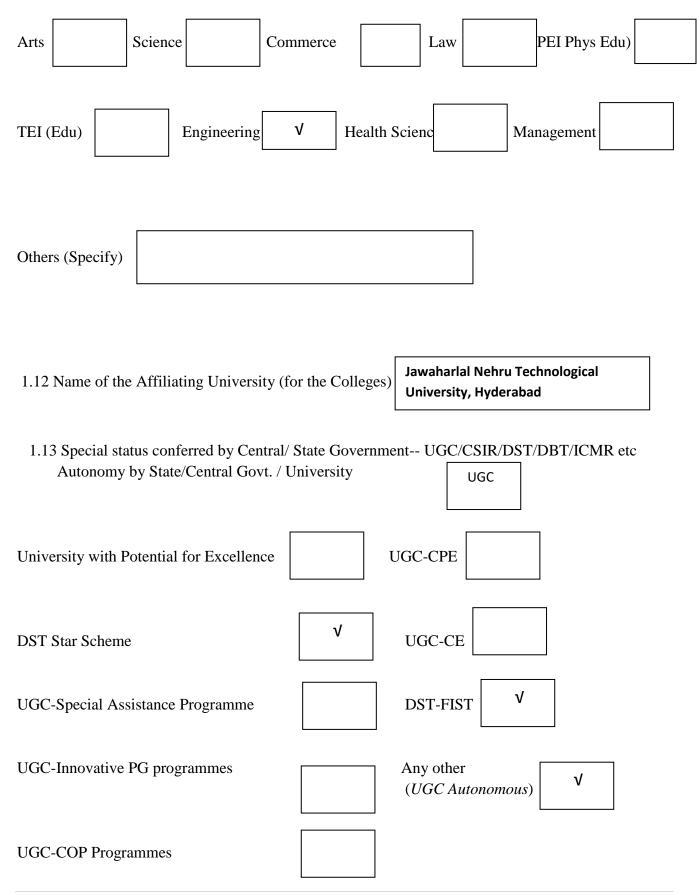
**TSCOGN26186** 

Sl. No. CGPA Year of Validity Period Cycle Grade Accreditation 1<sup>st</sup> Cycle Α 3.12 2016 11-07-2016 to 10-07-2021 1 2<sup>nd</sup> Cycle 2 3<sup>rd</sup> Cycle 3 4<sup>th</sup> Cycle 4

30/08/2016

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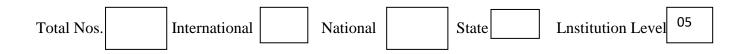
2. IQAC Composition and Activities

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2.1 No. of Teachers	05	]	
2.2 No. of Administrative/Technical staff	03		
2.3 No. of students	01	]	
2.4 No. of Management representatives	01	]	
2.5 No. of Alumni	01	]	
2. 6 No. of any other stakeholder and Community representatives	01		
2.7 No. of Employers/ Industrialists	01	]	
2.8 No. of other External Experts	01		
2.9 Total No. of members	14		
2.10 No. of IQAC meetings held	04		
2.11 No. of meetings with various stakeholder	rs: No. 06	Faculty	04

Non-Teaching Staff Students	01	Alumni	01	Others	-	-
2.12 Has IQAC received any f	unding from	UGC during	g the year?		No	V
If yes, mention the amount			]			

## 2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC



(ii) Themes

- 1 To improve the Teaching-Learning process for the I-Year subjects with emphasis on better results like Data Structure (DS), Engineering Mechanics (EM) and Engineering Drawing (ED).
- 2 To promote Active Learning strategies with an aim to shift learning from Teacher-Centric to Student-Centric.
- 3 To encourage the faculty to publish papers in quality journals indexed in Scopus and Web of Sciences (WoS) by implementing Research Incentive Schemes.
- 4 To motivate the faculty for better performance in executing the curriculum by introducing Performance Based Incentive (PBI).
- 5 To provide flexible learning by introducing MOOCs courses as per the direction of AICTE, New Delhi under SWAYAM Scheme.

2.14 Significant Activities and contributions made by IQAC

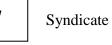
IQAC has taken a number of initiatives for quality enhancement in the Teaching-learning process by conducting theme based workshops / symposia as given in 2.13 (ii) above. Further, a number of innovative and best practices have been included in the curriculum to make the teaching learning more interesting and effective.

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

Plan of Action	Achievements
ToconductIUCEEInternationalEngineeringEducatorCertifiedProgramme (IEECP)	Nine faculties have completed all the phases of the programme and awarded IUCEE, IEECP certification. Further, 24 faculty have completed the phase I of IUCEE IEECP programme. The IEECP programme deals with imparting knowledge on Active Learning Strategies and is conducted by IUCEE
To conduct workshop for faculty to introduce Active Learning in the Class room teaching	Faculty of Depts. of CSE, IT, ECE, Mech, Aero and H&S have been trained to implement Active Learning in the curriculum. The FDP for all the faculty was conducted by the nine IUCEE IEECP certified faculty
To organize Research Methodology workshop with an aim to improve the quality of research work	The workshop was conducted from 19th to 24th June 2017. The resource persons included Dr. V.Ganeshan Emeritus processor, IIT Madras, Dr. Srinivas Rao, Scientist RCI, Hyderabad and other eminent experts. 30 faculty of Aero / Mech department participated in the workshop
Workshop on Impact of Teachers effectiveness on students achievement	The workshop was conducted by Prof ML Sai Kumar, IPE on 16-17 Nov. 2016. 30 faculty members attended the workshop
Workshop on "A positive Attitude- Transforming an average to good and Transforming an average to good and excellent teacher"	The workshop was conducted by Mr. Subha Raju Kalidindi on 3-4 June 2017. 40 faculty members attended the workshop
BEC training for English faculty of I-Year	Mr. Emanuel Raju, Cambridge Centre conducted the training sessions for 10 English faculties.

2.15 Whether the AQAR was placed in statutory body ٧ No Yes

AQAR for the A.Y 2016-17



Management reviewed the AQAR report and contributed valid suggestions. IQAC agreed and incorporated recommended suggestions.

#### $\operatorname{Part} - \operatorname{B}$

## **Criterion – I**

#### **<u>1. Curricular Aspects</u>**

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programme	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD				
PG	07		07	
UG	05		05	
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
Total	12		12	

Interdisciplinary		
Innovative		

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

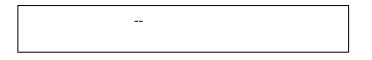
	Pattern	Number of programmes	
	Semester	UG - 05 PG - 07	
	Trimester		
	Annual		
1.3 Feedback fr (On all aspe	om stakeholders*Alumni V ects)	Parents ✓ Employers ✓	Students V

Mode of feedback :	Online	٧	Manual	٧	Co-operating schools (for PEI)	
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### \*Please provide an analysis of the feedback in the Annexure

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

- ➢ As a step towards to Choice Based Credit System (CBCS), open electives have been introduced in the existing curriculum of Regulation 2016.
- As per the requirement of industries and feedback of the stakeholders in the Board of Studies meeting, the curriculum and syllabi of individual programmes have been revised.
- 1.5 Any new Department/Centre introduced during the year. If yes, give details.



### Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent Associate Asst. Professors Others Total Professors Professors faculty 196 70 29 295 2.2 No. of permanent faculty with Ph.D. 34

2.3 No. of Faculty Positions

Recruited (R) and Vacant	Asst. Professors		Associate Professors		Professors		Others		Total	
(V) During the year	R	V	R	V	R	V	R	V	R	V
	76		21		7				104	
	76		21		7				104	

2.4 No. of Guest and Visitin	ng faculty and Temporary faculty   N	١i
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Nil	Nil

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	30	03	
Presented papers	25		
Resource Persons		6	

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

1. Implementation of Bloom's Taxonomy in the teaching curriculum.

2. Inclusion of concept based tutorial for GATE and core subjects to prepare the students for Competitive examinations.

3. Provision of animation video in the session planner to explain difficult concept in the class.

4. Adoption of Active Learning strategies to shift focus from Teacher-Centric learning to Student-Centric learning.

5. Incorporation of ICT tools in the teaching-learning process.

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



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

Double Valuation and Online Multiple Choice

Bar Coding,

2.9 No. of faculty members involved in curriculum Restructuring / revision/syllabus development

as member of Board of Study/Faculty/Curriculum Development workshop

2.10 Average percentage of attendance of students

Title of the Programme		Total no. of students	Division					
		appeared	Distinction %	I %	II %	III %	Pass %	
	Aeronautical Engg	69	7.25	43.48	5.8			
	Computer Science & Engg.	192	11.46	51.56	13.54			
	Electronics & Communications Engg.	182	16.48	49.45	5.49			
B.Tech	Information Technology	45	6.66	42.22	8.88			
	Mechanical Engg	158	10.76	50.00	13.30			
	Aerospace Engg	34	85.3	14.7				
	CAD/CAM	20	80.00	20.00				
	CSE	14	85.7	14.28				
	Embedded Systems	19	94.73	5.26				
M.Tech	Digital Systems & Computer Electronics	07	100					
	Thermal Engg	06	83.33					
MBA	Master of Business Administration	24	4.16		8.33			

2.11 Course/Programme wise distribution of pass percentage:

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

IQAC coordinator verifies the Teaching & Learning process by applying the Outcome Based Faculty Assessment Model (OBFAM). OBFAM, an innovation in Teaching-Learning Process, has been designed at MLR Institute of Technology. The monthly assessment of each and every faculty in implementing the Teaching-Learning process defined in OBFAM is carried out by the IQAC coordinator. The model is based on five criterions. The application of five criterion and the outcomes of the assessment are highlighted in Table 1.



S. No.	Application Criteria	Parameter	Outcomes
1	Criteria I	Average Class Student presence in the month > 65%	<ol> <li>Improvement in Teaching Standard</li> <li>Decrease in detention due to improvement in class attendance</li> </ol>
2	Criteria II (a)	Classes Planned / Conducted	<ol> <li>Coverage of syllabus as per session planner</li> <li>Uniform coverage of syllabus neither slow nor fast</li> <li>100% completion of scheduled classes as per time table</li> </ol>
3	Criteria II (b)	Session Planned / Conducted	<ol> <li>1. 130% increase in number of sessions per subject in the semester increased from 50-50 sessions to 65-70</li> <li>2. 100% completion of syllabus</li> </ol>
4	Criteria III	Course File completion including application of Bloom's Taxonomy	<ol> <li>Course File completed, updated and maintained as per the defined framework by 100% of the faculty</li> <li>Application of Bloom Taxonomy leads to in achieving course and program outcomes</li> <li>Improvement in problem solving ability due to the inclusion of GATE subjects</li> <li>Better understanding of core subjects due to the inclusion of micro projects as part of it</li> </ol>
5	Criteria IV (a)	Students Feedback – Online	1. Awareness to the faculty about their

			<ul> <li>strength and weakness</li> <li>based on students</li> <li>feedback online/oral taken</li> <li>every month.</li> <li>2. Improvements in</li> <li>faculty strengths.</li> <li>3. Provision of better</li> <li>faculty for core subjects.</li> </ul>
	Criteria IV (a)	Students Feedback – Online	
	Criteria IV (c)	Faculty Preparedness	
		Evaluation	1. Improvement in faculty preparedness before launching a unit for his/her subjects.
6	Criteria V (a)	Internal Duties	
			<ol> <li>Streamlining of procedure for the conduct of mini / main projects.</li> <li>Increase in the involvement of faculty in guiding the projects</li> </ol>
	Criteria V (b)	Admin Duties	
			<ol> <li>Improvement in students certification programmes / FDP / Workshops.</li> <li>Improvement in industry institute interaction.</li> <li>Improvement in co- curricular and extracurricular activities.</li> </ol>

# 2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	65
UGC – Faculty Improvement Programme	55
HRD programmes	05

Orientation programmes	05
Faculty exchange programme	00
Staff training conducted by the university	04
Staff training conducted by other institutions	14
Summer / Winter schools, Workshops, etc.	103
Others	21

## 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	40		12	
Technical Staff	55		22	

## **Criterion – III**

## 3. Research, Consultancy and Extension

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

A number of imitative have been taken by IQAC in promoting quality research work. The activities carried out during the A.Y.2016-17 are given below:

1. Setting up of a separate R&D Cell in the institution. All Ph.D faculties have been placed under the R&D Cell to enable them to contribute towards Research work.

2. Motivation to the faculty to publish quality papers in journals indexed in Scopus/WoS by giving them an amount equal to non class work 15% basic pay for months (Nov/Dec of the current academic year and May/Jun of the next academic year).

3. Incentive to the faculty to encourage them to carryout quality research work as per details given below.

 $\Box$   $\Box$  The college will reimburse the article processing charges for all the accepted research papers (if any) in both journal and conferences.

 $\square$  Research incentives are given to the faculty members who publish papers in Scopus/WoS indexed free journals (maximum of Rs.30,000/-)

 $\Box \Box 100\%$  fees reimbursement for conferences conducted in India. Also, TA & DA will also be paid.

4. A unique mentoring scheme has been introduced to accelerate the numbers of publications in quality journals. In this scheme, a mentor can have a team of mentees and achieve 50 points in publication of papers in a calendar year. Each paper published in journals indexed in Scopus is awarded 5 points. Each point is rewarded an amount of Rs.5000/-. As such, a mentor can each an amount of Rs.2.5 lakhs which he can share with his/her mentees. This scheme has resulted in a good number of publications in journals indexed in Scopus.

5. All the faculty members are encouraged to register for Ph.D in good universities (UGC Approved). The college will provide soft loan (maximum of Rs.50,000/-) to the faculty members to mitigate their financial needs for Ph.D programme such as fee, research work, publications etc. Facilities will also be given on duty in carrying out research work (maximum of 6 days during non-class work period).

#### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number		3	3	
Outlay in Rs. Lakhs		55.46	55.46	

#### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number				
Outlay in Rs. Lakhs				

#### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	9		
Non-Peer Review Journals			
e-Journals			
Conference proceedings	3		

3.5 Details on Impact factor of publications:

Range		Average		h-index	7	Nos. in SCOPUS	12	
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3.6 Research funds sanctioned and received from various funding agencies, industry and other organizations

Nature of the Project	Duration in Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	3	DST	55.46	5,00,000
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College				
Students research projects (other than compulsory by the University)				
Any other				
Total	3		55.46	5,00,000

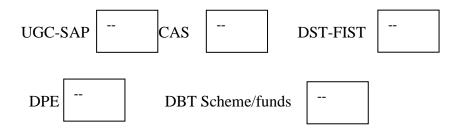
3.7 No. of books published i) With ISBN No.

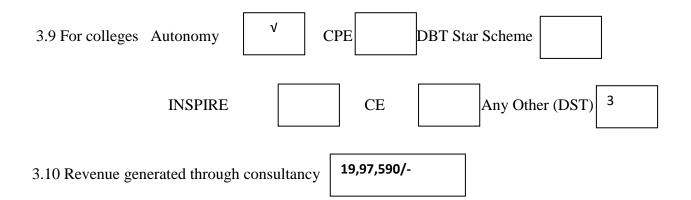
Chapters in Edited Books

10

ii) Without ISBN No.

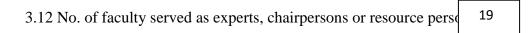
3.8 No. of University Departments receiving funds from





3.11 No. of conferences organized by the Institution

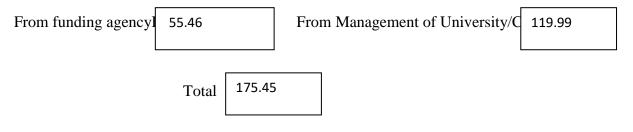
Level	International	National	State	University	College
Number	1	2	1		
Sponsoring agencies	SERB				



3.13 No. of collaborations: International	National	35	Any other	
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3.14 No. of linkages created during this year 35

3.15 Total budget for research for current year in lakhs:

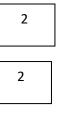


Type of Patent		Number
National	Applied	1
	Granted	-
International	Applied	-
	Granted	-
Commercialized	Applied	-
Commercianzed	Granted	-

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

Total	International	National	State	University	Dist	College
26		26				

3.18 No. of faculty from the Institution who are Ph. D. Guides and students registered under them

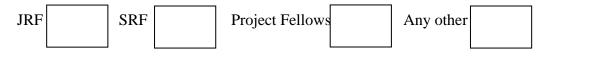


3.19 No. of Ph.D. awarded by faculty from the Institution

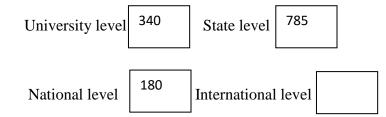
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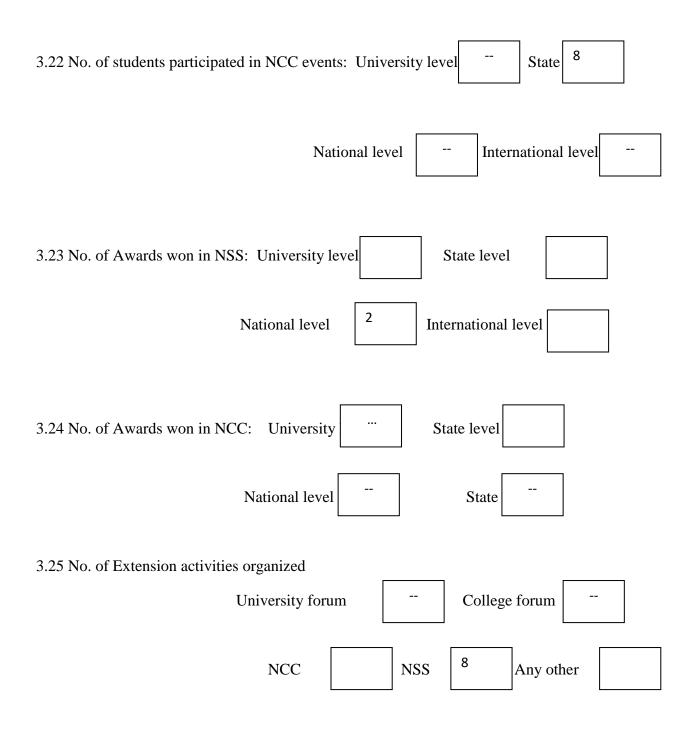
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3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)



3.21 No. of students Participated in NSS events:





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

- > Telanganaku Haritha haram by Govt.of telangana at college campus on 18<sup>th</sup> July 2016
- ▶ Blood Donation Camp on 06<sup>th</sup> December 2016
- Medical camp and free Medicine distribution at IDPL Gandhinagar and Bhagatsingh Nagar areas on 04<sup>th</sup> December 2016
- University Level Workshop On Cashless Transactions & Payments

- > National Youth seminar On occasion of Birth Anniversary of Swami Vivekananda on 17th January 2017
- Digital Financial Literacy Campaign from 12<sup>th</sup> Dec 2016 to 12<sup>th</sup> Jan 2017.
   Awareness program on "104 Satellite Launching" at 10 Different government schools on 17<sup>th</sup> February 2017
- > NSS-MLRIT volunteers participated in one week Residential special camp organized by JNTU, Hyderabad

# **Criterion – IV**

	Existing		New	ly added	Total		
	No.	Value	No.	Value	No.	Value	
Text Books	28171	6499562	1100	421300	29271	6920862	
Reference Books							
	2003	464883	209	79945	2212	544828	
e-Books	1030		180		1210		
Journals	1050	-	180	-	1210	-	
Journais	1071	2142184	225	470950	1296	2613134	
e-Journals							
	13851	2549363	1280	819710	15131	3369073	
Digital Database							
	11025	15000	-	5000	11025	20000	
CD & Video							
	2000	-	60	-	2060	-	
Others(NPTEL Videos)	10025		1000	-	11025	-	

# 4. Infrastructure and Learning Resources

# 4.4 Technology up gradation (overall)

	Total Computer s	Compute r Labs	Internet	Browsin g Centers	Compute r Centers	Offic e	Departmen ts	Others
Existin g	1338	41	100Mbp s	1	1	1	7	
Added	140	4						
Total	1478	45	100 Mbps	1	1	1	7	149 dispose d

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

Virtusa Polaris Informatica Centre, Big Data, Internet of Things, Mobile Application Development, EPICS

4.6 Amount spent on maintenance in lakhs

Total:	2,68,64,242/-
iv) Others	30,71,069/-
	[
iii) Equipments	11,52,499/-
ii) Campus Infrastructure and facilitie	2,19,51,345/-
i) ICT	6,89,329/-

### **Criterion – V**

#### 5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

A career guidance cell has been setup to improve the students' performance in placement and higher education. To provide students with international standard sports facilities, a cricket ground, a gym, table tennis academy and an indoor stadium have been established. Further, sports scholarship has been provided.

#### 5.2 Efforts made by the institution for tracking the progression

The activities are monitored and reviewed during academic council and board of governor meetings. Action taken to overcome any deficiency.

5.3 (a) Total Number of students	UG	PG	Ph. D.	Others
	2945	380		

312

(b) No. of students outside the state

(c) No. of international students



Men	No	%	Women	No	%	
	2322	69.32		1028	30.68	

Last Year			This Year								
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
1584	476	190	918		3168	1663	499	200	963		3325

Demand ratio: 1:5

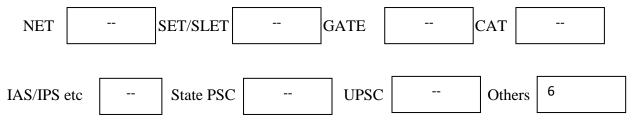
Dropout %: 2

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

- Technical Aptitude training class
- Training Program on New Technologies
- Business English Certificate(BEC) Coaching
- Gate Coaching class
- Campus recruitment training- soft skills, aptitude, and value added programmes.

No. of students beneficiaries 1813

5.5 No. of students qualified in these examinations



5.6 Details of student counseling and career guidance

- Counseling by faculty advisors during Tutor hours to strengthen students' academic performance, involvement in co-curricular activities and morality.
- Organizing career guidance programmes every semester by inviting experts from industries.
- Organizing seminars conferences, guest lectures, workshops.

No. of students benefitted 2642

5.7 Details of campus placement

On campus		Off Campus			
Name of	Number of Students	Name of	Number of Students		
Organizations Visited	Placed	Organizations Visited	Placed		
Tek Systems	1	Byju's	13		
Tata Technologies	2	Capgemini India Pvt.	1		

		Ltd.	
Rane Group	3	Syntel	4
Tech Mahindra	24	Genpact	13
Capgemini India Pvt. Ltd.	96	Mphasis	3
Grey Campus	7	Justdial Limited	10
Ntt Data	1	Aliens Developers	22
Cybage	7	Exinent Info Solutions Pvt Ltd	1
Cyient	7	Cognizant	4
Primefocus Technologies	4	AEGAN TECHNOLOGIES PVT LTD	1
Pyramid Consulting	2	Reliance	1
Intelenet Global Services	6	L&G Technologies Pvt Ltd	1
Prolifics	4	VIVO	1
Apex Covantage	5	С	1
Hexaware Technologies	1	HDFC LIFE	1
Camp	1	R LABS	1
Demart	1	NEW HORIZONS	1
Thomson Reuters	1	MEDPLUS	1
		INNO CARE	1
		ACCENTURE	1
		INFOSYS	1
		AMAZON	2
		INDIGO	2
		CADES STUDEC	1
		MAGURE SOFTWARES	1
		L&T TECHNOLOGIES SERVICES	1
		CODIVITI	1

5.8 Details of gender sensitization programmes

Gender equity promotion programs organized by the institution during the year 2016-17							
S.no	Title of the program	Period (from to)	Boys	Girls			
1	A session on "Gender equality" (for wellbeing of society)	24/08/2016- 24/08/2016	35	52			
2	An Awareness Program on "Gender Discrimination"	07/09/2016 - 07/09/2016	42	56			

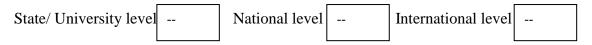
3	Women's Empowerment Program" A Talk on Causes and Effects on Gender Equality	11/10/2016- 11/10/2016	37	57	
4	A Session on "Importance of Girls in Education"	19/11/2016 - 19/11/2016	24	45	
5	A Session on "Women's Movement and Human Rights"	10/12/2016 - 10/12/2016	39	47	
6	Essay Writing competition on "Women and their Role in Science and Technology"	21/01/2017- 21/01/2017	25	40	
7	International Women's Day celebrations- A Women's Hub	08/03/2017 - 08/03/2017		120	
8	Health camp for women	24/03/2017- 24/03/2017		55	

## 5.9 Students Activities

## 5.9.1 No. of students participated in Sports, Games and other events

State/ University leve	] 11	National level	2	International level		
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## No. of students participated in cultural events



## 5.9.2 No. of medals /awards won by students in Sports, Games and other events

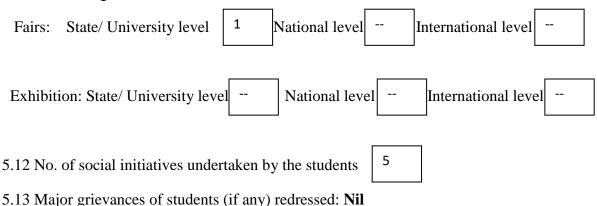
Sports:    State/ University level 11    National level 2    International level	
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Cultural: State/ University level		National level		International level		
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5.10 Scholarships and Financial Support

	Number of students	Amount (Rs)
Financial support from	205	1435000
institution		
Financial support from	1871	71619800
government		
Financial support from other	Nil	
Number of students who received International/	Nil	
National recognitions		

5.11 Student organized / initiatives



## **Criterion – VI**

#### 6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision: To create and nurture competent Engineers and managers who would be enterprise leaders in all parts of the world with aims of reaching the skies and touching the stars and yet feet firmly planted on the ground – good human beings steeped in ethical and moral values.

**Mission:** MLR Institute of Technology is committed to providing a positive, professional and conducive learning environment where all students are inspired to achieve their potential and strive for excellence in a global society as dignified professionals with the cooperation of all stakeholders.

6.2 Does the Institution has a management Information System: Yes

The institution has a MIS in place used for decision-making, coordination and control.

#### Administration

The salaries of the faculty are calculated automatically by integrating the biometric attendance. By 2nd of every month the salary slips gets generated and faculty can verify and if any discrepancies will be notified immediately to the admin department which will be resolved before crediting the salary. This has increased the efficiency and reduced the man hours. All classes are under CC surveillance that helps the head of the department as well the principal to monitor more efficiently.

#### **Planning and Development:**

All the circulars and notices are circulated using emails and college website. Any kind of data requirements for planning are acquired through google sheets, google forms etc. For attainment

calculations of each and every program Ion Cudos software is used. All notices/circulars are sent to

faculty through emails.

## **Institutional Automation System:**

 $\Box$  The aim of this practice is to introduce automation in the administrative system (Office administrative system, Student administrative system & Library administrative system) and the academic activities of the college

 $\Box$   $\Box$  The main aim of the implementation of automation is to reduce the paper works.

 $\Box$   $\Box$  To get / access accurate and precise data

 $\Box$   $\Box$  The system is having the following features:

- Student Management
- Staff Management
- Examination Management
- Library Management

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

#### 6.3.1 Curriculum Development

In an attempt to compensate for the deficiencies by providing specialized training in technical skills as well as communication and problem solving skills every week 10 hrs (after college regular timings) are planned in order

- > To nurture excellence in professionalism and human conduct.
- To develop a deep understanding of corporate psychodynamics and expectations from employees
- > To help students experience the elements of persona building and self grooming

To take students on a journey through choosing the right job into understanding the mind of the recruiter to make it there while building competence in elements like resume building, cover letters, email etiquette, interviews and follow-up.

## 6.3.2 Teaching and Learning

MLRIT has revised its teaching methodologies towards Outcome-based systems so as to focus on increasing students' learning and; ultimate performance abilities to the highest possible levels before they leave college. Bloom's taxonomy is used in every subject to provide a common language for teachers to discuss and exchange learning and assessment methods. The goal of using Bloom's taxonomy is to encourage higher-order thinking skills such as applying knowledge to a real setting, analyzing problems and developing solutions, evaluating reasoning processes or actions.

## **6.3.3 Examination and Evaluation**

 $\square$   $\square$  All the processes of examination and evaluation are automated using a custom made BEES software

package.

## 6.3.4 Research and Development

A Research Monitoring Committee (RMC) is constituted which is responsible for drafting, regulating and implementing different research policies.

The primary objective of the research incentives is to motivate the faculty members of our institute to undertake quality research, consultancy and other research related activities. Various research incentives are provided such as

- Incentive for Research paper publication in Scopus / Web of Science Indexed Journals (Paid/Free) and Scopus Indexed Conferences.
- Research guidance / Mentorship Scheme.
- > PhD Guideship.
- Softloan for candidates pursuing PhD.
- ➢ Patents.
- ➢ Citations.
- Publication of text books.
- Support for Anti-Plagiarism for Research papers/Thesis using Turnitin software.
- Scopus Database.
- Research Leave during Non-class work period.

Every semester break there is an audit of the research publications through variable pay. The parameters in the variable pay are scrutinized to verify all activities related to research have been completed as per norms of the college.

## 6.3.5 Library, ICT and physical infrastructure / instrumentation

The college boasts a well-stocked and digitalized central library with college and department-wise division to ensure easy, quick and efficient access to desired data. Library automation & OPAC online access system have been employed in library. Provide access to e-journals such as IEEE, Science Direct, DELNET, NMEICT, N-list. The Librarian helps the departments to purchase the latest edition of the books as per the requirement of the teachers.

To make teaching and learning more diversified and interactive every classroom is provided with LCD projectors. Faculty no more rely solely on books. It changed conventional habits and rituals in the classroom. Every faculty uses the projector to help make abstract concepts easier to understand. Usage of projectors affected the teaching and learning experience, several areas of influence were identified, including visual aid, greater flexibility for alternative teaching methods, enhanced teacher demonstrations, heightened student awareness and customized curriculum applications. Every faculty indicates in the session planner the topic which will be taught using the animated video.

#### 6.3.6 Human Resource Management

Performance Based Rating Schemes has been evolved to reward the faculty annually by means of increments/promotion, UGC based faculty self appraisal for API has been introduced for faculty with Ph.D qualification. The institute provides faculty sponsorship for

- Conferences, Workshops, Faculty Development Programs
- Transport facility at subsidized cost
- ✤ Offers membership fee for professional society membership
- Increments based on Performance based appraisal
- ✤ Lab technicians are encouraged for pursuing higher education
- ✤ Maternity leave facility
- Research Leave during Non class work period.
- ✤ Group Insurance
- Professional Body Membership fee

Reimbursement of registration cost for Online Course (NPTEL)

6.3.7 Faculty and Staff recruitment

As per the guidelines issued by UGC / AICTE / JNTUH the faculty recruitment is carried out depending on the availability of vacancies.

6.3.8 Industry Interaction / Collaboration Members of industry have been included in the Board of Studies (BoS) to provide input related to the needs of the industry. Further, a number of MoUs has been signed with industry as part of industry/interaction/collaboration

6.3.9 Admission of Students: The quality of admitted students has improved because of lower ranked students choosing the college as first choice in the EAMCET Counseling

6.5 Total corpus fund generated 2.35 Lakhs

6.6 Whether annual financial audit has been done



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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	NBA	Yes	IQAC
Administrative	No		Yes	IQAC

6.8 Does the University/ Autonomous College declare results within 30 days?

For UG Progra	Yes	V	lo	
For PG Programmes	Yes	V	] No	

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

The following examination reforms were made for the UG/PG courses Moderation Rules

- Moderation of up to 5 marks per semester is applicable to only those students who fail to attain 40% marks in External exam.
- Moderation can be applied to theory subjects only.
- Moderation is not a student's right i.e. Moderation Committee will decide whether to moderate or not.
- > Moderation can be done only once i.e. either before or after the re-examination.

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

The university gives some autonomy and guides the institute in Curriculum design, question paper setting.

#### 6.11 Activities and support from the Alumni Association

Alumni are active members of Board of studies of all departments. Board of studies incorporates valid recommendations of alumni in curriculum design and development.

## 6.12 Activities and support from the Parent – Teacher Association

- Parents meet every semester Parents meet is convened every semester to discuss the progress of their wards and to obtain suggestions from parents. As per suggestions of the parents 6 separate buses have been arranged to support students participating in sports in the evening hours.
- Parent's involvement during curriculum design We have students whose parents are principals at schools, assoc. Professors and professors at other engineering colleges. They constantly speak to the HoDs and give suggestions. For example COTs –Concept Oriented Tutorials was implemented to all in the beginning. But based on parent's feedback, it was

6.13 Development programmers for support staff

Basic English Communication Computer Skills – Ms-word, Excel

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

- **Restricted entry of automobiles:** The institute encourages the staff and students to use the college transport instead of their own vehicles for safety, security, fuel conservation and to reduce environmental pollution. A bar gate is kept at the entrance to avoid the movement of vehicles beyond the parking point.
- Use of bicycles/ Battery-powered vehicle: Students and staff are encouraged to use bicycles/ Battery-powered vehicle within the campus as they are environment friendly and prevents pollution. For this, the management made 20 bicycles and 2 Battery-powered vehicles available in the campus.
- **Pedestrian-friendly pathways**: The institute has pedestrian friendly pathways for comfortable walking inside the campus. The roads inside the campus are lined with trees and solar lights and are properly maintained.
- **Ban on use of plastic:** To restrict the use of plastic, the institute has banned single-use plastic items such as plastic bottles, bags, spoons, straws and cups within the campus.
- Landscaping: The institute has a canopy of trees and plants to make the campus pollution free. The lawns and the trees provide shade and beautiful ambience. Utmost care is taken to maintain green landscaping by trained gardeners and supervisors.

#### **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.

Skill development of students to empowers them by implements prior activities viz

- Micro Projects for better understanding of concern.
- > SPEED (Student platform) to inculcate participation in projects competition
- EPICS (Engineering Projects in Community Services) to harness community awareness and promote grass roots innovation.

- Mentor, Mentee system to provide counseling to students.
- Development of students by collaborating with national and international organization for example, EPICS is being carried in collaboration with Purdue University.
- > Spatial skills enhancement under the guidance of Rowen University, USA
- Remedial classes for weak and slow learners
- Concept oriented tutorial to improve the performance of the students in GATE and other competitive examination.
- Visit of experts' from industries and professional institutions.

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

Plan of Action of the begging of the year	Action taken Report
To conduct IUCEE International Engineering	
Educator Certified Programme (IEECP)	
To conduct workshop for faculty to introduce Active Learning in the Class room teaching	
To organize Research Methodology workshop with on aim to improve quality of research work	Completed
Workshop on Impact of Teachers effectiveness on students achievement	
Workshop on A positive Attitude-Transforming an average to good and excellent teacher	
BEC training for English faculty of I-Year	

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

Holistic Development of MLRITIANS: MLRIT focuses on the development of a student's physical, cognitive, social, and psychological capabilities and promotes critical and innovative thinking within an academic setting. As a result, the college is committed to supporting holistic learning. The phrase "holistic education" refers to the development of students' multi-faceted abilities with the goal of assisting them in dealing with life's necessities and constraints while also providing them with possibilities based on their skills and interests. Since gaining autonomy, the institution has made it a point to change its curriculum every year to allow for academic flexibility. This allows students to receive exposure to a variety of

academic and non-academic disciplines of study. As a result, they will be able to choose their particular location inside the current global knowledge system.

- \* "MLRIT"-Social Connect: From the time of its inception, MLRIT has remained well connected with societal-centric activities and focuses on education along with societal responsibility that enriches the skills of its student fraternity and enables them to get a better understanding of real-world problems. The institutional values of altruism, service, and community orientation are the key determinants of this commitment. There has always been some form of exchange of knowledge, resources, and services between the HEIs and the proximate communities. Community service and association with local communities are key to the development of a value-based future generation. It is not a new arena and the prominence of community and societal connections with the higher educational institutions elevates students into better citizens of the society. However, the organized process of such exchange, called 'community engagement,' has increased in importance.
- 7.4 Contribution to environmental awareness / protection

The institute has the goal to protect the environment through the implementation of Green Campus Policy in the campus and nearby villages. The intention of the Policy is to keep the campus pollution-free and also create an ecology that promotes a comfortable learning environment for the students and a better environment for the nearby villagers. Green club of the institute along with NSS is coordinating the environment awareness protection activities. The Green Club and NSS unit of the Institute strives

- > To protect and preserve ecological systems and resources within the campus.
- To continuously improve the efficient use of all resources, including energy and water, and to reduce consumption and the amount of waste produced, recovering and recycling waste, wherever possible.
- 7.5 Whether environmental audit was conducted? Yes  $\sqrt{}$

No

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

### **Institutional Strengths:**

- I. Autonomous status and NBA Accreditation for all departments.
- II. 25 acres green lush campus with sufficient infrastructure facilities with Wi-Fi, providing conducive learning ambience.
- III. Well equipped labs and Centre of Excellences (CoE) in each department catering the cutting edge technologies.
- IV. Implementation of quality improvement programme under IQAC.
- V. Automation of Teaching-Learning process by the application of MIS.

#### Institutional Weakness:

- 1. Less number of Ph.D qualified faculty member
- 2. Insufficient consultancy and patents

#### 8. Plans of institution for next year

- 1. Effective implementation of active learning strategies constituting five activities viz;
  - i) Flipped Class Rooms
  - ii) TAPPS
  - iii) In-Class Teams
  - iv) Group writing Assignment
  - v) Collaboration Learning
- 2. Focus on quality Research Publications in high impact and free journals
- 3. Upgradation of Syllabus to narrow the gap between academic and industry needs
- 4. Teacher training programme to improve teacher's effectiveness on student performance
- 5. Improvement in examination papers to assess analytic and problem solving capabilities of students

Name: Prof.K.L.Chugh Professor & Dean in CS Director-IQAC Name: Dr.P. Bhaskara Reddy Professor & Principal