

The Annual Quality Assurance Report (AQAR) of the IQAC

Part – A

AQAR for the year (*for example 2013-14*)

1. Details of the Institution

1.1 Name of the Institution

Nitte Meenakshi Institute of Technology

1.2 Address Line 1

P.B. No 6429, Govindapura,

Address Line 2

Gollahalli, Yelahanka

City/Town

Bangalore

State

Karnataka

Pin Code

560064

Institution e-mail address

principal@nmit.ac.in

Contact Nos.

**080- 22167803
080- 22167800**

Name of the Head of the Institution:

Dr.H.C. Nagaraj

Tel. No. with STD Code:

080- 22167803

Mobile:

9845275240

Name of the IQAC Co-ordinator:

Prof.K.A. Ranganatha Setty

Mobile:

9845923345

IQAC e-mail address:

karsetty@hotmail.com

1.3 NAAC Track ID (*For ex. MHCOGN 18879*)

KACOGN15183

OR

1.4 NAAC Executive Committee No. & Date:

EC (SC)/01/A&A/005 dated 5-5-2014

(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:

www.nmit.ac.in

Web-link of the AQAR:

www.nmit.ac.in/disclosure.php

For ex. <http://www.ladykeanecollege.edu.in/AQAR2012-13.doc>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	A	3.02	2014	05
2	2 nd Cycle				
3	3 rd Cycle				
4	4 th Cycle				

1.7 Date of Establishment of IQAC: DD/MM/YYYY

26/02/2013

1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to NAAC on 12-10-2011))

i. AQAR 05.09.2015

ii. AQAR _____ (DD/MM/YYYY)

iii. AQAR _____ (DD/MM/YYYY)

iv. AQAR _____ (DD/MM/YYYY)

NOT APPLICABLE

1.9 Institutional Status

University State Central Deemed Private

Affiliated College Yes No

Constituent College Yes No

Autonomous college of UGC Yes No

Regulatory Agency approved Institution Yes No

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education Men Women

Urban Rural Tribal

Financial Status Grant-in-aid UGC 2(f) UGC 12B

Grant-in-aid + Self Financing Totally Self-financing

1.10 Type of Faculty/Programme

Arts Science Commerce Law PEI (Phys Edu)

TEI (Edu) Engineering Health Science Management

Others (Specify)

MCA

1.11 Name of the Affiliating University (*for the Colleges*)

Visvesvaraya Technological University.

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

Autonomy by State/Central Govt. / University

YES

University with Potential for Excellence

NO

UGC-CPE

NO

DST Star Scheme

NO

UGC-CE

NO

UGC-Special Assistance Programme

NO

DST-FIST

1 Applied

UGC-Innovative PG programmes

NO

Any other (*Specify*)

NO

UGC-COP Programmes

NO

2. IQAC Composition and Activities

2.1 No. of Teachers

11

2.2 No. of Administrative/Technical staff

02

2.3 No. of students

04

2.4 No. of Management representatives

01

2.5 No. of Alumni

02

2.6 No. of any other stakeholder and

-

Community representatives

2.7 No. of Employers/ Industrialists

02

2.8 No. of other External Experts

-

2.9 Total No. of members

2.10 No. of IQAC meetings held

2.11 No. of meetings with various stakeholders: No. Faculty

Non-Teaching Staff Students Alumni Others

2.12 Has IQAC received any funding from UGC during the year? Yes No

If yes, mention the amount

2.13 Seminars and Conferences (only quality related)

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

Total Nos. International National State Institution Level

(ii) Themes

- **Outcome Based Education.**
- **Research Funding Schemes.**
- **Autonomy and Accountability in Educational Institutions.**
- **Joys and Challenges of Engineering Research.**
- **Process for Computing CO-PO Attainment (NBA).**
- **Mentorship.**

2.14 Significant Activities and contributions made by IQAC

- **Timely completion of Academic Audit.**
- **Monitoring the Accreditation Activities.**
- **Reviewing the Departmental research activities which resulted in filing of patents and publishing quality papers.**
- **For the academic excellence of the students and enhancing the quality, every department is having faculty members as mentors. Each mentor is allotted around 25 students for the guidance in academics, discipline, personal and other extra-curricular activities. The members counsel the students periodically.**
- **Every month a college level meeting headed by the principal is conducted along with the HODs of all the departments for reviewing the mentoring activities carried out in their respective departments.**
- **During the previous semester five such review meetings were conducted on 14/12/15, 27/1/16, 12/2/16, 2/3/16 and 26/4/16 with HODs of all the departments under the chairmanship of the principal. Due to this the academic performance of the students i.e., attendance and marks of the academically weak students improved significantly. We are contemplating to continue this process for the ensuing semester also.**

2.15 Plan of Action by IQAC/Outcome

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
<ul style="list-style-type: none"> • Conduction of orientation programs for students. • Conduction of faculty orientation program for fresher. • Conduction of soft skills & personality development programs for students. • Outcome based curriculum development program need to be arranged. • Faculty to improve the numbers and quality of faculty research publication in reputed journal/ conference. • Academic audit need to be conducted by July -2016. • Patent filing. • Every month department need to conduct faculty colloquium. 	<ul style="list-style-type: none"> • Conducted orientation program for both students and faculty at the beginning of the academic year. • Conducted series of training programs for pre-final year students to improve their numerical aptitude skills, soft skills and technical skills. • Faculty able to publish 175+ research papers. • Completed academic audit on time. • 8 Patents are filed. • Every department is conducted monthly faculty colloquium.

The Academic Calendar of the year is enclosed as Annexure-I.

2.15 Whether the AQAR was placed in statutory body Yes No

Management Syndicate Any other body

Provide the details of the action taken

Approved by IQAC.

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	10	1	11	11
PG	9	1	10	10
UG	7		7	7
PG Diploma				
Advanced Diploma				
Diploma				
Certificate				
Others				
Total	26	1	28	28
Interdisciplinary				
Innovative				

1.2 (i) Flexibility of the Curriculum:

CBCS/Elective option / Open options

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	17
Trimester	NIL
Annual	NIL

1.3 Feedback from stakeholders* Alumni Parents Employers Students
(On all aspects)

Mode of feedback : Online Manual Co-operating schools (for PEI)

Analysis of the feedback is enclosed in the Annexure- II

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

Yes

- **The curriculum has been revised by keeping in view the industry requirements and involving the experts from Industry in BOS and Academic Council.**
- **In respect of Choice Based Credit System, the institution offers four program electives and two open electives for the 2014-17 batches.**
- **Outcome Based Curriculum.**

It has been revised as indicated below,

- **Scheme for 3rd to 8th semester of BE has been revised for 2015-18 batch.**
- **Syllabus for 3rd and 4th semester of BE for 2014-18 batch has been revised.**
- **Minor changes have been done to the syllabus (2010-14 batches) of 5th to 8th semesters.**
- **The following electives are introduced:**
 - **Advance Engineering Mechanics.**
 - **Smart Grid.**
 - **Automotive Electronics.**
 - **Internet of Things.**
 - **Web Technology.**
 - **Android Development.**
 - **Flight Vehicle Design.**
 - **Mechanical Vibrations.**
 - **Non Traditional Machining.**
 - **Introduction to ASP.net.**

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

Yes

- **M.Tech- Renewable Energy.**

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty	Total	Asst. Professors	Associate Professors	Professors	Others
	291	212	36	43	-

2.2 No. of permanent faculty with Ph.D.

53

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

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
46	00	00	00	09	00	00	00	55	00

2.4 No. of Guest and Visiting faculty and Temporary faculty

02

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/	99	73	14
Presented papers	72	54	01
Resource Persons	04	06	01

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

- **Institute is practising Outcome Based Learning and Teaching (OBLT).**
- **The following delivery methods are adopted to achieve the Learning Outcomes:**
 - Lectures interspersed with discussions.
 - Tutorials.
 - Course Projects/ Main Project.
 - Case Studies.
 - Programming Assignments.
 - Seminars.
 - Written Assignments.
 - Hands on Sessions.
 - Self-study /Internship.
 - Workshop/Invited Talks/Webinars.
 - Debate.
- **Course specific case studies/ projects are introduced from 2nd year onwards.**
- **Students are encouraged to participate in co-curricular activities.**
- **Institute/department organizes workshops/ seminars on current technology/ skills and technical competitions regularly.**
- **College mandates every student to either take-up internship program in well-known Industry/R&D Organizations/ Institutes of National Eminence.**
- **Rubric based evaluation is in practice.**
- **Project based studies and case studies with live examples.**

- The students are motivated to associate with ongoing research projects and sponsored research projects in their respective departments and multidisciplinary research centres.
- Concept based instruction.
- Inquiry based learning.
- Cooperative learning.
- Team projects.
- Robotics Engineering – LEGO MINDSTORM and TETRIX course for semester 3 and semester 4 BE students from CSE, ISE, ME, ECE, EEE, Civil.
- Special training courses on NS2, Visual Studio C++, Ubuntu C, Java Programming, Image and Video Processing and Embedded Boards.
- The students undergo On-The-Job training, summer projects, minor research projects and major research projects.
- The institute promotes experiential learning by method of course based presentation and seminar on current issues and development in global context. Along with this the institute provides the students with a platform to enhance their skills and knowledge by conducting national level events like, software development contest, summer training report contest, research paper contest etc. distributed over the year. Institute on its part does its best to facilitate innovative practices by procuring the necessary equipment and technology.
- Certification courses, value added courses, mini projects are executed for effective teaching and learning Process.
- Use of motion pictures, educational films, video tapes, diagrams, tables, graphs and charts.
- Class discussions conducted by a student or student committee, moderated by teachers.
- Special assistance provided for students having difficulty in the course.
- Using case studies reported in literature to illustrate psychological principle and facts.
- Report on research studies and experiments by students.
- Mini projects were executed in the laboratory courses and in some subjects, self-study courses were introduced. Seminars were presented by students in selected subjects.

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

180

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

- **Part of CIE assessment includes:**
 - Multiple Choice Questions (Surprise test).
 - Certification Exams.
 - Open Book Test.
 - Take home assignments.
- Part of CIE is assessed through rubrics.
- Examination process is automated.
- Bar coding technology has been adopted to strengthen the automated process.
- OMR technology permits quick and easy entry of marks without any room for error.
- Revaluation and photocopy facility is available to address the grievances of the students.
- Double valuation and on-line valuation system by VTU.
- Anti-plagiarism check for the project Thesis.

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

87	78	82
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2.10 Average percentage of attendance of students 88%

2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
BE (AE)	44	52.27	45.45	2.27	NIL	100
BE (CSE)	196	89	3	2.9	NIL	95.4
BE (CV)	66	69.69	18.18	9.09	NIL	96.96
BE (ECE)	218	79.35	14.6	4.5	NIL	98.6
BE (EEE)	65	76	11	6	1	94
BE (ISE)	59	66.10	33.89	NIL	NIL	100
BE (ME)	206	56.31	33.98	7.28	NIL	97.57
MBA	76	15.78	61.84	15.78	NIL	93.42
MCA	74	74	NIL	NIL	NIL	100
M.Tech (CNE)	11	45.45	54.54	NIL	NIL	100
M.Tech (CSE)	35	57.14	40	2	NIL	99.14
M.Tech (DCN)	15	60	33.33	NIL	NIL	93.33
M.Tech (MD)	19	31.57	42.10	15.78	10.52	73
M.Tech (SE)	23	82.60	4.34	NIL	NIL	82.6
M.Tech (THER)	11	9.09	45.45	NIL	NIL	54.5
M.Tech (VLSI)	18	50	50	NIL	NIL	100

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

- **IQAC closely monitors the teaching & learning processes adopted by various departments.**
- **It reviews the academic calendar and time table.**
- **IQAC prepares a schedule for academic audit and feedback.**
- **Academic audit committee audits each faculty with various parameters.**

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	57
UGC – Faculty Improvement Programme	-
Faculty Improvement Programme	20
HRD programmes	64
Orientation programmes	26
Faculty exchange programme	-
Staff training conducted by the university	03

Staff training conducted by other institutions	163
Summer / Winter schools, Workshops, etc.	09
Others	-

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	30	00	03	00
Technical Staff	63	00	16	00

Criterion – III

3. Research, Consultancy and Extension

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

- **Organizing orientation programs in the following areas:**
 - Research Methodology.
 - Patent filling.
 - Funding agencies & Schemes.
- **Faculty members are encouraged to publish research papers in journals/ referred national/International Conferences with financial aid.**
- **Faculty carrying out a research project are given complete independence for execution of the research project.**
- **Faculty is encouraged to bring sponsored projects from external funding agencies.**
- **Faculty are provided complete support from the institution in terms of infrastructure, computational facilities, and specially allotted time for carrying out research.**
- **Faculty carrying out a research project have been given some reduction in the work load.**
- **Financial support is given for faculty & student for patenting their work.**
- **Seed money is provided through IEDC & TEQIP schemes.**
- **Research associates are appointed and paid by the college.**
- **Establishment of Centre for Robotics Research, Center for Big Data Research (under progress).**
- **Faculty members are encouraged to register for fulltime/part-time Ph.D.**

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	06	08	-	09
Outlay in Rs. Lakhs	79.56 Lakhs	291.09 Lakhs	-	166.5 Lakhs

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	10	12	-	-
Outlay in Rs. Lakhs	10.12 Lakhs	15.55 Lakhs	-	-

3.4 Details on research publications

	International	National	Others
Peer Review Journals	73	24	3
Non-Peer Review Journals	05	05	-
e-Journals	25	-	-
Conference proceedings	46	07	-

3.5 Details on Impact factor of publications:

Range **0.1-2** Average **1.1** h-index **2** Nos. in SCOPUS **32**

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 (in Rupees)	Received
Major projects	2016-18	DST (TIDE)	66.48 Lakhs	47.64 Lakhs
	2016-18	DST	46 Lakhs	25 Lakhs
	2011-17	VTU	45 Lakhs	45 Lakhs
	2016-18	DST	33.95 Lakhs	23.66 Lakhs
	2016-18	Vision Group on Science and Technology, Department of IT,BT and S&T, Govt.of.Karnataka	26.66 Lakhs	10 Lakhs
	2013-15	DIT	15.26 Lakhs	15.26 Lakhs
	2015-17	DRDO – SITAR	7 Lakhs	3.5 Lakhs
	2016-17	VGST	6 Lakhs	6 Lakhs
	2012-15	Indian Council for social science research	3.37Lakhs	3.14Lakhs
Interdisciplinary Projects	2012-16	DST, New Delhi CVRDE, DRDO VGST, Karnataka	115.33 Lakhs	75.33 Lakhs
Projects sponsored by the University/ College	2012-15	VTU	5.6 Lakhs	5.2 Lakhs
	2015-16	TEQIP-II	4 Lakhs	4 Lakhs
	2015-16	TEQIP	3.65 Lakhs	3.65 Lakhs
	2015-16	College	2.37 Lakhs	2.37 Lakhs
	2015-16	TEQIP-II	2.6 Lakhs	2.6 Lakhs
	2015-16	TEQIP-II	2 Lakhs	2 Lakhs
	2015-16	TEQIP- II	1.97 Lakhs	1.97 Lakhs
	2015-16	TEQIP-II	0.8 Lakhs	0.8 Lakhs
Students research projects	2014-2015	IEDC (DST)	3 Lakhs	3 Lakhs
	2015-2016	IEDC (2 Projects)	1.5 Lakhs	1.5 Lakhs
	2015-2016	IEDC (DST)	1 Lakhs	1 Lakhs
	2015-2016	KSCST	0.6 Lakhs	0.6 Lakhs
	2015-16	VGST	0.4 Lakhs	0.4 Lakhs
Industry sponsored	2015-2016	KSCST, UNESCO	1.25 Lakhs	1.25 Lakhs
	2105-2016	JNCASR	0.5 lakhs	-
Any other(Specify)				
Total			396.29 Lakhs	284.87 Lakhs

3.7 No. of books published i) With ISBN No: **03**
 ii) Chapters in Edited Books **03**
 iii) Without ISBN No. **03**

3.8 No. of University Departments receiving funds from

UGC-SAP CAS DST-FIST **01 (Applied)**
 DPE DBT Scheme/funds

3.9 For colleges

Autonomy CPE DBT Star Scheme
 INSPIRE CE Any Other (specify)

3.10 Revenue generated through consultancy **Rs.11.55 Lakhs**

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	01	-	NIL	NIL	01
Sponsoring agencies	TEQIP & College	-	NIL	NIL	College

3.12 No. of faculty served as experts, chairpersons or resource persons **17**

3.13 No. of collaborations: International **04** National **18** Any other **NIL**

3.14 No. of linkages created during this year **16**

3.15 Total budget for research for current year in lakhs of Rupees:

From funding agency **284.87 Lakhs**

From Management of University/College **50 Lakhs**

Total **344.5 Lakhs**

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	08
	Granted	02
International	Applied	NIL
	Granted	NIL
Commercialised	Applied	NIL
	Granted	NIL

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
02	NIL	01	01	NIL	NIL	NIL

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

53
88

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

04

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

JRF NIL SRF NIL Project Fellows 02 Any other 10

3.21 No. of students Participated in NSS events:

University level 05 State level 10
National level NIL International level NIL

3.22 No. of students participated in NCC events:

University level 56 State level 06
National level 09 International level NIL

3.23 No. of Awards won in NSS:

University level 04 State level 04
National level NIL International level NIL

3.24 No. of Awards won in NCC:

University level 27 State level 06
National level 09 International level NIL

3.25 No. of Extension activities organized

University forum College forum 01
NCC 03 NSS 15 Any other 2

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

- Student participated in the “National Integrity “camp.
- International Yoga day was organised by NCC and NSS in NMIT campus.
- Created the awareness on rain water harvesting by the help of quiz on rain water harvesting.
- Created awareness on environment by conducting world environment day.
- Donation of stationary items worth Rs10,000/- to Government school, Nagenhalli.
- Youth awareness programs will be conducted at least twice in a semester.
- Health and dental check-ups will be organised once in every semester.
- Blood donation camps will be organised once in every semester.
- Dispatching of essential commodities for Nepal earthquake relief.
- Swatch Bharat Programs.

- **Katalyst aims to be a leader in this continual elevation and transformation of young women from low income communities to lead change in their professional and personal spheres of life. An initiative taken the college for women empowerment in collaboration with NGO Katalyst connected to placement & training department. Identified 32 girl students and have been selected for this program.**
- **Social Transformation Empowerment Program (STEP) residential programme held between Jan 23- Jan 31, 2016 by “Samartha Bharatha”.**
- **"IIRS-ISRO Outreach Program ": Department is recognized as “Remote Center”, one among two engineering colleges in Karnataka (NMIT & BMSCE). Successfully offered online course on “Basics of Remote Sensing, GIS & GNSS” between Aug 10-Nov 27, 2015 36 students have enrolled and successfully completed. “Geospatial Technology for Urban Planning”, 16th an Outreach Programme, scheduled between Feb 11- March 15, 2016 Students can continue with internship/ project. Students will get certificate from IIRS-ISRO.**

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	23 Acres	-	Self Financing	23 Acres
Class rooms	105	-	Self Financing	105
Laboratories	93	05	Self-Financing	98
Seminar Halls	07	-	Self Financing	07
No. of important equipments purchased (\geq 1-0 lakh) during the current year.		21	Self Financing	21
Value of the equipment purchased during the year (Rs. in Lakhs)		96.91 Lakhs	Self Financing	96.91 Lakhs
Others				

4.2 Computerization of administration and library

- **KOHA Library Management Software** has been deployed to automate the library transactions.
- Every user's ID card as well as every item of the collection has been bar coded & the transaction (Issue/Return) will be done in a few seconds.
- **My-Gurukul: Online student information and knowledge management collaborative portal** for admission, academics, mentoring and examination activities.
- **Human Resource Management System (HRMS) portal** is used by establishment section.
- **Accounts & inventory software packages** are also in use.

4.3 Library services: (Full College Library)

Library Service	Existing		Newly added		Total(Rs)	
	No.s	Values	No.s	Values	No.s	Values
Text Books	31043	9719980	283	73285	31326	9793265
Reference Books	5430	1927291	213	317290	5643	2244581
E-Books	7685	6.9 Lakhs	-	-	7685	6.9 Lakhs
Journals	34	1,10,5000	34	1,10,500	34	1,10,500
E-Journals	6981	25 Lakhs	6981	25 Lakhs	6981	25 Lakhs
Digital Database	NPTEL, MIT OCW, Harward, Stanford Coursewares					
CD & Video	1887 CD's					
Other Specify	-					

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	1545	1275	350	60	60	75	140	-
Added	120	100	60	-	-	05	05	-
Total	1665	1375	410	60	60	80	145	-

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

- **Computer basics & internet access is part of first year B.E. curriculum.**
- **Conducted training program on “Usage of My-Gurukul: Online student information and knowledge management collaborative portal”.**
- **Conducted workshop on “computer fundamentals, Microsoft office, networking and Trouble Shootings” for non-teaching staff.**
- **Senior professors are deputed for the e-Governance workshop organized by TEQIP/DTE/VTU.**
- **Training program on Tally software and Praptha software for staff of account section.**
- **One of the Regional Nodal Centres of IIT-B/ IIT-KGP for faculty development programs under National Mission on Education through ICT (NMEICT), under MHRD, Govt. of India.**

4.6 Amount spent on maintenance in lakhs of Rupees :

i) ICT	39.05
ii) Campus Infrastructure and facilities	112.35
iii) Equipments	13.98
iv) Others	1393.62
Total:	1559.00

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- **Organizing separate orientation programs on student support services for UG and PG students.**
- **The student support services are primarily looked after by the group of students. Introduction of student centric welfare schemes, addressing various requirements of residential students and providing necessary support system for student related issues is managed by the group of students in consultation with faculty, wardens of the hostels and student representatives.**
- **The college has a students' council with representatives from different classes/sections. The students' council is actively involved in creating awareness about student services among the students and also involved in organizing the curricular /co-curricular/Extra-curricular activities in the campus with the support/ supervision/ participation of the faculty.**

5.2 Efforts made by the institution for tracking the progression

- **Every student is attached to a faculty advisor/mentor right from the first year.**
- **The faculty advisor will talk to the student/parent on regular basis.**
- **The student is expected to meet the faculty advisor frequently with any queries or problems.**
- **The faculty advisor/mentor will share his/her phone number with the student and the parent.**
- **The faculty advisor/mentor will be helping the student to in his academic problems for the four years that he will be at NMIT. The faculty will be constantly guiding the student on how to address stress related to academics.**
- **If the student feels a particular subject difficult he can be advised to withdraw the subject and take it up during supplementary semester. By doing so he will be able to concentrate well on other subjects during the regular subject and also cope with the difficult subject during the supplementary subject.**
- **On the other hand if a student is a fast learner he can be advised to take up more subjects in a semester and complete the course in 7 semesters itself.**
- **If there are any issues pertaining to indiscipline the faculty advisor/mentor will contact the parent and inform of the same.**
- **If a student needs to take time off from college he will need to inform and take signature of the faculty advisor/mentor.**
- **A student should discuss all academic, college, hostel/mess or personal issues including health with his/her mentor.**
- **The faculty advisor/mentor will work with principal, warden, student counselors/ doctors or dean of student welfare to seek help and resolve issues.**
- **Every faculty advisor/mentor will post comments/suggestions to the students in the website link of Gurukul. The link to this online portal can be accessed through the college website www.nmit.ac.in.**
- **If a student misses a class for three consecutive hours, an automated sms will be sent to the parent and mentor whose mobile number is registered in the website.**

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
4245	621	88	-

(b) No. of students outside the state

986

(c) No. of international students

280

Men	No	%	Women	No	%
	3527	71.23%		1427	28.71%

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
3296	285	63	657	02	4281	3872	286	69	705	02	4954

Demand ratio: **1:2**

Dropout: **0.004% (UG)**

0.003% (PG)

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

- **A customized English language course with language lab is offered to the students to enhance their communication skills as part of the curriculum.**
- **Every month, guest lectures from experts from Industry/R & D organisations are arranged.**
- **The departments conduct intensive coaching from experts in areas such as logical reasoning, numerical aptitude, soft skills, analytical thinking, and technical aptitude and interview skills.**
- **During course delivery faculty will take up sample questions of reputed competitive examinations like GATE, IES etc.**
- **Various departments are arranging awareness seminars for students to motivate them to participate in competitive examinations like GRE, GATE, etc.**
- **Besides the above, MBA students are trained in aptitude and soft-skills by TIME.**
- **NMIT has an active and dynamic training and placement cell. The placement cell successfully attracts not only a large number of reputed industries for on-campus placements but also conducts training programs in the areas of soft skills, analytical & problem solving abilities and leadership qualities to enhance the competence of students and bridging the gap between the academia and industry.**
- **Books in library for TOFEL, GATE, GRE, GMAT, CAT etc.**

No. of students beneficiaries

10%

5.5 No. of students qualified in these examinations

NET

NIL

SET/SLET

NIL

GATE

07

CAT

02

IAS/IPS etc

NIL

State PSC

NIL

UPSC

Others(GRE,TOEFL,IELTS)

56

5.6 Details of student counselling and career guidance

- **Career counselling sessions are organized to guide the students to choose the best career option. Students are motivated to take up the following options based on the individual merits.**
 - **Higher studies (both technical & non-technical)**
 - **Appear for various competitive examinations like GATE/ CAT/ GRE/ GMAT/ TOEFL/ JMAT/ IELTS etc.**
 - **Appear for civil and engineering services examinations.**
 - **Appear for public sector job openings under both central and state governments like Defence Services, DRDO, ISRO, NAL, BARC, KPSC etc.**
- **The career guidance talks have been organized from the Chopra, Times, Princeton and Mannhattans in the year 2015-16.**
- **The talks on “higher studies opportunities in abroad” has been arranged from University of Wisconsin–Milwaukee, NDSU, etc.**

No. of students benefitted 50%

5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
79	630	596	57

5.8 Details of gender sensitization programmes

- **A programme on women assault awareness and sensitizing severity of such issues was initiated for the girl students.**
- **A campaign was organized to highlights the importance of gender sensitization and repeated behavioural issues to students.**
- **Orientation program/ counselling for girls students.**
- **Each lady faculty member has been allotted 15 girl-students to take care of gender issues if any under proctor system.**
- **Staff members are informed to wear the dress as prescribed.**
- **Students are informed to follow the dress as prescribed.**
- **There is an anti-sexual harassment committee to take care of any such cases.**

5.9 Students Activities

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

State/ University level 46 National level 10 International level -

No. of students participated in cultural events

State/ University level 160 National level 67 International level -

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

Sports: State/ University level	82	National level	-	International level	-
Cultural: State/ University level	16	National level	01	International level	-

5.10 Scholarships and Financial Support

	Number of students	Amount in Rs
Financial support from institution	500	Rs. 2,15,74,581/-
Financial support from government	1098	Rs. 2,88,44,600/-
Financial support from other sources	-	-
Number of students who received International/ National recognitions	06	Rs. 3,24,000/-

5.11 Student organised / initiatives

Fairs : State/ University level	21	National level	17	International level	-
Exhibition: State/ University level	-	National level	-	International level	-

5.12 No. of social initiatives undertaken by the students

10

5.13 Major grievances of students (if any) redressed: **No major grievances reported during the assessment year.**

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision: To provide India and the World, technical manpower of the highest academic excellence and World class by shaping our youth through holistic and integrated education of the highest quality.

Mission: To develop Nitte Meenakshi Institute of Technology through quality, innovative and State-of-Art educational initiatives into a Centre of Academic Excellence that will turn out youth with well balanced personality & commitment to rich cultural heritage of India and who will successfully face the Scientific and Technological challenges in the fast-evolving global scenario with a high degree of credibility, integrity and ethical standards.

6.2 Does the Institution has a Management Information System

- **Yes, NMIT is using the following information and knowledge management softwares for its effective working:**
 - **My-Gurukul: Online student information and knowledge management collaborative portal.**
 - **Praptha Software: Accounting & invoicing software.**
 - **OPAC: Library Software for search facility.**
 - **KOHA: Library management software.**
 - **HRMS Portal: Payroll Module.**
- **My-Gurukul: The salient features are mentioned below:**
 - **Personalized login and personalized content/information view.**
 - **Online course registration both odd/even semesters with option to select open elective subjects (higher semester) based on first come first serve basis.**
 - **Alerts/messages thro SMS and EMAILS.**
 - **Access to college/ department notice board, calendar of events, holiday list and events.**
 - **Access to syllabus and lesson plan details and question banks.**
 - **Student subject-wise attendance performance details with option to drill down for more information.**
 - **Student CIE performance details including marks obtained in various tests during semester.**
 - **Access to class/department schedules ie. Time-table.**
 - **Access to exam schedules, alerts related exam application form submission, revaluation schedules etc.**
 - **Hall ticket print/download with exam schedule and room information.**
 - **Online Semester End Examination results view with option to print/download provisional grade cards.**
 - **Online supplementary registration and acknowledgement form printing.**
 - **Online assignment submission.**
 - **Online student feedback (staff evaluation) on staff performance for each semester.**
 - **Interaction with class teacher/mentors.**
 - **Information related to placement and others.**

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

6.3.1 Curriculum Development

- **Curriculum is designed with focus on improved student learning through Outcome Based Education.**
- **Nitte Meenakshi Institute of Technology revises the Curricula for Engineering Programs at the UG and PG levels so has to meet and address challenges of the work place. The design and development of the curriculum includes:**
 - Offer conventional Engineering Courses for which there are good job opportunities. The courses are designed keeping in mind Programme Educational Objectives and Programme Outcomes.
 - Align courses with requirements of the Industry, the opportunities available in the R&D institutions and the requirements for pursuing higher studies.
 - Designing courses, considering curriculum of premier Institutions like IITs, NITs etc. are also considered.
 - Refer to the model curriculum defined by Professional Bodies like IEEE, ASME, IETE, AICTE etc.
 - Periodically revise course contents to keep them aligned with emerging technologies, and to incorporate feedback from Industries/Associations like NASSCOM/Alumni etc.
 - Periodically revise the course contents and introduces the new elective to address the gap in COs, POs & PSOs attainment.
 - Introduced program specific and Interdisciplinary Electives based on feedback/Suggestions from stake holders.
- **The following Boards/Councils/Committees have been formed to design the curricula according to the UGC Norms:**
 - Board of Governors.
 - Academic Council.
 - Boards of Studies.
 - Departmental Under Graduate & Post Graduate Committees.
 - Department Advisory Bodies.
- **Syllabi has been validated and approved by the Advisory Committee, BOS, and Academic Council which has the representation of all stakeholders.**

6.3.2 Teaching and Learning

- **Implementation of Outcome based Teaching & Learning (OBLT).**
- **Implementing the methodologies for world class education by modernizing teaching-learning processes.**
- **Student centric teaching & learning process is had been adopted.**
- **New faculty are trained with pedagogy and other faculty are trained in advanced pedagogy.**
- **Introduction of appropriate delivery methods such as course projects, programming assignments, case studies, flipped class, group discussions, debates, seminars etc for each course.**
- **The following committees will oversee the quality of Teaching & Learning:**
 - Department Undergraduate & Postgraduate committees.
 - Department Program Assessment Committees.
 - Department Advisory Bodies.
 - IQAC.
- **Periodically the above said committees will analyse the students' feedback, Course Exit Survey and COs, POs & PSOs attainment levels and suggest changes for Teaching & Learning Methods.**

6.3.3 Examination and Evaluation

- **Academic calendar is prepared well in advance before the start of the semester and made available to all the students, teaching and non-teaching staff and also made available in the college website. The academic calendar includes registration of the courses, CIE schedule, Drop and withdrawal of courses, examination schedule, attendance and CIE submission, last working date, holidays and results announcement date etc.**
- **Every semester the newly recruited faculty is given orientation about the examination process/scheme of evaluation.**
- **In the view of equal weight age for both CIE and SEE, the faculty has been given a complete autonomy to come out with innovative way of evaluating the student especially in the CIE component.**
 - **In addition to the conventional test the students are evaluated through surprise test, quizzes, mini projects, seminars, group discussions, industry case studies etc.**
 - **Effective rubrics have been designed for assessing the course project, the programming assignments, the case studies, the group discussions, debate and seminars in addition to MSE, SEE and surprise test. These assessment methods helped in measuring attainment of POs.**
 - **MSE & SEE questions are mapped to COs & blooms level, which will ensure quality question paper.**
 - **In laboratory courses the faculties are oriented to design experiments which will improve the thinking ability & skills in the students and similar exercise is done in the semester end exams.**
 - **MSE question papers are scrutinized by department under & postgraduate committee. SEE question papers are scrutinized by BOE which has external members. This enables to maintain question paper quality.**
 - **In the Semester End Examinations, external examiners also participate in QP setting, evaluations etc. to have transparency and fair evaluation.**
 - **Every department undergo academic audit once in a semester to ensure that the quality is maintained.**
 - **The answer books are bar coded. External examiners also participate in the evaluation of SEE answer books and practical examinations. These processes assure quality and transparency at the institutional level.**
 - **At the department level, CO & PO attainments are computed and analyzed.**
 - **Depending upon GAP analysis, further action will be taken**
 - **Automation of the examination cell to ensure timely declaration of results to keep the academic calendar on schedule.**

6.3.4 Research and Development

- **The college has a research council to monitor and address the issues of research/consultancy. Few recommendations implemented are:**
 - Taking up sponsored research projects from external funding agencies.
 - Stress on interdisciplinary research activities
 - Motivating faculty and UG & PG students to involve in sponsored research projects.
 - Encouraging students for publishing their work in National/International Conferences/Journals.
 - To develop innovative products, leading to patents.
 - Faculty carrying out research projects are given complete independence for execution of the research project.
 - Faculty is encouraged to bring sponsored projects from external funding agencies.
 - Faculty are provided complete support from the institution in terms of infrastructure, computational facilities, and specially allotted time for carrying out research.
 - Faculty carrying out research projects have been given some reduction in the work load. Policy has been worked out for giving additional incentives.
 - 100% financial support is given for faculty & students for publishing & patenting their work.
 - The faculty undertaking research and development work are given recognition and other incentives.
 - The revenue generated out of consultancy services are shared among the faculty involved. The ratio of sharing depends on the utilization of the resources in the institution.
 - Faculty are deputed to industries for a few months to undergo hands on learning in emerging technologies.
 - Study leave is granted with full salary to faculty pursuing higher studies like post-graduation, Doctoral programmes etc.
- **The institute has established a Patent Cell to help the faculty & students to file patents and to create awareness**
- **Apart from the Department's Research Centres, Institute has created 5 Multi-disciplinary Centres of excellence promote multi-disciplinary research in the areas of Small Satellites, Robotics, Nano Technology, Design & Process Simulation and Computational Fluid Dynamics.**

6.3.5 Library, ICT and physical infrastructure / instrumentation

- **Different committees are responsible for ensuring the quality enhancement of library, ICT and physical infrastructure. The library and computer labs have separate advisory committees comprising of faculty members, library in-charge, lab-in charge and other employees of computer lab and library. The committee ensures continuous up gradation of library and recommends purchase of new books, journals and magazines. The committee responsible for lab up gradation ensures maintenance of computers, purchase of new computers, updation of institute's website etc.**
- **Have separate department library with latest books, journals and journal database, class are equipped with A/V facility, separate internet laboratory for MBA students also with additional package coaching like systat, Advanced Excel, Tally.**
- **KOHA library management software has been deployed to automate the library transactions.**
- **Every user's ID card as well as every item of the Collection has been bar coded & the transaction (Issue/Return) will be done in a few seconds.**
- **Teachers will be encouraged to use ICT in the classrooms for effective teaching & communication between them and the students.**
- **Robust and scalable IT Infrastructure with 1600+ computers, 100 Mbps(1:1) internet connectivity and Wi-Fi facility.**
- **Modern infrastructural facility & laboratories.**
- **Adequate and well maintained infrastructure for curricular, co-curricular and extra-curricular activities.**

- **NMIT has well-defined policies and systems for human resource management. HR departments and units in organizations typically undertake a number of activities, including employee benefits/ recruitment/ training and development/ performance appraisal/ rewarding.**
- **The institution encourages the faculty to recharge themselves by attending orientation programmes conducted by other universities, participating in National and International workshops/symposia and presenting/publishing papers in National and International conferences/Journals. They are provided with financial support towards TA, DA, registration fees etc.**
- **The institute mandates the departments to organize faculty development programmes/workshops regularly.**
- **The institute conducts faculty induction/pedagogy programmes for the newly recruited faculty members in association with professional training Institutes.**
- **Since inception the institute has the policy of sponsoring the faculty for qualification improvements (M.Tech/Ph.D/etc) with full salary. Also it encourages the faculty to take up M.Tech/Ph.D programmes on part time basis also.**
- **Institute gives all the support to the faculty in getting the sponsored research projects/consultancy.**
- **NMIT is having faculty performance appraisal system to assess curricular & co-curricular activities:**
 - **College has online feed-back system on teachers by the students wherein the students give their view on teaching methodology adopted by the faculty.**
 - **Faculty will fill Self-Assessment report with HODs remarks.**
 - **The feed-back is addressed at the appropriate level i.e, DUGC, HOD's Dean and Principal based on the kind of information received from the feed-back.**
 - **The faculty is advised to improve the methodology of teaching by adopting new techniques, if needed he/she will be given mentoring/training by the senior faculty.**
- **The students are also advised and supported to present their research papers in the international and national conferences organized annually by the institute. Students have been provided training in the areas that are helpful for the employments like Tally, MS-Excel etc. Sessions on careers, making right choices in life, decision-making, aptitudes, choice of a career and more are conducted by the placement cell.**
- **Institute is having well defined hiring-planning and execution for recruitment of faculty.**

6.3.7 Faculty and Staff recruitment

- **As per AICTE requirement, staff-students ratio is 1:15 for UG. Despite being a young institute this ratio is maintained consistently. A ratio of 1:12 is maintained for PG. This takes care of research activities and executing funded projects. The ratio is maintained in spite of attrition, maternity, study leave etc.**
- **The institution fills up the vacancies as and when created by way of advertising in leading Newspapers and holding interviews by a panel of experts in the disciplines. University nominee and subject experts are invited for interviews for selection of faculty.**
- **Two levels of interviews are conducted. One at the department level and other at the college level.**
- **Similarly, non-teaching posts are also filled through advertisements and internal promotions.**
- **For non – teaching and administrative posts trade tests, written tests and personal interviews are conducted.**
- **The institution also provides opportunities to faculty and staff to upgrade their qualifications, which are required for better performance and career advancement.**
- **The institute management frames the policy and guidelines for appointment as per the AICTE guidelines.**
- **Additional increments are offered at the time of recruitment for candidates with strong teaching/ industry/ R&D experience and qualifications.**
- **Institute is also having well-defined faculty promotional policy.**

6.3.8 Industry Interaction / Collaboration

- **The college has taken several initiatives to closely interact with Industries such as deputation of Students to carry Internship Programs/ Post Graduate students for doing their projects/Inviting Experts from Industries to teach Industry specific courses, etc.**
- **The college has students' chapters of professional societies such as IEEE, ISTE, IETE, CSI, SAE, IE, ACCE(I), ICI etc. which interact with the industry and enable students to undertake collaborative projects.**
- **Being an autonomous institute, industry experts and the alumni are involved in the design of curriculum and the syllabus.**
- **Industry experts are teaching part of the course and Institute encourages adjunct faculty from industry.**
- **Departments are offering industry prescribed courses as electives.**
- **The placement cell arranges lectures and training programs for students in subject areas as well as soft skills through industry personnel.**
- **College mandates every student to either take-up internship programs in well-known industry/R&D departments or to undergo summer/self-study courses or take up minor projects in emerging areas.**
- **College has an IEDC cell which arranges lectures on entrepreneurship development, patenting, etc through industry personnel, NEN.**
- **College has MOUs with several industries/organisations like Texas Instruments, Infosys, Microsoft, Wipro, Cypress Semiconductors, DELL, EMC2, PIA, SAE, MSME, FKCCI, CMTI, NDRF, L& T Infotech, KPIT.**
- **Good number of students is carrying out their projects in industry.**
- **Companies like Infosys, KPIT, Wipro, TCS etc are regularly conducting faculty development programs on current technologies.**

6.3.9 Admission of Students

- **Admission of students is through common entrance test conducted by Karnataka Government, Comed-K, management and foreign students through EDCIL.**
- **The process of admitting students to various courses is carried out as per the norms laid down by the Department of Higher education, Government of Karnataka and AICTE. The admissions committee constituted for the purpose is entrusted with the task of monitoring the admission processes. The candidates are selected on the basis of merit, interviews and entrance tests. Students from all sections of society irrespective of caste, creed, class and gender are admitted thereby keeping to the objectives of education for all.**
- **75% of the UG seats are filled through Common Entrance Test conducted by KEA/COMED-K.**
- **80% of M.Tech seats are filled through Common Entrance Test conducted by KEA/GATE.**
- **50% of the seats of MBA & MCA are filled through Common Entrance Test conducted by KEA/MAT/CAT/KMAT.**
- **The remaining seats in the respective programs are filled by the managements by giving wide publicity through advertisements in print media, electronic media and through the college website.**
- **Allotment of the management seats is also based on performance of 12th standard examination in the relevant subjects for the UG program and in respect of PG programs based on the merit in the qualifying examination as well as the ranking obtained in the Common Entrance tests conducted by the Government of Karnataka (KEA)/PGCET.**

6.4 Welfare schemes for

Teaching	Free transportation to all the faculty members. Subsidized medical insurance scheme. PF benefits. Gratuity scheme. Loan facility from the VIVIDDHODESHA Multi-purpose co-operative society. Subsidized rent for campus staff quarters. Group medical insurance scheme.
Non-teaching	Free transportation to all the non-teaching staff members. Group medical insurance scheme. ESI scheme. PF benefits. Gratuity scheme. Loan facility from the VIVIDDHODESHA Multi-purpose co-operative society. Subsidized rent for campus staff quarters.
Students	Medical insurance scheme. Partial tuition fee waved off. Fee concession to meritorious and poor students.

6.5 Total corpus fund generated in INR

350 Lakhs

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	VTU/NPIU/S PFU	YES	IQAC
Administrative	YES	NPIU/SPFU	YES	IQAC

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

For UG Programmes Yes No

For PG Programmes Yes No

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

- Every semester the newly recruited faculty is given orientation about the examination process/scheme of evaluation.
- Institute publishes CIE & SEE examinations schedules in advance.
- In view of equal weightage being given for both CIE and SEE, the faculty are encouraged to come out with innovative ways of assessments.
- In addition to the conventional tests the students are evaluated through surprise tests, quiz, mini projects, seminars, group discussions, industry case studies etc.
- In some courses the questions of quiz & surprise test components are also oriented to prepare the students for competitive examinations like GATE/GRE/ UPSC exams.
- To improve the quality of the graduating students the faculty is trained to prepare the CIE & SEE question papers which reflect the programme outcomes.
- In the laboratory courses the faculty is oriented to design experiments which will improve the thinking ability & skills among the students and similar exercise is done in the semester end exams also.
- College has separate examination section for conduction, processing and execution of examination. This section is automated with software which captures the attendance, CIE and SEE marks and generates the records according to the given format. The software generates the list of the eligible students for writing the exams based on the input of attendance and CIE considering all the criteria for the examination.
- The software generates an admit card for the student by considering all the eligibility criteria.
- Examination process is barcoded.
- Software processes the results, SGPA, CGPA & reports are generated in the consolidated form for announcement on notice boards & website. The results are announced within one week of the last examination held.
- Software also automatically generates the grade cards, provisional degree certificate and transcripts. The software will keep track of credits earned by each student and prepares the nominal roll for the next academic year after considering criteria for vertical progression.

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

NA

6.11 Activities and support from the Alumni Association

- **Every year, institute with the office bearers of alumni association conducts alumni meet.**
- **During alumni meet, alumni share their feedback and suggestions to improve curriculum, facilities, placement, training etc.**
- **Alumni will also participate in Board of Studies, advisory committee; the institute utilizes their experience of the outside world while implementing the Outcome Based Educational activity.**
- **Alumni will assist the institute for getting internship, projects, placements, and training etc.**
- **Our alumni students actively take part in delivering guest lecture to our students, who work in top industries.**

6.12 Activities and support from the Parent – Teacher Association

- **The parent and teaching meeting will be conducted once in a semester to update academic status of students.**
- **Institute involves parents in various bodies like anti ragging committee etc. Institute tries to involve parents at different levels like in some events they have been invited as judges. Beside this, parents support by interacting with the various committee members that come for quality enhancement or inspection.**
- **Parents are part of BOS in discussing and framing the curriculum.**
- **Departments send questionnaires to parents on the curriculum / program educational objectives / learning outcomes to improve the curriculum to give outcome based educations, which is the prime focus of NBA"s accreditation process for autonomous colleges.**

6.13 Development programmes for support staff

- **Institute also emphasizes on the enhancement of skill of the support staff by organizing skill based workshops. There exist also the provisions for nominating the support staff members to attend the development workshops organized by other institutions with financial support.**
- **Regular seminars/ workshops/ training are conducted by the departments for continuous up gradation of support staff skills.**

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

- **The department of electrical has conducted an energy audit in the campus the following steps are initiated to conserve energy.**
- **Bring awareness among students/ staff and faculty to switch off lights /fans when not in use. To use ACs only when it is absolutely necessary.**
- **To operate the campus load near to unity power factors.**
- **All hostels are provided the solar water heaters.**
- **Rain water harvesting is being incorporated in all new buildings under construction. Action is being taken for the existing building also.**
- **Sewage treatment plant is in operation and the treated water is used for the gardens.**

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.

- **Introduction of faculty/ students Colloquium:**
 - Every department is conducting monthly faculty colloquium which will be based on current/ contemporary areas. Every month the faculty will be delivering talks on selected topics. The same will be notified to faculty and the students of the institute. All the faculty of the department, interested faculty of other departments and interested students will attend the talk.
 - Few departments have also started student colloquium. Interested students will deliver talks/ demos on emerging area at-least once in a month.
- **Impacts:**
 - Awareness about the colloquium topic among the faculty and the students.
 - Created an interest among the faculty and the students to work on the areas and presentations.
 - Created avenues for publications and funded projects.

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

- First year students have been exposed to opportunities they have and the professional competence they must develop during their orientation programs.
- Conducting orientation programs for the newly joined faculty.
- A course on soft skills, to improve verbal and non-verbal communication skills will be conducted with the support of English language laboratory.
- Personality development programmes/training programs are conducted as per the plan for second year students. These programs impart training on leadership styles and qualities.
- At the commencement of the third year students undergo soft skills/ technical skills/ numerical aptitude training programs/ etc.
- Special courses are arranged to bridge the gap between the industry requirements and the subject knowledge acquired in the college.
- Course contents are revised to keep them aligned with emerging technologies and to incorporate feedback from industries/associations like NASSCOM/Alumni etc.
- Introduced many programs specific and interdisciplinary electives based on feedback/ suggestions from stake holders.
- Upgraded/modernized the laboratories by procuring equipment which can be used for carrying out experiments in the State-of-the-Art technology and also by removal of obsolescence.
- Taken up sponsored research projects from external funding agencies and proposals have been submitted for more funding.
- Filed 8 Indian patents.
- The library has been strengthened by renewing the subscription of IEEE and Science Direct e-journals, procurements of latest reference books etc.

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

Best Practice -1

1. Title of Practice

Multi-disciplinary Research and development.

2. Objective of the Practice

- Objectives of the higher education in the present context have to be globally relevant. UG & PG students pursuing higher education besides focusing on lecture classes will have to participate in the pursuit of research and innovation.
- Pursuit of innovation requires the background of multidisciplinary research.
- Multidisciplinary research leads to improved opportunities and flexibility to the students to get better employment.

3. The context

In the present Indian system of higher education the different disciplines are treated as opaque walls, which hinder quality research and innovation to be part of higher education system. These walls need to be adequately porous so that a student pursuing in any discipline has to necessarily go beyond the frontiers of his own subject which enables him to seriously pursue knowledge of yet another discipline and in such an environment the horizon of research one pursues gets deeper leading to newer and innovative practices.

4. The practices

In the context of Indian higher education, if the departments work independently then the solution developed may not be feasible to meet the societal needs. Most of the societal requirements need expertise of several disciplines. In the above context NMIT has initiated the practice of multidisciplinary research. The faculty and students of different disciplines will come together to work towards a common goal. Multiple Center of Excellence in various areas has been established such as Centers of Small Satellites/Robotics/Nano Technology, etc. These centers provide research facilities and training for faculty and students drawn from various disciplines.

5. Evidence of Success

- Electronics & communication Engineering/Mechanical Engineering /Electrical Engineering /Computer Science Engineering faculty and students are involved in Twin - Satellite Program.
- NMIT has setup a unique ground station to track the satellites (NASTRAC) which has obtained an Indian patent.
- The vision based robots and their applications require professionals/ engineers of different disciplines like Mechanical Engineering, Electrical Engineering, Electronics & communication Engineering, Computer Science Engineering. The multidisciplinary group in NMIT developed several vision based robots for various applications. Students have developed a pick & place robot and OFC link which are kept as permanent exhibits at Birla Science Center, Hyderabad.
- The first Institution to introduce multi-disciplinary course on robotics with laboratory (Lego Mindstorm & Tetrix) as an elective for 3rd semester B.E students on the lines of few US/European Universities.

- **Started national MEMS design center in the year 2009 and become as a nodal center and actively participating in the collecting the designs for the development of MEMS chip under INUP programme, CeNSE, IISc, Bangalore in collaboration with NPMASS, India.**

6. Problems encountered and Resources Required

It is difficult to co-ordinate students drawn from different disciplines to undertake interdisciplinary research. Since UG students actively participating in R&D work leave the college after their graduation, continuing the projects undertaken requires financial support to retain them after their graduation. This requires some additional financial resources and availability of senior faculty.

Best Practice -2

1. Title of Practice

Facilities for Self-Learning/ Life-long Learning.

2. Objective of the Practice

To enhance the self-improvement through continuous professional development and life-long learning.

3. The context

In order to excel in a professional career, we believe it is essential that graduate need to be true to his/her authentic self and use their own strengths. Developing self-knowledge enhances the abilities of the students and enables them to give their very best.

4. The practices

NMIT has initiated the following practices towards life-long learning

- **Mandatory internship program for UG & PG Students/ self-study course.**
- **Effective delivery methods like course project/case studies/ assignments.**

5. Evidence of Success

- **The engineer as the professional knowledge worker who is prepared for the changing nature of occupational requirements.**
- **Graduate with ability to learn over a lifetime as a necessary ingredient for success.**

6. Problems encountered and Resources Required

- **Reputed industries are not able to offer internship to the UG students for short duration.**
- **Tight academic schedule which is a hurdle for learning activities.**

7.4 Contribution to environmental awareness / protection:

- The college has developed a lot of greenery in the campus by developing lawns and gardens. It has taken steps to maintain the trees in the campus. It also takes up tree plantation programs.
- Solar water heaters are provided for all the hostels to conserve energy.
- Has set up a sewage water treatment plant to recycle the waste water for the purpose of gardening.
- Energy audit has been done to find the leakage and to use energy efficiently by the use of automatic devices / equipment to save energy.

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:

- S1. Supportive management, committed faculty & staff and motivated students.
- S2. Strong focus on excellence in education, research and promotion of innovation & entrepreneurship.
- S3. Youngest engineering college in the country to be conferred the prestigious autonomous status by UGC, New-Delhi in the year 2007.
- S4. Accreditation of the college by National Assessment and Accreditation Council (NAAC) for a period of 5 years starting from 2014-15.
- S5. Accreditation of 4 UG programs under Tier-1 scheme (As per Washington Accord) of National Board of Accreditation.
- S6. Availability of faculty in all required positions. High qualification experience of the faculty comprising 53 Ph.Ds predominantly from IISc, IITs & NITs. Ongoing PhD work of 64 faculty members & in different research centers of NMIT as well as in other institutions of eminence.
- S7. Recognition of ten departments as research centres by VTU / Mysore University.
- S8. Successfully implementation out-come based educational process.
- S9. Inter-disciplinary research carried out by faculty and students. NMIT is a unique institution which has established five Multi-Disciplinary Research Centres viz Center for Small Satellite Research, Center for Robotics Research, Center for Nanomaterial & MEMS, Center for Computational Fluid Dynamics and Center for Design Engineering & Process Simulation.
- S10. Sponsored research projects amounting to Rs. 7.5 crores sanctioned by different reputed National Funding Agencies such as DST, DIT, AICTE, DRDO, VGST, IEEE, VTU etc.
- S11. Innovation and Entrepreneurship Development Cell (DST) and Business Incubator (MSME) have been established to encourage the entrepreneurship among the students.
- S12. Collaborations in R&D with North Dakota State University-USA, Indo-Korean Institute of Science & Technology, ISRO, Indian Institute of Science, NITK, Fluidyne etc.
- S13. Unique scheme of deputing UG/ PG Students to Industry/ R&D Organizations /IISc/ IITs/ NID for a minimum period of 6 weeks internship qualifying for academic credits.
- S14. Excellent industry-institution interaction which resulted in placement of 90% of the eligible students.

- S15. Adequate and well maintained infrastructure for curricular, co-curricular and extra-curricular activities which include NCC/ NSS/ rotract/ sports/ cultural clubs/etc.**
- S16. Well established library with adequate books and journals conforming to AICTE/UGC requirements. Digital library with subscription to E-Journals through the INDEST consortium. Rich E-learning resources from Stanford, MIT, Berkeley, Purdue, NPTEL etc.**
- S17. Cordial and harmonious relationship with all stake-holders.**
- S18. Robust and scalable IT infrastructure with 1600+ computers, 100 Mbps (1:1) internet connectivity and Wi-Fi facility.**
- S19. Residential and has separate girls & boys hostel facility for more than 1700 students with in-house mess and faculty quarters on the campus.**
- S20. Good participation of students in co-curricular and extra-curricular activities at International/ National Level.**

Weaknesses:

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

Opportunities:

- O1. Improve quality of research by increasing interactions with industry and R&D organizations.**
- O2. Increasing interaction with reputed institutions by sharing resources and undertaking joint research projects.**
- O3. Strengthening interaction with alumni to facilitate more connects with the industry.**
- O4. Creating training facilities to improve teaching capabilities of faculty.**
- O5. Extending more academic help to assist weaker students especially belonging to SC/ ST/ OBCs.**
- O6. Starting new PG programs in emerging areas.**
- O7. Accrediting the remaining eligible UG & PG programs.**
- O8. Collaborating with foreign universities for immersion/ faculty program.**

Threats:

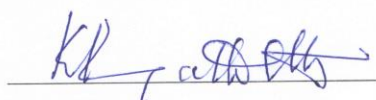
- T1. Difficulty to attract and retain faculty with PhD particularly in the engineering disciplines.**
- T2. Lack of interest among bright engineers to pursue research/ teaching as career.**
- T3. Ensuring financial viability of the institution as the norms for admissions are regulated by the State Govt.**

8. Plans of institution for next year

After understanding the Strengths, weakness opportunities and threats for NMIT we have following strategic plan for transforming NMIT into a quality technical education institute at the global level

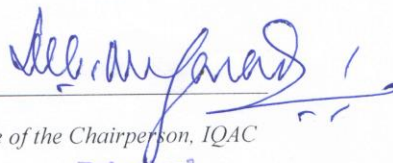
- To provide blended learning environments through Academic and Administration Reforms leading to improved learning outcomes for the students.
- To further improve our Laboratories /Research facilities/ Library to enhance the quality of teaching and learning process
- To enhance the research culture and entrepreneurship among the faculty and students
- To create an environment that enhances the interaction with reputed Indian/international institutions through mutual sharing of resources and joint research projects.
- To extend academic help to assist academically weaker students.
- To strengthen the competency of the faculty through Faculty Development Programmes and skills of technical staff and others through periodic training program.
- To Strengthen Industry/ Institute / Alumni Interaction enabling better placements and increased number of internships
- To obtain Accreditation for the remaining UG / PG Programs as and when they become eligible.
- To submit self-assessment report to the National Board of Accreditation (NBA) for BE – Mechanical Engineering and Civil Engineering programs.
- To conduct monthly faculty and student colloquium.
- To provide placement related training for the final year students.
- To submit more number of project proposals for national and state funding agencies.
- To submit more number of high quality research articles in reputed international journals/ conferences.
- To establish a patent cell to help the faculty & students to file patents and to create awareness.

Name Prof.K.A. Ranganatha Setty



Signature of the Coordinator, IQAC

Name Dr. H C. Nagaraj



Signature of the Chairperson, IQAC

Principal

Nitte Meenakshi Institute of Technology
Govindapura, Yelahanka,
BANGALORE-560 064.

Annexure-I

Internal Quality Assurance Cell (IQAC)

Academic Calendar (2015-16)

Aug – 2015	<ul style="list-style-type: none">• Registration of courses for odd semester.• Orientation program for the newly joined UG students.• Orientation program for newly joined faculty.• Placement related Training program for final year students.• IQAC workshop.
Sep – 2015	<ul style="list-style-type: none">• Orientation program for the newly joined PG students.• Meeting to discuss about the slow learners.• First Mid-Term Examination.• Assessment of Learning Activities.• Analysis of students' performance and identification of slow learners.• First online feedback from the students.
Oct – 2015	<ul style="list-style-type: none">• Second Mid-Term Examination.• Analysis of students' performance and identification of slow learners.
Nov – 2015	<ul style="list-style-type: none">• Second online feedback from the students.• Third Mid-Term Examination.• Assessment of Learning Activities.• Analysis of students' performance and identification of slow learners.
Dec – 2015	<ul style="list-style-type: none">• IQAC workshop.• Semester End Examination.
Jan – 2016	<ul style="list-style-type: none">• Faculty colloquium.• Registration of courses for even semester.
Feb – 2016	<ul style="list-style-type: none">• Faculty colloquium.• First Mid-Term Examination.• Assessment of Learning Activities.• Analysis of students' performance and identification of slow learners.• First online feedback from the students.
Mar - 2016	<ul style="list-style-type: none">• Faculty colloquium.• Second Mid-Term Examination.• Analysis of students' performance and identification of slow learners.
Apr – 2016	<ul style="list-style-type: none">• Faculty colloquium.• Second online feedback from the students.• Third Mid-Term Examination.• Assessment of Learning Activities.• Analysis of students' performance and identification of slow learners.
May – 2016	<ul style="list-style-type: none">• Conducting the Academic Audit• Semester End Examination.• IQAC workshop.
Jun – 2016	<ul style="list-style-type: none">• Registration of courses for summer semester.• Conducting the Academic Audit• IQAC workshop.• Internship /summer workshop/ Add-on courses.
Jul – 2016	<ul style="list-style-type: none">• Meeting for monitoring the accreditation status.• IQAC workshop.• Internship /summer workshop/ Add-on courses.

(H.C.Nagaraj)

Signature of the chairman, IQAC

PRINCIPAL
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YELAHANKA, BANGALORE - 560 064.

Annexure -II

Alumni survey									
		2012-13		2013-14		2014-15		2015-16	
PO NO	QUESTIONS	Total	Satisfactory	Total	Satisfactory	Total	Satisfactory	Total	Satisfactory
PO 1	1,3,5,9,12	20	20	64	55	90	78	176	163
PO 2	3,4,5,9	20	19	64	47	90	77	176	146
PO 3	3,4,5,9,12	20	18	64	54	90	80	176	162
PO 4	3,4,5,7,8,9,11,12	20	17	64	54	90	89	176	162
PO 5	3,5,7,9,11,12	20	18	64	54	90	83	176	162
PO 6	3,9,12	20	19	64	51	90	49	176	154
PO 7	5,7,9,12	20	20	64	46	90	81	176	140
PO 8	9,12	20	18	64	43	90	46	176	122
PO 9	4,7,9,10,11,12	20	19	64	49	90	89	176	150
PO 10	4,5,7,8,9,11,12	20	20	64	49	90	89	176	150
PO 11	5,12	20	19	64	41	90	66	176	126
PO 12	12	20	19	64	33	90	28	176	95
Total		240	226	768	576	1080	855	2112	1732
								Total collected	Total attained
								4200	3389

Alumni survey									
		2012-13		2013-14		2014-15		2015-16	
PO NO	QUESTIONS	Total	Satisfactory	Total	Satisfactory	Total	Satisfactory	Total	Satisfactory
PEO 1	4,5,9,10	20	19	64	38	90	72	176	160
PEO 2	10,11,12	20	5	64	38	90	81	176	140
PEO 3	8,11,12	20	2	64	41	90	84	176	149

Alumni survey				
PO1				
Weight	Total	Satisfactory	%	Attained
	350	316	90	4.5
PO2				
Weight	Total	Satisfactory	%	Attained
	350	289	82	4.1
PO3				
Weight	Total	Satisfactory	%	Attained
	350	314	90	4.5
PO4				
Weight	Total	Satisfactory	%	Attained
	350	322	92	4.6
PO5				
Weight	Total	Satisfactory	%	Attained
	350	317	91	4.6
PO6				
Weight	Total	Satisfactory	%	Attained
	350	273	78	3.9
PO7				
Weight	Total	Satisfactory	%	Attained
	350	287	82	4.1
PO8				
Weight	Total	Satisfactory	%	Attained
	350	229	65	3.3
PO9				
Weight	Total	Satisfactory	%	Attained
	350	307	88	4.4
PO10				
Weight	Total	Satisfactory	%	Attained
	350	308	88	4.4
PO11				
Weight	Total	Satisfactory	%	Attained
	350	252	72	3.6
PO12				
Weight	Total	Satisfactory	%	Attained
	350	175	50	2.5

Employer survey					
		2013-14		2015-16	
PO NO	QUESTIONS	Total	Satisfactory	Total	Satisfactory
PO 1	1,3,5,9,12	5	5	35	34
PO 2	3,4,5,9	5	5	35	31
PO 3	3,4,5,9,12	5	5	35	22
PO 4	3,4,5,7,8,9,11,12	5	5	35	26
PO 5	3,5,7,9,11,12	5	5	35	26
PO 6	3,9,12	5	5	35	33
PO 7	5,7,9,12	5	5	35	31
PO 8	9,12	5	5	35	34
PO 9	4,7,9,10,11,12	5	5	35	27
PO 10	4,5,7,8,9,11,12	5	5	35	22
PO 11	5,12	5	5	35	20
PO 12	12	5	5	35	17
Total		60	60	420	323
				Total collected	Total attained
				480	383

Employer survey					
		2013-14		2015-16	
PO NO	QUESTIONS	Total	Satisfactory	Total	Satisfactory
PEO 1	4,5,9,10	5	5	35	32
PEO 2	10,11,12	5	5	35	33
PEO 3	8,11,12	5	5	35	32

Employer survey				
PO1				
Weight	Total	Satisfactory	%	Attained
5	40	39	98	4.9
PO2				
Weight	Total	Satisfactory	%	Attained
5	40	36	90	4.5
PO3				
Weight	Total	Satisfactory	%	Attained
5	40	27	68	3.4
PO4				
Weight	Total	Satisfactory	%	Attained
5	40	31	78	3.9
PO5				
Weight	Total	Satisfactory	%	Attained
5	40	31	78	3.9
PO6				
Weight	Total	Satisfactory	%	Attained
5	40	38	95	4.8
PO7				
Weight	Total	Satisfactory	%	Attained
5	40	36	90	4.5
PO8				
Weight	Total	Satisfactory	%	Attained
5	40	39	98	4.9
PO9				
Weight	Total	Satisfactory	%	Attained
5	40	32	80	4.0
PO10				
Weight	Total	Satisfactory	%	Attained
5	40	27	68	3.4
PO11				
Weight	Total	Satisfactory	%	Attained
5	40	25	63	3.1
PO12				
Weight	Total	Satisfactory	%	Attained
5	40	22	55	2.8

Program Exit survey							
		2012-13		2014-15		2015-16	
PO NO	QUESTIONS	Total	Satisfactory	Total	Satisfactory	Total	Satisfactory
PO 1	1,3,5,9,12	122	116	90	90	176	176
PO 2	3,4,5,9	122	112	90	86	176	171
PO 3	3,4,5,9,12	122	116	90	90	176	176
PO 4	3,4,5,7,8,9,11,12	122	122	90	90	176	176
PO 5	3,5,7,9,11,12	122	122	90	90	176	176
PO 6	3,9,12	122	116	90	89	176	173
PO 7	5,7,9,12	122	116	90	87	176	172
PO 8	9,12	122	116	90	64	176	143
PO 9	4,7,9,10,11,12	122	122	90	89	176	175
PO 10	4,5,7,8,9,11,12	122	122	90	90	176	176
PO 11	5,12	122	116	90	84	176	167
PO 12	12	122	116	90	60	176	136
Total		1464	1412	1080	1009	2112	2017
						Total collected	Total attained
						4656	4438

Program Exit survey							
		2012-13		2014-15		2015-16	
PO NO	QUESTIONS	Total	Satisfactory	Total	Satisfactory	Total	Satisfactory
PEO 1	4,5,9,10	122	112	90	86	176	169
PEO 2	10,11,12	122	118	90	80	176	148
PEO 3	8,11,12	122	118	90	78	176	170

Program Exit survey				
PO1				
Weight	Total	Satisfactory	%	Attained
	388	382	98	4.9
PO2				
Weight	Total	Satisfactory	%	Attained
	388	369	95	4.8
PO3				
Weight	Total	Satisfactory	%	Attained
	388	382	98	4.9
PO4				
Weight	Total	Satisfactory	%	Attained
	388	388	100	5
PO5				
Weight	Total	Satisfactory	%	Attained
	388	388	100	5
PO6				
Weight	Total	Satisfactory	%	Attained
	388	378	97	4.9
PO7				
Weight	Total	Satisfactory	%	Attained
	388	375	97	4.8
PO8				
Weight	Total	Satisfactory	%	Attained
	388	323	83	4.2
PO9				
Weight	Total	Satisfactory	%	Attained
	388	386	99	5
PO10				
Weight	Total	Satisfactory	%	Attained
	388	388	100	5
PO11				
Weight	Total	Satisfactory	%	Attained
	388	367	95	4.7
PO12				
Weight	Total	Satisfactory	%	Attained
	388	312	80	4