

The Annual Quality Assurance Report (AQAR) of the IQAC
School of Electronics

Part – A

1. Details of the Institution

1.1 Name of the Institution

School of Electronics

1.2 Address Line 1

Takshila Campus

Address Line 2

Khandwa Road

City/Town

Indore

State

Madhya Pradesh

Pin Code

452001

Institution e-mail address

dr.abhaykumar@gmail.com

Contact Nos.

0731-22463754

Name of the Head of the Institution:

Dr Abhay Kumar

Tel. No. with STD Code:

0731-22463754

Mobile:

Name of the IQAC Co-ordinator:

Mobile:

IQAC e-mail address:

1.3 NAAC Track ID (For ex. MHCOGN 18879) **EC/66/RAR/146 dated 21-02-2014**

1.4 Website address:

Web-link of the AQAR:

For ex. <http://www.ladykeanecollege.edu.in/AQAR201213.doc>

1.5 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	Four Star		20/09/2000	“Five Years”
2	2 nd Cycle	B grade	2.57 out of 4	16/09/2008	“Five Years”
3	3 rd Cycle	A	3.09	21 .2. 2014	“Five Years”
4	4 th Cycle	N.A	N.A	N.A	N.A

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

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

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))

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- i. AQAR _____ Feb 2013 June 2013 _____ (DD/MM/YYYY)4
- ii. AQAR _____ 2013-14 _____ (DD/MM/YYYY)
- iii. AQAR _____ 2014-15 _____ (DD/MM/YYYY)
- iv. AQAR _____ _____ (DD/MM/YYYY)

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

(E.g. 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)

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

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

Autonomy by State/Central Govt. / University

University with Potential for Excellence UGC-CPE

DST Star Scheme	<input type="text"/>	UGC-CE	<input type="text"/>
UGC-Special Assistance Programme	<input type="text"/>	DST-FIST	<input type="text"/>
UGC-Innovative PG programmes	<input checked="" type="checkbox"/>	Any other (<i>Specify</i>)	<input type="text"/>
UGC-COP Programmes	<input type="text"/>		

2. IQAC Composition and Activities Check

2.1 No. of Teachers	<input type="text" value="0"/>
2.2 No. of Administrative/Technical staff	<input type="text" value="0"/>
2.3 No. of students	<input type="text" value="0"/>
2.4 No. of Management representatives	<input type="text" value="0"/>
2.5 No. of Alumni	<input type="text" value="0"/>
2.6 No. of any other stakeholder and community representatives	<input type="text" value="0"/>
2.7 No. of Employers/ Industrialists	<input type="text" value="0"/>
2.8 No. of other External Experts	<input type="text" value="0"/>
2.9 Total No. of members	<input type="text" value="0"/>
2.10 No. of IQAC meetings held	<input type="text"/>
2.11 No. of meetings with various stakeholders:	No. <input type="text"/> Faculty <input type="text"/>
Non-Teaching Staff	<input type="text"/>
Students	<input type="text"/>
Alumni	<input type="text"/>
Others	<input type="text"/>
2.12 Has IQAC received any funding from UGC during the year?	Yes <input type="text"/> No <input type="text"/>
If yes, mention the amount	<input type="text"/>

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

2.14 Significant Activities and contributions made by IQAC

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
<input type="text"/>	<input type="text"/>

* Attach the Academic Calendar of the year as Annexure.

2.15 Whether the AQAR was placed in statutory body Yes No Management Syndicate Any other body

Provide the details of the action taken

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	1	0		
PG	5	0	4	5
UG	0	0		
PG Diploma	0	0		
Advanced Diploma	0	0		
Diploma	0	0		
Certificate	0	0		
Others	0	0		
Total	6	0	4	5
Interdisciplinary	5	0	4	5
Innovative	1	0	1	1

1.2 (i) Flexibility of the Curriculum: CBCS (Core/Subject Elective/Generic Elective)

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	5
Trimester	0
Annual	0

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

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

*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.

Revision and updation of syllabi is accomplished every year. Input from Academic peers and Industry peers are periodically taken both online and offline. The major aim of updation is to remove obsolence and add up new technology courses.

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

Nil

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty	Total	Asst. Professors	Associate Professors	Professors	Others
	05	3	0	2	0

2.2 No. of permanent faculty with Ph.D.

03

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
0	1	0	2	0	1	0	0	0	4

2.4 No. of Guest and Visiting faculty and Temporary faculty

1

6

2

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	00	0	0
Presented papers	00	00	00
Resource Persons	03	00	02

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

- Optimum use of ICT
 - Student's Google groups creation for every programme, Lecture plans, Assignment and online feedback forms are posted online using ICT resources
- Induction Program to make students aware about Facilities and Energy Conservation: Centralized Induction programme held every year at beginning of academic year.
- Faculty serves as Course Coordinators/Mentors
- Organization of Assessment Workshops
- Departmental Library as learning resource
 - List of books and publications posted on <http://www.elex.dauniv.ac.in/student.php>
- Implementation of CBCS
 - Total choice of 50 courses across 6 departments
- Innovative M.Tech Programmes
- M.Tech (Mobile Computing Technology) is funded by UGC under Innovative Programme Category (2008-13, funding : 50 lakhs)
- Coursework PPT's Bank and Ebooks
- Ebooks, PPTs of faculty and students are posted on www.elex.dauniv.ac.in/CourseMaterial.php
- Remedial classes taken by M.Tech students for academically weak MSc. students

- M.Tech Project Assessment Model is in place
- Development of In-house student's feedback software and its use.
- 2nd year M.Tech. Students are given complete guidelines for project work.
- M.Tech. Students are encouraged to do their major projects in reputed companies or academic institutes
- Teachers are encouraged and supported to attain higher qualifications and attend training programs for self-development
- Alumni meets are conducted periodically
- Teacher-Parent meeting are conducted annually

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

190

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

- Teachers use ICT for classroom lecture delivery.
- Grading System as per IIT norms
- Purely internal system of examination
- Series of Tests, Quizzes
- Evaluated answer sheets are shown to students for transparency in evaluation
- Student's seminar is must in curriculum
- Second year M.Tech. Students send monthly reports. These reports are regularly evaluated and feedback are given for monthly progress.

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

02 (BOS)	02(Facult	00
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2.10 Average percentage of attendance of students

90%

2.11 Course/Programme wise distribution of pass percentage (Passed out in 2016):

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
M.Tech (Embedded Systems)	15	40%	53%	0	0	97
MTech (Spatial Information Tech.)	14	57%	47%	0	0	100
MTech (Mobile Computing Tech.)	19	37%	63%	0	0	100
MSc (Electronics)	5	20%	80%	0	0	100
MSc (Electronics & Comm.)	8	50%	50%	0	0	100

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

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	0
UGC – Faculty Improvement Programme	0
HRD programmes	01
Orientation programmes	0
Faculty exchange programme	0
Staff training conducted by the university	2
Staff training conducted by other institutions	1
Summer / Winter schools, Workshops, etc.	7
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	2	0	0	7
Technical Staff	4	0	0	0

Criterion – III**3. Research, Consultancy and Extension**

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

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3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	0	0	0	0
Outlay in Rs. Lakhs				

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	0	3	0	0
Outlay in Rs. Lakhs			2.5 lacs	

3.4 Details on research publications

	International	National	Others
Peer Review Journals	3	0	0
Non-Peer Review Journals	0	0	0
e-Journals	0	0	0
Conference proceedings	4	0	0

3.5 Details on Impact factor of publications:

Range Average h-index Nos. in SCOPUS

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations
Nil

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects				
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2015-16	University under scheme seed money for research	2.5 Lakhs	
Students research projects <i>(other than compulsory by the University)</i>				
Any other(Specify)				
Total			2.5 lacs	0

3.7 No. of books published i) With ISBN No. Chapters in Edited Books

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

UGC-SAP CAS DST-FIST
DPE DBT Scheme/funds

Grant of Rs 50 lacs from Department of Electronics & Information Technology (DeitY) for fellowship, Contingency and Equipment for 02 PhD Students under its 'Visvesvaraya PhD Scheme'

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

3.10 Revenue generated through consultancy

3.11 No. of conferences organized by the Institution : Nil

Level	International	National	State	University	College
Number					
Sponsoring agencies					

3.12 No. of faculty served as experts, chairpersons or resource persons: 04

3.13 No. of collaborations International National Any other

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs:

From funding agency From Management of University/College

Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	0
	Granted	0
International	Applied	0
	Granted	0
Commercialised	Applied	0
	Granted	0

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

Total	International	National	State	University	Dist	College

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

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

JRF SRF Project Fellows Any other

3.21 No. of students Participated in NSS events: Nil

University level State level
National level International level

3.22 No. of students participated in NCC events: Nil

University level State level
National level International level

3.23 No. of Awards won in NSS: Nil

University level State level
National level International level

3.24 No. of Awards won in NCC: Nil

University level State level
National level International level

3.25 No. of Extension activities organized :

Department also follows University's Green Initiative. Students participate in Shramdaan and plantation.

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

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				
Class rooms	5	0		5
Laboratories	5	0		5
Seminar Halls	0	1	Departmental	1
No. of important equipments purchased (≥ 1 -0 lakh) during the current year.	23	2		
Value of the equipment purchased during the year (Rs. in Lakhs)		1991879	UGC XII plan	
Others	13	0		13

4.2 Computerization of administration and library

- Partial Computerization of administrative work like admission etc is accomplished. For others like fee receipt, cash book entry etc, process is on. The books catalogue is computerized and student can know movement of the books using central computer.
- All faculty members have been provided computers, printers, Power back up UPS in their cubicles.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	10307		22	4839	10329	
Reference Books	1111		90	45280	1201	
e-Books						
Journals						
e-Journals						
Digital Database						
CD & Video						
Others (specify)						

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	95	04	LAN – 97	Nil	Nil	Nil	Nil	Nil
Added (2016)	17	-	Wi-Fi – 15	Nil	Nil	Nil	Nil	Nil
Total	112	04	112	Nil	Nil	Nil	Nil	Nil

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

1. Internet, Wi-Fi, Multimedia projection systems are used in all class rooms. Power point Presentations are available on the web site, which helped faculty to communicate the subject objectives and planning to students. All the central resources are available equally for students and teachers as well round the clock.

2. The entire building has been made Wi-Fi enabled so that students can access online resources 24X7 without having barriers of being in laboratories.

4.6 Amount spent on maintenance in lakhs:

i) ICT	0.47198	(Maintenance of projectors, Computer AMC)
ii) Campus Infrastructure and facilities	0.2350	Sliding door, Garden Work
iii) Equipments	4.35820	AC
iv) Others	0.78465	
Total:	5.84983	

Criterion – V**5. Student Support and Progression****5.1 Contribution of IQAC in enhancing awareness about Student Support Services**

- Informal guidance and counselling are continuously provided to students by different faculty members of the department
- Feedback is taken from the students at the end of each semester and counselling of concerned faculty, for improvement, is done by the head of the department

5.2 Efforts made by the institution for tracking the progression

- Fortnightly departmental meetings are held and proper record maintained
- Decisions are taken after discussing the issues in the meeting
- Committees are formed for sharing administrative and academic works viz. anti ragging, Time-table, Exam coordination, Library, Maintenance, girl's grievance
- Feedback is taken from the students at the end of each semester and counselling of concerned faculty is done by the head of the department
- Regular meetings of class representatives with HOD are held

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
0	116	12	0

(b) No. of students outside the state

14

(c) No. of international students

0

Men	No	%	Women	No	%
	87	68		41	32

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
89	9	2	33	0	133	84	4	2	26	0	116

Demand ratio 55:8 (For M.Tech courses)

Dropout %: 1%

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

No. of students beneficiaries

13

Remedial classes for preparation of National level exams viz. GATE and NET are held daily 4-6 pm. The classes are taken up by the teachers as well as the M.Tech students with high GATE score.

5.5 No. of students qualified in these examinations

NET SET/SLET GATE CAT
IAS/IPS etc State PSC UPSC Others

5.6 Details of student counselling and career guidance

1. Faculties help students to prepare for various competitive exams. Informal guidance and counselling are continuously provided to students by different faculty members of the department.
2. Course Coordinators and mentors are appointed for each course. Registers are maintained by each mentor for each group regarding guidance. Counselling given.

No. of students benefitted

All of the students are involved - 116

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
12	49	39	10

5.8 Details of gender sensitization programmes: Nil

5.9 Students Activities

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

State/ University level National level International level

No. of students participated in cultural events

State/ University level National level International level

5.9.2 No. of medals /awards won by students in Sports, Games and other events: 00

Sports: State/ University level National level International level

Cultural: State/ University level National level International level

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	2	Rs. 12000 per month each
Financial support from government (SC/ST)	0	0
Financial support from government (OBC)	4	87480
Financial support from other sources (AICTE – GATE Scholarship)	28 (1 st year) 30 (2 nd year)	Each student: Rs. 12400 per month
Number of students who received International/ National recognitions	0	0

5.11 Student organised / initiatives: Nil

Fairs : State/ University level National level International level

Exhibition: State/ University level National level International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed: A grievances resolution mechanism as follows:
Grievance from students are mostly received and tackled through discussion with Class Representative and Course -Coordinators of respective classes

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision:

- To create a Centre of Excellence for imparting state-of-the-art education, training and research in the field of VLSI Design, Embedded Systems, Digital Signal Processing, Computer Networking, Electronics and Communication Technology at Postgraduate and Doctoral level. We are at imparting quality technical education of international standard and imbibe skills for solving real life problems.
- To inculcate national/global perspective in attitude among students so as to equip them to face challenges ahead.
- To cultivate adoption of ethics, morality and healthy practices in professional life among students so as to enable them becoming better citizens of the country

Mission: To promote technical education and research in the important and fast growing areas of Communication, Signal Processing, Networking, VLSI and Embedded Systems, GIS, Mobile Computing Technology and Internet of Things (IoTs)

6.2 Does the Institution has a management Information System: No

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

6.3.1 Curriculum Development

Under ordinance 31, department has been vested power of design, develop and modify the course content, addition/deletion of courses. This is done through a departmental committee meeting- wherein a curriculum of all the courses are discussed at length- followed by peer review by experts and other stakeholders before finalizing syllabi for a particular course.

6.3.2 Teaching and Learning

The courses being run in the school draws students from varied disciplines such as computer science, Electronics and instrumentation. The content of every course maps about 40% of software aspects and 60 % of hardware aspects. The students belonging to computer science discipline feel comfortable in their domain of subjects whereas students of communication and instrumentation feel comfortable in their domain. To get all students even on the platform of academic content delivery, it is felt prudent to familiarize all students across domain so that there is left no scope of producing 'slow learners'. This is achieved by way of pre-sem preparations in which basics of courses across domain are delivered in initial 2-3 weeks time.

- Regular Faculty meetings are held by the HOD. Register is maintained (Enclosed)
- Innovative Method of learning are monitored by the HOD.
- A manual is prepared and distributed to M.Tech students for guidelines in their M.Tech major Project. (A manual was prepared to guide M.Tech. students about the work and ethics related to it. The manual describes in detail how to prepare the thesis as well. All the formats are given in it.)
- It is compulsory for the students to submit monthly reports about their projects. These are analyzed on monthly basis by the head of the department and respective Course Coordinator. Students are advised for improvement based on this analysis.
- Monthly reports are attached in Major Thesis for record.
- Students are encouraged to publish their work in form of papers and books.

6.3.3 Examination and Evaluation

- Academic system is purely internal including continuously evaluation which includes many tests, seminars, quizzes in periodic interval. Teacher of subject is also the paper setter of the subject. This ensure better academic quality.
- Evaluated exam copies, test copies etc. are shown to the students before finalizing the grades
- Result handling is done by the course coordinators under strict supervision of Centre Superintendent
- Examination Time table generation, student list generation, Invigilators, Attendance sheet, Records are kept with exam coordinator and respective course coordinators

6.3.4 Research and Development

M Tech students are assigned small classroom projects so that they can be trained with tools- both software and hardware. This helps them in taking up bigger research oriented one year project as a part of their curriculum.

Individual faculty members are encouraged to take minor and major research projects

6.3.5 Library, ICT and physical infrastructure / instrumentation

- Total number of computers for public access: One for departmental library, All the PCs in the department have internet connection , thus are connected to central library for econtents
- Total numbers of printers for public access: 01
- Soft copies of presentations used in classes are available on website for e-learning
- Participation in resource sharing networks/consortia (like INFLIBNET) done through Central Library
- Number of systems with individual configurations 88
- Computer-student ratio 1:1
- Dedicated computing facilities 10 numbers - provided to faculty
- LAN facility: Antivirus and Internet connections is provided through LAN
- Proprietary software : MATLAB, LabVIEW, Geomatica, ArcGIS, Keil for 8051, Kiel for ARM Microcontrollers, Tanner Tools, Python.
- Number of nodes/ computers with internet facility 105
- The region is Wi-fi enabled. Department recently purchased 17 PCs and 03 laptops
- Faculty and Staff are encouraged to download lectures from resources such as NPTEL, MIT and other web resources. Students are also given links on various topics.
- PCs available with printer for each faculty and non-teaching staff.
- All the labs and classes are ICT-enabled with internet connectivity.

6.3.6 Human Resource Management

Human resource of the department such as faculty and students of the department are encouraged to take up newer academic projects pertaining to their expertise. Department provides necessary equipment and contingent expenses.

6.3.7 Faculty and Staff recruitment

Done centrally by the University.

6.3.8 Industry Interaction / Collaboration

The interaction with industry of our department is all time high in that all of our M Tech students find 100% internship with them. They also provide stipend to the tune of Rs. 20,000 on an average to our students. One completion of one year project with them (internship), almost all of them are absorbed for placement there itself.

6.3.9 Admission of Students

Admission in MSc Courses: Merit basis

Admission in M.Tech. Courses: On basis of GATE/Qualifying marks merit

The department has ensured that admission–cum-counseling process should end up by last week of June every year so that regular classes could begin in the first week of July every year. This is in fact a daunting task which has been taken care of by the department by way of speedy processing of the data.

6.4 Welfare schemes for : None

6.5 Total corpus fund generated

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				
Administrative				

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

For UG Programmes: NA

Yes

No

For PG Programmes

Yes

No

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

NA

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

1. Workshop on “ARM Microcontroller Programming and Interfacing, ” speaker Prof. P. W. Dandaker, IIT Gandhinagar, on 29June-4july 2015.
2. Lecture on “IOT” By Dr. Rajkamal, Director MIST, Indore. Date 19th Sept. 2015.
3. Lecture on By Dr. Suresh Jain, Director Prestige Institute of Science & Technology, Indore. Date 22th August. 2015.
4. Lecture on “Compressed Sensing: Theory and Applications ” By Dr. Vivek Kanhangad, Assistant Professor Indian Institute Technology, Indore. Date 09th October. 2015.
5. Lecture on “Principal Component Analysis ” By Dr. Vivek Kanhangad, Assistant Professor, Indian Institute Technology, Indore. Date 19th October. 2015.

6.12 Activities and support from the Parent – Teacher Association

6.13 Development programmes for support staff

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

- * Energy conservation :

The cooling appliances installed in the department are of 5 star rating. The lights are of LED type

- * Water harvesting is done.

- * Plantation: A large number of samples have been planted in the recent past. The surrounding of the department is lush green with flowery plants overshadowing all across.

- * E-waste management: An e-waste disposal mechanism is in place in the university where every UTD gets the e-waste disposed through Store’s subsection of the university.

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.

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

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

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

The best practices followed in the department are:

i Credit based system

The school follows credit based academic system which helps in specifying hours of teaching, tutorials, and lab hours. This also allows adoption of CCE pattern of evaluation of students enrolled

ii Design and updation of curriculum

Under Ammended - Ordinance 31, department has been vested power of design, develop and modify the course content, addition/deletion of courses. This is done through a departmental committee meeting- wherein a curriculum of all the courses are discussed at length- followed by peer review by experts and other stakeholders before finalizing syllabi for a particular course.

i. Transparency in Evaluation

Every subject taught is evaluated in terms of conduct of two unit tests and one major tests, apart from quizzes and assignments. Each such activity is evaluated with suitable weightage and all test answer sheets are displayed to students for discussions and analysis. This also removes chances of re-evaluation.

ii. Conduct of Special Lectures, Seminars etc

During a given semester, numerous expert lectures are organized in specific domains in the form of seminar and expert lecture series for the benefit of students. Besides, university also organizes lecture series on many occasions on topics like: Personality development, Career counseling, Environment etc.

iii. Departmental Faculty meeting

Under Ammended- Ordinance 31 of the university governing academic and administrative matters of UTD, there is a provision of departmental committee which advices HOD on academic related matters. This departmental committee - consisting of all professors, senior most reader and senior most lecturer - deliberate

over all major academic issues and concerns. Meeting of departmental committee is held regularly.

7.4 Contribution to environmental awareness / protection

1. Students and teachers actively participate in Tree plantation programmes conducted regularly by University.
2. 'Shramdan-Diwass' held every semester to clean up the garden and the department.

7.5 Whether environmental audit was conducted? No

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

Five identified strengths from SWOT analysis

- **Ordinance 31 (in force from 1990)**
 - Flexibility to amend curriculum at department level
 - Examination and evaluation as per IIT pattern
 - Ammended - Ordinance 31 implemented from 2015 Batch onwards
- **Strong Industry Interaction**
 - For curriculum updation
 - For Student's Internship and Placement
- **PhD students are registered as per UGC Regulation 2009**
- **Admission to M.Tech based on all India GATE Examination**
 - GATE cutoff percentile on rise
- **Demand ratio for M.Tech Courses : 61 : 486 (Seats : Applications)**
- **Departmental Library**
 - Dedicated Computer for accessing eJournals
 - Book bank facility
- **Able to draw students across the country**

Five identified weaknesses:

1. Shortage of permanent faculty needing the reliance on Visiting and contractual faculty
2. Need of more student centric teaching approach

3. Need of additional technical staff for laboratories and projects
4. Need to upgrade and Maintain very high teaching and research standards due to inadequate permanent Ph. D. and experienced faculty due to inadequate budgetary support of the State
5. Need to upgrade and maintain very high laboratory standards due to inadequate budgetary support of the State which means reliance on Student fees only for upgrading and maintenance

Five opportunities:

1. New International and National level collaborations proposed to be undertaken in near future so as to enhance capacity building in knowledge creation
2. Research skill and aptitude of the faculty and the students used for new innovations.
3. Exploration of avenues for linkage of strength in VLSI, Embedded, Signal Processing and Mobile computing technology with the industry
4. Optimum use of flexibility approach to explore the unexplored domains so as to upgrade curriculum from time to time with the advent of ICT and virtual class room technology.
5. Enhanced use of animation and video lectures in class room lectures so as to build better bridge between teacher and the taught.

Five Challenges:

1. To become national and global leader in VLSI, Embedded, Signal Processing and Mobile computing technology areas
2. Imbibing Entrepreneur skills so that alumni can set their own units
3. New innovations and adaptability to emerging demands of identified areas.
4. Research work on VLSI less than 20 nm technology, 4G mobile technology and high performance signal processing
5. Mobilization of knowledge creation with knowledge propagation.

8. Plans of institution for next year

A. Plan on improvement in Infrastructure:

(i) School has modern Building with beautiful garden, fully Wi-Fi, Departmental Library with 10000+ books, 24x7 Internet, Multimedia/ LCD in every classroom/Lab and full power back up in the laboratories/class rooms. Since school runs 5 courses, improvement of infrastructure is going on.

(i) Plan is for improvement in the research activities, the department laboratories need to be strengthened. This will also help the present and future students of M.Tech./M.Sc. programmes.

(ii) Plan is for new laboratories in the broad area of Microelectronics & VLSI Design, Internet of Things, Wireless Communication, Spatial Database, RTOS.

(iii) Improvement in Placement Cell activities and Alumni Cell activities planned.

B. Plan for research activity & promotion:

(i) *MOUs and Collaborations*: In past, the department has signed MOU with I²IT Pune, RRCAT Indore and CEERI, Pilani which shall help promote vigorous research activities among departmental faculty. The department plans to sign MOU with IIT, Indore.

(ii) *Research projects carried out*: Many research projects have been sanctioned to departmental faculty by different funding organization. Recently in the year 2008, UGC has granted Innovative Programme Project to start M.Tech. (Mobile Computing Technology) with seed funding of Rs. 50 lacs. In addition, UGC has also sanctioned Rs. 19 lacs under Infrastructure grant and XI Plan. This will have positive impetus to R&D Development in the department.

Name _____

Name _____

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

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