School of Electronics (ELEX)

The Annual Quality Assurance Report (AQAR) of the IQAC School of Electronics (ELEX): Academic Year 2013-14

Part – A

School of Electronics

1. Details of the Institution

1.1 Name of the Institution

1.2 Address Line 1

Address Line 2

City/Town	
State	
Pin Code	
Institution e-mail address	
Contact Nos.	
Name of the Head of the Instit	ution:
Tel. No. with STD Code:	
Mobile:	
Name of the IQAC Co-ordinator:	
Mobile:	
IQAC e-mail address:	

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

http://www.dauniv.ac.in

1.4 Website address:

Web-link of the AQAR:

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

1.5 Accreditation Details

S1 No	Cycle	Grada	CGPA Four Star	Year of	Validity
Sl. No.	Cycle	Grade		CUFA	Accreditation
1	1 st Cycle	"В"	Four Star	2000	"Five Years"
2	2 nd Cycle	"В"	2.57	2008	"Five Years"
3	3 rd Cycle	"A"	3.09	2014	"Five Years"
4	4 th Cycle	NA	NA	NA	NA

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

21/11/2008

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 2010-11submitted to NAAC on 12-10-2011)

2013-14

i. AQAR	(DD/MM/YYY)4
ii. AQAR	(DD/MM/YYY)
iii. AQAR	
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 I	nstitution Yes No

(E.g. AICTE, BCI, MCI, PCI, NCI)

Type of Institution	Co-education	\checkmark	Men	Women	
	Urban	\checkmark	Rural	Tribal	
Financial Status	Grant-in-a	id	UGC 2(f)	UGC 12E	
	Grant-in-aid +	Self Fin	ancin	Totally Self-financ	
1.10 Type of Faculty/P	rogramme				
Arts Science Commerce Law PEI (Phys Edu)					
TEI (Edu)	Engineering	Hea	alth Science	Management	
Others (Specify) . Engineering Sciences					
1.11 Name of the Affil	iating Universit	y (for th	e Colleges)		

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

Autonomy by State/Central Govt. / University	ersity 🗸		
University with Potential for Excellence		UGC-CPE	
DST Star Scheme		UGC-CE	
UGC-Special Assistance Programme		DST-FIST	
	\checkmark		

UGC-COP Programmes

<u>2. IQAC Composition and Activities Check</u>

2.1 No. of Teachers	4
2.2 No. of Administrative/Technical staff	0
2.3 No. of students	4
2.4 No. of Management representatives	0
2.5 No. of Alumni	0
2. 6 No. of any other stakeholder and	0
community representatives	
2.7 No. of Employers/ Industrialists	0
2.8 No. of other External Experts	1
2.9 Total No. of members	9
2.10 No. of IQAC meetings held	
2.11 No. of meetings with various stakeholders	S: No. Faculty
Non-Teaching Staff Students	S Alumni Others
2.12 Has IQAC received any funding from UG	C during the year? Yes No No
If yes, mention the amount	
2.13 Seminars and Conferences (only quality re	elated)
(i) No. of Seminars/Conferences/ Worksh	nops/Symposia organized by the IQAC

Т	otal Nos.	International	National	State	Institution Level
(ii) Themes				
2.14 Signi	ficant Activiti	es and contributio	ns made by IQA0	C	

2.15 Plan of Action by IQAC/Outcome

2.15

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 \ast

Plan of Action	Achievements
* Attach the Academic Calendar	of the year as Annexure.
Whether the AQAR was placed in s	tatutory body

Management	Syndicate		Any other body
Provide the details		akan	
Provide the details	s of the action t	акеп	

Part – B

Criterion – I

<u>1. Curricular Aspects</u>

.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	0	0			
Diploma					
Diploma	0	0			
Certificate	0	0			
Others	0	0			
Total	6	0	4	5	
Interdisciplinary	5	0	4	5	

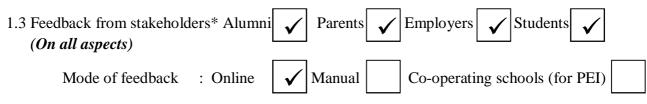
1.1 Details about Academic Programmes

Interdisciplinary	5	0	4	5
Innovative	1	0	1	1

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

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	5
Trimester	0
Annual	0



*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.

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

Nil

Criterion – II

2.1 Total No. permanent

2. Teaching, Learning and Evaluation

. of	Total	Asst. Professors	Associate Professors	Professors	Others
	05	3	0	2	0

faculty

)	03	
<i>)</i> .		

2.2 No. of permanent faculty with Ph.D.

2.3 No. of Faculty	Acat		Assoc	ioto	Profe	00000	Other	•0	Total]
Positions Recruited (R)	Asst. Profe		Profes		FIDIe	\$\$015	Other	. 5	Total	
and Vacant (V) during the year	R	V	R	V	R	V	R	V	R	V
	0	1	0	2	0	1	2	2	2	6

2.4 No. of Guest and Visiting faculty and Temporary faculty

6

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	03	03	0
Presented	03	03	
Resource Persons			01

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

- Optimum use of ICT
 - Google group creation for every course batch
- Induction Program to make students aware about Facilities and Energy Conservation
- Faculty serves as Course Coordinators/Mentors
- Assessment Workshop
- Energy Audit is done annually
- 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 subjects across 6 departments
- Innovative M.Tech Programmes
- M.Tech (Mobile Computing Technology) is funded by UGC under Innovative Programme Category (funding : 50 lakhs)
- PPT Data Bank and Ebooks
- Ebooks, PPTs of faculty and students are posted on <u>www.elex.dauniv.ac.in/Course</u> <u>Material.php</u>
- Remedial classes taken by M.Tech students for weaker MSc. students
- M.Tech Project Assessment Model is in place
- Development of In-house student feedback software and its use.

- 2.7 Total No. of actual teaching days during this academic year
- 2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)
 - Examination system is purely internal and is in practice since last 25 years in the department. Grading system- as per IIT pattern- is in vogue.
- 2.9 No. of faculty members involved in curriculum Restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum D

03 (BOS)	03(Faculty)	05 (CDW)
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as member of Board of Study/Faculty/Curriculum Development workshop

2.10 Average percentage of attendance of students

- 90%
- 2.11 Course/Programme wise distribution of pass percentage (Passed out in 2014):

Title of the	Total no. of Division					
Programme	appeared	Distinction %	Ι%	II %	III %	Pass %
M.Tech (Embedded Systems)	18	50	45	5	0	100
M Tech (Spatial Information Tech.)	17	47	53	0	0	100
M Tech (Mobile Computing Tech.)	21	34	62	4	0	100
MSc (Electronics)	6	33	34	33	0	100
MSc (Electronics & Comm.)	20	45	55	0	0	100

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

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	0
UGC – Faculty Improvement Programme	0
HRD programmes	0
Orientation programmes	0
Faculty exchange programme	0

Staff training conducted by the university	0
Staff training conducted by other institutions	1
Summer / Winter schools, Workshops, etc.	4
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	3	0	0

Criterion – III

3. Research, Consultancy and Extension

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

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	0	0	0
Outlay in Rs. Lakhs				

3.4 Details on research publications

	International	National	Others
Peer Review Journals	5	0	0
Non-Peer Review Journals	0	0	0

e-Journals	0	0	0
Conference proceedings	11	2	0

3.5 Details on Impact factor of publications:

Range	Average	0.5	h-index	Nos. in SCOPUS	
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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				
Students research				
projects				
(other than compulsory				
by the University)				
Any other(Specify)				
Total				0

3.7 No. of books publi	ished i) With ISBN No.	. 3 Chapte	rs in Edited Books
3.8 No. of University I	ii) Without ISBN I Departments receiving fu		
	UGC-SAP	CAS	DST-FIST
	DPE		DBT Scheme/fund
3.9 For colleges A	utonomy C	PE	DBT Star Scheme
	INSPIRE	CE	Any Other (specify)
3.10 Revenue generate	ed through consultancy	0	

Level	International	National	State	University	College		
Number							
Sponsoring							
agencies							
3.13 No. of co	aculty served as ollaborations	Interna	ational	ons or resour		2	Any other

3.11 No. of conferences organized by the Institution : Nil

3.15 Total budget for research for current year in lakhs:

Total 0	

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

Who are Ph. D. GuidesAnd students registered under them18	
3.19 No. of Ph.D. awarded by faculty from the Institution 1	
3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)	
JRF 0 SRF 0 Project Fellows 0 Any other 1	
3.21 No. of students Participated in NSS events: Nil	
University level State level	
International level National level	
3.22 No. of students participated in NCC events: Nil	
University level State level	
International level National level	
3.23 No. of Awards won in NSS: Nil	
University level State level	
International level National level	
3.24 No. of Awards won in NCC: Nil	
University level State level	
International level National level	

3.25 No. of Extension activities organized :

Students participate in Blood donation camps and other charity programs within and outside university. They also participate in University organized Computer awareness programmes, Khan River Cleaning Campaign, Environment awareness program. Department also follows University's Green Initiative. 3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

- Special Lecture on "Ozone Layer Depletion" was organized by department to commemorate the World Ozone Day on16th Sep, 2013 . The speaker was Dr. J. S. Pandey, Chief Scientist & Head, Climate Change, CSIR-National Environmental Engineering Research Institute (NEERI).
- An environment awareness drive Shramdaan- was organized every semester. Students, faculty and staff participate enthusiastically in cleaning the surroundings, planting new saplings and watering the plants.

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		00		
Class rooms	5	0		5
Laboratories	5	0		5
Seminar Halls	0	1	Departmental	1
No. of important equipments purchased $(\geq 1-0 \text{ lakh})$ during the current year.	23		UGC Innovative programme, UGC XI & XII plan, AICTE MODROB, UGC /AICTE research projects	
Value of the equipment purchased during the year (Rs. in Lakhs)				
Others (AC in Conference room, labs etc)	5	6		11

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.

	Existing		Newly	added	Total	
	No.	Value	No.	Value	No.	Value
Text Books	1012		119	76000	10240	
Reference Books	1003		17	23000	1020	
e-Books	NIL	NIL	NIL	NIL	NIL	NIL
Journals	NIL	NIL	NIL	NIL	NIL	NIL
e-Journals	NIL	NIL	NIL	NIL	NIL	NIL
Digital Database	NIL	NIL	NIL	NIL	NIL	NIL
CD & Video	NIL	NIL	NIL	NIL	NIL	NIL
Others (specify)	NIL	NIL	NIL	NIL	NIL	NIL

4.3 Library services:

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsin g Centres	Computer Centres	Office	Depart -ments	Other s
Existing	86	04	LAN - 80	Nil	Nil	Nil	Nil	Nil
Added (2014)	09	-	Wi-Fi - 15	Nil	Nil	Nil	Nil	Nil
Total	95	04	95	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. All departmental computer labs are equipped with Internet and Wi-Fi connectivity. 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	0.91
ii) Campus Infrastructure and facilities	0.63
iii) Equipments	.098
iv) Others	.32
Total:	1.958

Criterion – V 5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

5.2 Efforts made by the institution for tracking the progression

Student's progression tracking is done mostly by training and placement information kept at central TPO office of the university or at departmental TPO's office.

Others 0

5.3 (a) Total Number of students	UG	PG	Ph. I
	0	158	15

(b) No. of students outside the state

(c) No. of international students



% 28

27

	No	%		No
Men	125	72	Women	48

Last Year					This Year						
General	SC	ST	OB	Physically	Total	Genera	SC	ST	OB	Physicall	Total
			С	Challenged		1			С	У	
										Challeng	
										ed	
76	7	4	11	0	98	46	10	1	18	0	75

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

Dropout %: 1%

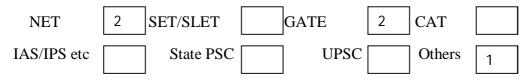
5.4 Details of student support mechanism for coaching for competitive examinations (If any)

No. of students beneficiaries

20

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



The above details are to best of information made available by students to departmental TPO cell.

5.6 Details of student counselling and career guidance

1. Faculty of the department also serves as mentors. In that they periodically meet

students to know about problems- both personal and academic- that they faced and offers them a possible realistic solutions.

2. Faculty members also help students to prepare for various competitive exams. Informal guidance and counselling are continuously provided to students.

No. of students benefitted

All of the students are involved - 158

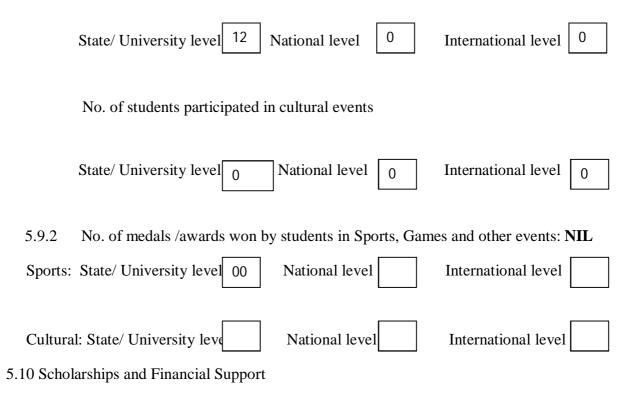
5.7 Details of campus placement

	Off Campus		
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
12	58	50	

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



	Number of students	Amount
Financial support from institution	1	Rs. 12000 per month
Financial support from government (SC/ST)	3	104826
Financial support from government (OBC)	9	261170
Financial support from other sources (AICTE – GATE Scholarship)	39	Each student: Rs. 8000 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 2

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 Class 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 Center 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

<u>Mission</u>: 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

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 elearning
- 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, ArsGIS, Keil for 8051, Kiel for ARM Microcontrollers, Eclipse, Eagle, Tanner Tools, Mentor Graphics, Cadence, Python.
- ▶ Number of nodes/ computers with internet facility 88
- The region is Wi-fi enabled. Department plans to purchase more PCs and 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 score

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

6.7 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

No

For PG Programmes



Yes

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

Yes

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. Expert lecture series is being conducted
- 2. Annual fest 'Zeal' -2014 organised

6.12 Activities and support from the Parent – Teacher Association

Parents are telephonically informed about their pupil's progress if not found satisfactory. Parents are encouraged to meet teachers and discuss their wards specific problems.

6.13 Development programmes for support staff

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

* Energy conservation :

The department has very few number of AC's installed (Only 08), therefore energy gets conserved

- * 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 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 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. Expert Lecture on 'Ozone layer Depletion', 16 Sep 2013
- 2. Students and teachers actively participate in Tree plantation programmes conducted regularly by University.
- 3. 'Shramdan-Diwas' 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
- 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 Wireless Communication, Digital

Communication, Advanced Embedded System, Spatial Database, RTOS to be set up.

(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
