National Assessment and Accreditation Council (NAAC)

ANNUAL QUALITY ASSURANCE REPORT (AQAR)

2018-19

INTERNAL QUALITY ASSURANCE CELL

Anna University, Chennai-600025.

Phone : 044 2235 7027, email : iqac@annauniv.edu,

Website : https://www.annauniv.edu/IQAC/

ANNUAL QUALITY ASSURANCE REPORT (AQAR)

JULY 2018 – JUNE 2019

This Annual Quality Assurance Report (AQAR 2018-19) has been prepared by the Internal Quality Assurance Cell (IQAC) of Anna University, for the four campuses, namely; CEG, MIT, SAP and ACTech campuses of Anna University, Chennai – 25. The report relates to the period 1st July 2018 – 30th June 2019 and has been prepared under the direction of the Vice Chancellor, Anna University, with inputs from various officials of Anna University, in accordance with the Guidelines issued by the National Assessment and Accreditation Council for the submission of AQAR in accredited institutions.

FOREWORD

I am pleased to present the AQAR of Anna University confining to the four campuses of Anna University in Chennai, namely, CEG, MIT, SAP and ACTech, for the year 2018-2019 in accordance with the National Assessment and Accreditation Council– An Autonomous Institution of the University Grants Commission, Guidelines, for the submission of Annual Quality Assurance Report (AQAR) in Accredited Institutions. The University has made significant strides in teaching, research and extension activities and has been recommended for Institute of Eminence status by the MHRD-UGC. The AQAR has been duly compiled and reported online.

I thank all the members of the Syndicate and every individual working at Anna University whose contributions have made Anna University to achieve this stature. I look forward for continual co-operation, advice and guidance from all sectors.

Prof.Dr.M.K.Surappa

VICE CHANCELLOR

AQAR REPORT REVIEW

ANNA UNIVERSITY

Aishe id :	**U-0439**
Submitted for :	**2018-2019**
Submitted Date :	**31/12/2019 08:52 PM**
Reference AQAR Link :	Click here
Over all Comments :	**AQAR Accepted**
Acceptance date :	**31/12/2019**

Yearly Status Report - 2018-2019

Part A	
Data of the Institution	
1. Name of the Institution	**ANNA UNIVERSITY**
Name of the head of the Institution	**Dr. M. K. SURAPPA**
Designation	**Vice Chancellor**
Does the Institution function from own campus	**Yes**
Phone no/Alternate Phone no.	**044-22353445**
Mobile no.	**7598230128**
Registered Email	**registrar@annauniv.edu**
Alternate Email	**vc@annauniv.edu**
Address	**Sardar Patel Road, Guindy, Chennai-600025.**
City/Town	**Chennai**
State/UT	**Tamil Nadu**
Pincode	**600025**

2. Institutional Status	
University	State
Type of Institution	Co-education
Location	Urban
Financial Status	state
Name of the IQAC co-ordinator/Director	Prof. Kurian Joseph
Phone no/Alternate Phone no.	04422357027
Mobile no.	9840393229
Registered Email	iqac@annauniv.edu
Alternate Email	diriqac@annauniv.edu

3. Website Address	
Web-link of the AQAR: (Previous Academic Year)	https://www.annauniv.edu/IQAC/TNUNGN10048%20-%20Anna%20University,%20Chennai,%20Tamil%20Nadu%20(AQAR%202017-18).pdf

4. Whether Academic Calendar prepared during the year	Yes
if yes,whether it is uploaded in the institutional website: Weblink :	https://www.annauniv.edu/IQAC/TNUNGN10048%20-%20Anna%20University,%20Chennai,%20Tamil%20Nadu%20(AQAR%202017-18).pdf

5. Accrediation Details

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
2	A	3.46	2014	24-Sep-2014	23-Sep-2019

6. Date of Establishment of IQAC	30-Oct-2012

7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture

Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Training Programme	27-Nov-2018 2	43
Training Programme	04-Dec-2019 1	40
Training Programme	15-Mar-2019 1	64
View File		

8. Provide the list of Special Status conferred by Central/ State Government- UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Anna University - Various Departments	UGC SAP	UGC	2019 365	16007592
Anna University - DAST, DoME	FIST	DST	2019 365	23500000
View File				

9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	View File
10. Number of IQAC meetings held during the year :	12
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	View File
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	No

12. Significant contributions made by IQAC during the current year(maximum five bullets)

Internal Quality Assurance Cell (IQAC) of Anna University, since its inception in 2012, has been consistently and actively involved in quality sustenance and enhancement activities, to name a few: • Organizing Quality related Training programmes for teaching and nonteaching staff members • Coordination for participation in NIRF Ranking, THE Ranking and QS Ranking • Facilitation for accreditation / approval of the UG/PG programmes offered by the University, apart from coordinating the NAAC reaccreditation process • Conduct of monthly internal

meetings with IQAC team members and Internal Quality Assurance Council Meeting chaired by Vice Chancellor • Setting / Updating the Benchmarks for the University under the various criteria of NAAC

View File

13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year

Plan of Action	Achivements/Outcomes
As per Road Map attached	As per the action taken report attached
View File	

14. Whether AQAR was placed before statutory body ?	Yes

Name of Statutory Body	Meeting Date
Syndicate Council	03-Sep-2018

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	No
16. Whether institutional data submitted to AISHE:	Yes
Year of Submission	2019
Date of Submission	12-Feb-2019
17. Does the Institution have Management Information System ?	Yes
If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	The Major Modules of Management Information System at Anna university are • Administrative Data Management System (ADaMS) • Student Examination Management Systems (SEMS) • Faculty Information System (FIS) Administrative Data Management System (ADaMS) : This Administrative Data Management System supports the following • Paid list, Defaulters list for every campus • No due (verification, Deptwise report, issued list, overall report) • DCB statements for every campus • Caution deposit bill Discontinue Bill generation • Excess, PMSS verification Bill generation • Faculty assign for

student Login • Admission List, Roll List • Students Duplicate Id card verification • Staff ID card application and verification • All campus no due overall list, Center wise no due list • Caution Deposit Refund pending list. • TC verification generation, Conduct entry, issued list Student Examination Management Systems (SEMS) : Intranet based online Academic Record Maintenance System (ARMS) and Student Examination Management Systems (SEMS) are used for updating the attendance of the students and for tracking the performance of the students in the assessment tests and examinations. This enables quick dissemination of information to all stakeholders including Vice Chancellor, Registrar, Deans of Campuses, Head of Departments, Chairpersons of Class Committees, Officials at the Placement Cell, Faculty members, Students and Parents depending on the associated rolebased security. Faculty Information System (FIS) : The University collects the general and professional details of all the faculty members into a database system. The main purpose of this initiative is to provide necessary details about the faculty members as and when required by the concerned authorities in time Student Mail annauniv.edu.in : Information for students related Fees Payment , Refund, Discontinue, Excess, Caution Deposit, Transfer, Password Change we will send a Email to your annauniv.edu.in Previous year Email service is provided to those who apply. from this academic year onwards, mail service is given for all admitted students. Smartcard PhD students : PhD students can apply the Smartcard form in this url after your data sheet process is completed, They can make a payment and get ID in Smarcard section in CPDE.

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

1.1.1 – Programmes for which syllabus revision was carried out during the Academic year

Name of Programme	Programme Code	Programme Specialization	Date of Revision
BE	CSE	Computer Science and Engineering	02/07/2018

		(RUSA)	

View File

1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
BE	Seventeen Programmes	02/07/2018	Two Hundred and Ninety Two	02/07/2018
MBA	Two Programmes	02/07/2018	Eight	02/07/2018
MSc	Ten Programmes	02/07/2018	One Hundred and Two	02/07/2018
MPhil	Six Programmes	02/07/2018	Eleven	02/07/2018
BTech	Eleven Programmes	02/07/2018	One Hundred and Seventy Seven	02/07/2018
BArch	One Programmes	02/07/2018	Twenty One	02/07/2018
ME	Forty Eight Programmes	02/07/2018	Two Hundred and Forty Seven	02/07/2018
Mtech	Nineteen Programmes	02/07/2018	Ninety Nine	02/07/2018
MCA	OneProgramme	02/07/2018	Fourteen	02/07/2018
MArch	MArch Three MPlan One	02/07/2018	MArch Nineteen MPlan Six	02/07/2018

View File

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
BE	Computer Science and Engineering (RUSA)	02/07/2018

View File

1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the University level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BArch	B.Arch	01/07/2018
BE	All BE programmes	02/07/2018
BTech	All BTech programmes	02/07/2018
MArch	All MArch programmes	02/07/2018
ME	All ME programmes	02/07/2018
Mtech	All MTech programmes	02/07/2018
MPlan	M.Plan	02/07/2018
MBA	MBA	02/07/2018

MCA	MCA	02/07/2018
MSc	2 Years (8 Applied Science Programmes)	02/07/2018
MSc	5 Years (3 Integrated Courses)	02/07/2018

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Tools for Sustainable Design	03/01/2018	29
Monsoon Assemblages Student Design Workshop	03/01/2018	10
Basics of Machine Learning using Python	03/01/2018	43
Big Data Analytics Business Intelligence	02/07/2018	1
Design of Electrical Apparatus using CAD Software	02/07/2018	7

View File

1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BTech	Chemical Engineering	20
Mtech	Industrial Safety and Hazards Management	21
BTech	Petroleum Engineering and Technology	6
BTech	Textile Technology	49
BTech	Apparel Technology	23
BTech	Leather Technology	96
Mtech	Footwear Science and Engineering	6
Mtech	Leather Technology	1
BE	Aeronautical Engineering	25
ME	Aeronautical Engineering	4
ME	Avionics	12
BE	AUTOMOBILE ENGINEERING (FT)	65
BE	Computer Science and Engineering	26
ME	VLSI Design and Embedded Systems	2
ME	Wireless Technologies	1

ME	Communication and Networking	1
BE	Electronics and Communication Engineering	8
BTech	Information Technology	11
BE	Mechanical Engineering	9
BE	Production Engineering	16
ME	Mechatronics Engineering	15
BTech	Rubber and Plastics Technology	13
BArch	B.Arch	119
MPlan	M.Plan	21
BE	Mechanical Engineering	21
BE	Materials Science and Engineering	73
ME	Internal Combustion Engineering	3
ME	Thermal Engineering (with specialization in Refrigeration and Air Conditioning)	3
ME	Solar Energy	1
MSc	Medical Physics	20
MSc	Materials Science	6
MSc	Applied Chemistry	6
BE	Computer Science and Engineering	47
BE	Electrical and Electronics Engineering	59
ME	Embedded System Technologies	4
ME	Power Electronics and Drives	2
BE	Industrial Engineering	56
ME	Industrial Engineering	3
BE	Manufacturing Engineering	58
MSc	Electronic Media	33
MSc	Electronic Media	28
Mtech	Laser and Electro Optical Engineering	1
MSc	Applied Geology	25
MBA	General Management	55
MBA	Tourism Management	40
MSc	Integrated Computer	77

	Science	
MSc	Integrated Information Technology	83
BE	Electronics and Communication Engineering	388
BE	Biomedical Engineering	47
ME	Applied Electronics	1
BE	Civil Engineering (English Medium)	56
BE	Civil Engineering (Tamil Medium)	45
BE	Agricultural and Irrigation Engineering	50
ME	Structural Engineering	20
ME	Irrigation Water Management	22
ME	Construction Engineering and Management	20
ME	Hydrology and Water Resources Engineering	18
ME	Integrated Water Resources Management	19
ME	Soil Mechanics and Foundation Engineering	24
ME	Environmental Engineering	17
ME	Transportation Engineering	15
ME	Environmental Management	20
BE	Geoinformatics	55
ME	Remote Sensing and Geomatics (Regular)	21
ME	Remote Sensing and Geomatics (SS)	17
Mtech	Coastal Management	19
BE	Printing Technology	31
BTech	Ceramic Technology	30
Mtech	Nanoscience and Technology	1
BTech	Pharmaceutical Technology	87
BTech	Food Technology	53
BTech	Industrial Bio-Technology	20
ME	Energy Engineering	5
BE	Industrial Engineering	32
BTech	Information Technology	11
View File		

1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained
Anna University Departments periodically collect feedback from its stakeholders viz., students, teachers, parents, employers and alumni in terms of its relevance and appropriateness of the curricula and syllabus. Feed back from the students and teachers are collected after the completion of each semester, from alumni on annual alumni day, from employers after the recruitment drives and from parents during PTA meetings. On receiving the feedback from the stakeholders, the responses are analysed at the respective Department Level and the concerns are addressed during the subsequent revision of the curricula and syllabus. In addition, representatives of students, alumni and industry are members of the Syllabus Sub Committee, Board of Studies and Academic Council that reviews and revise the Curricula and Syllabus. Teachers are provided with ample opportunities to participate in all the stages of the revision of the syllabus. The Feedback system enables the University to understand the expectations of industry so as to cater the needs of industry by creating competencies that required for industry through academic learning and reduce the gap between market demand and supply. Faculty provide input on changes necessary for upgrading the syllabus based on their expertise and teaching enrichment while carrying out the teaching learning process. The curricula of all programmes are revised once in three years to ensure relevance. Suggestions on flexibility in curriculum and need for skill oriented courses were considered in the Development of the Choice Based Credit System being implemented in all the Programmes offered by the University.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BE	**ALL BE and BTech**	**2690**	**169368**	**2690**
BArch	**BArch**	**118**	**1905**	**117**
ME	**ALL ME and MTech**	**2245**	**6712**	**1723**
View File				

2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution	Number of students enrolled in the institution	Number of fulltime teachers available in the	Number of fulltime teachers available in the	Number of teachers teaching both UG

	(UG)	(PG)	institution teaching only UG courses	institution teaching only PG courses	and PG courses
2018	10951	4015	538	273	193

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Toolsand resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
1034	245	20	103	80	20

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Mentors are allotted to every student at the beginning of the programme. The list is issued immediately after admission of the student to the programme. The students are offered counseling and advice by their mentors throughout the period of the programme. The following are the various aspects of the mentoring system: • Email and whatsapp groups are formed with the students and their mentor as the group members. This helps the mentors to communicate the circulars and other important instructions. Also, the students can represent their difficulties in the forum or in person with their mentors. • The mentors monitor the academic performance and also document the minutes of the MultipleCourses Committee Meetings for tracking the assessment record of the students. • The mentors also maintain a student record for every student under their custody which will contain the academic details, background qualification details and the cocurricular / extracurricular activity details of each student in his/her respective record. • The mentors guide the students and track their academic performance / maintain their academic documents until they receive their degree certificates after completion of the programme

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
14966	531	1:28

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
830	542	288	0	420

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2019	Dr. G. Kavitha	Associate Professor	Young Faculty Research Fellowship (YFRF)
2019	Dr.M.Manikandan	Associate Professor	Reviewer of Concurrency and Computation:Practice and Experience
2018	Dr. M. Ganesh Madhan	Professor	FELLOW of IETE (India)
2019	Dr.S.Piramasubraman	Assistant Professor	Certificate of

	ian		reviewing the journal Optics Communications
2018	Prof.N.RAJENDRAN	Professor	MidCareer Award
2018	Prof.N.RAJENDRAN	Professor	Fellow Of Royal Society Of Chemistry
2018	Dr. N. Rajendran	Professor	NACE International Section
2018	Dr.K.P.Jaya	Professor	Best Women Engineer
2019	Dr. K. Kulothungan	Associate Professor	Young Faculty Research Fellowship (YFRF) of Visvesvaraya PhD Programme of Ministry of Electronics Information Technology, MeitY, Government of India
2019	Dr. S. Sendhilkumar	Associate Professor	Young Faculty Research Fellowship (YFRF) of Visvesvaraya PhD Programme of Ministry of Electronics Information Technology, MeitY, Government of India
2018	Dr. S. Ganesan	Professor	Dr. Ramaiah Naidu Award
2018	Arivuoli D	Professor	Distinguished Nanoscientist Award
2018	S.MOORTHY BABU	Professor	HONOURABLE GUEST PROFESSOR, SHIZHUOKA UNIVERSITY, JAPAN
2018	Dr. R. Jayavel	Professor	Lecture on RINSNT
2018	Dr. R. Jayavel	Professor	RSC Highly Cited Author
2019	Dr. R. Jayavel	Professor	MRSI medal
2019	Dr. R. Jayavel	Professor	Visiting Professor at Shizuoka University
2019	Dr. R. Jayavel	Professor	Lecture on ICEMM
2019	Dr. R. Jayavel	Professor	Research Excellence
2018	Dr.K.Senthil Kumar	Professor	DR. A.P.J. Abdul Kalam Award from Government of Tamil Nadu

2018	Dr.K.Senthil Kumar	Professor	Champion of Aero Design Challenge,SAE India, Southern Section
2019	Dr. R. Gunasekaran	Professor	Young Faculty Research Fellowship Award
2019	Dr. P. T. V. Bhuvaneswari	Professor	Best Innovative Research Award by International Organization of Scientific Research and Development (IOSRD), India

View File

2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
BE	All BE programmes	2018	03/11/2018	06/12/2018
BTech	All BTech programmes	2018	03/11/2018	06/12/2018
BArch	B.Arch	2018	03/11/2018	06/12/2018
MArch	M.Arch	2018	03/11/2018	06/12/2019
ME	All ME programmes	2018	03/11/2018	06/12/2018
Mtech	All MTech programmesAll MTech programmes	2018	03/11/2018	06/12/2018
MSc	2 Years	2018	03/11/2018	06/12/2018
MSc	5 Years	2018	03/11/2018	06/12/2018
MPlan	MPlan	2018	03/11/2018	06/12/2018
MBA	MBA	2018	03/11/2018	06/12/2018
MCA	MBA	2018	03/11/2018	06/12/2018
BArch	B.Arch	2019	04/04/2019	03/05/2019
BE	All BE programmes	2019	04/04/2019	03/05/2019
BTech	All BTech programmes	2019	04/04/2019	03/05/2019
MArch	M.Arch	2019	04/04/2019	03/05/2019
ME	All ME programmes	2019	04/04/2019	03/05/2019

Mtech	All MTech programmes	2019	04/04/2019	03/05/2019
MPlan	MPlan	2019	04/04/2019	03/05/2019
MBA	MBA	2019	04/04/2019	03/05/2019
MCA	MCA	2019	04/04/2019	03/05/2019
MSc	2 Years	2019	04/04/2019	03/05/2019
MSc	5 Years	2019	04/04/2019	03/05/2019
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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
15	31513	0.05

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

https://http://cac.annauniv.edu/

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
REFER UPLOADED FILE	BArch	B.Arch	79	47	59
REFER UPLOADED FILE	BE	All UD B.E Programmes	1953	1551	79
REFER UPLOADED FILE	BTech	All UD B.Tech Programmes	768	695	90
REFER UPLOADED FILE	MArch	Geneal, Digital, Landscape	32	22	69
REFER UPLOADED FILE	ME	All UD M.E Programmes	1034	903	87
REFER UPLOADED FILE	Mtech	All UD M.Tech Programmes	262	233	89
REFER UPLOADED FILE	MBA	General, Tourism	138	123	89
REFER UPLOADED FILE	MCA	MCA	114	101	89

REFER UPLOADED FILE	MSc	Two Years	189	139	74
REFER UPLOADED FILE	MSc	Five Years Integrated	96	90	94
REFER UPLOADED FILE	MPlan	M.Plan	13	11	85

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2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

https://www.annauniv.edu/rcc/index.php

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

3.1.1 – Teachers awarded National/International fellowship for advanced studies/ research during the year

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
National	Dr. K. Abirami	Dr. D.S. Kothari Post Doctoral Fellowship	02/07/2018	UGC
National	Dr. D. Balashanmugam	Dr. D.S. Kothari Post Doctoral Fellowship	02/01/2019	UGC
National	Dr. M. Divya	Dr. D.S. Kothari Post Doctoral Fellowship	02/07/2018	UGC
National	Dr. Ramesh Kannan	Dr. D.S. Kothari Post Doctoral Fellowship	02/01/2019	UGC
National	Dr. Gayathri	PDF	02/01/2019	UGC

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3.1.2 – Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other fellows in the Institution enrolled during the year

Name of Research fellowship	Duration of the fellowship	Funding Agency
Anna Centenary Research Fellowship	365	Anna University
AICTE sponsored QIP	365	AICTE
ARDB	365	ARDB
BRNS	365	BRNS

CSIR	365	CSIR
DBT	365	DBT
DST INSPIRE	365	DST
DST PURSE	365	DST
DST WOS A	365	DST
DST TDP	365	DST
DST SERB	365	DST
DST CERI	365	DST
DST SEED	365	DST
VISVESVARAYA	365	DEIT
MAULANA AZAD NATIONAL FELLOWSHIP	365	UGC
Rajiv Gandhi National Fellowship	365	UGC

View File

3.2 – Resource Mobilization for Research

3.2.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Minor Projects	365	Various agencies, refer attachment	617	617
Major Projects	600	Various agencies, refer attachment	1056	1056
Industry sponsored Projects	365	KancheepuramMurugan Silks Handlooms Weavers Coop Society Ltd.	3	3

View File

3.3 – Innovation Ecosystem

3.3.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
Refresher Course on Patent Agent Examination	Centre for Intellectual Property Rights	20/08/2018

View File

3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Experimental Study on the Effectiveness of Waste Management and	Mohan Raj, Sandra Sebastian, Vignesh Kumar	CTDT, Anna University	02/07/2018	Student

Developing a Mobile application to aid the process				
Enhancing Rural Economy through Cascaded Energy systems for Agro products	G. Praveen Kumar	Daikin India at Refcold 2018 ,Ahmadabad	02/07/2018	Student
Best Poster award	Dr. V. Kumaresan	Department of Science and Technology, Govt. of India	02/07/2018	Teacher
First Prize for Cost Report	Team MIT Racing	SAE BAJA 2018 AVL	02/07/2018	Student
INSDAG National Award Competition for Students 2nd Prize	Srivin, Meenakshi and Ponvel	Institute For Steel Development Growth (INSDAG), “ISPAT PRAGATI BHAWAN”,793, ANANDAPUR, KOLKATA	02/07/2018	Student
Transparence 13.0 South Regional Winners	V.C.S. Srivetri	SaintGobain, Ethos India, info@ethosindia.in	04/02/2019	Student
Transparence 13.0 National Winners	V.C.S. Srivetri	SaintGobain, Ethos India, info@ethosindia.in	01/04/2019	Student
Winner HASTAG 2019,	B. Ramachadran	SEAD SRM Ramapuram	13/03/2019	Student
Winner HASTAG 2019,	C. Rajesh Kumar	SEAD SRM Ramapuram	13/03/2019	Student
View File				

3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsered By	Name of the Start-up	Nature of Start-up	Date of Commencement
CEGIAN	Mr. Kaushik Raja	CEG ALUMNI	XD Technologies	Tech based	02/07/2018
CEGIAN	Mr. Ram Prasath	CEG ALUMNI	Protovalley	Tech based	02/07/2018
CEGIAN	Ms. Sushantika,Ms. Ramya, Ms.Keerthika,Mr. Sibi,	CEG ALUMNI	Smart Wheel Chair	BioMedTech based	02/07/2018
CEGIAN	Mr. Russel Nickson	CEG ALUMNI	Webdefy	Tech based	02/07/2018

CEGIAN	Ms. Satya Priya	CEG ALUMNI	3D Printing	Tech based	02/07/2018
CEGIAN	Mr. Ashok Kumar	CEG ALUMNI	Arto Energy	Tech based	02/07/2018
CEGIAN	Mr. Arul Siva Murugan	CEG ALUMNI	yeN	Tech based	02/07/2018
CEGIAN	Dr. P.A. Manoharan	CEG ALUMNI	Robota Technologies	Tech based	02/07/2018
CEGIAN	Mr. R. Gokul	CEG ALUMNI	IntuDes	Tech based	02/07/2018
CEGIAN	Mr. Siva Prakash	CEG ALUMNI	Yet to form company	Tech based	02/07/2018

View File

3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
Aerospace Engineering	4
Automobile Engineering	5
Computer Technology	7
Electronics Engineering	11
Instrumentation Engineering	7
Information Technology	3
Production Technology	1
RUBBER AND PLASTICS TECHNOLOGY	5
Ceramic Technology	2
Department of Biotechnology	8
Chemical Engineering	6
Department of Applied Science and Technology	9
Textile Technology	1
Faulty of Architecture Planning	1
Department of Mechanical Engineering	16
Department of Chemistry	11
Department of Computer Science and Engineering	12
Department of Electronics and Communication Engineering	7
Department of Electrical and Electronics Engineering	11
Department of Industrial Engineering	6
Department of Information Science and Technology	11
Department of Manufacturing Engineering	2
Department of Management Studies	13

Department of Medical Physics	1
Department of Physics	6
Department of Civil Engineering	10
Printing technology	2
Department of Media Sciences	3

3.4.2 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
National	As per attachment	700	1.0
International	As per attachments	203	1.0

View File

3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
DEPARTMENT OF INFORMATION SCIENCE AND TECHNOLOGY	25
DEPARTMENT OF MANUFACTURING ENGINEERING	8
DEPARTMENT OF MANAGEMENT STUDIES	5
DEPARTMENT OF MECHANICAL ENGINEERING	5
DEPARTMENT OF MEDICAL PHYSICS	2
DEPARTMENT OF MEDIA SCIENCES	1
DEPARTMENT OF CHEMISTRY	1
DEPARTMENT OF CIVIL ENGINEERING	15
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING	1
DEPARTMENT OF CHEMICAL ENGINEERING	4
DEPARTMENT OF BIOTECHNOLOGY	8
DEPARTMENT OF AEROSPACE ENGINEERING	1
DEPARTMENT OF PRODUCTION TECHNOLOGY	1
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING	19
DEPARTMENT OF ENGLISH	3
DEPARTMENT OF GEOLOGY	1

View File

3.4.4 – Patents published/awarded/applied during the year

Patent Details	Patent status	Patent Number	Date of Award
A system and method for classification of moving object during video surveillance	Published	299550	31/07/2018
Aerodynamic drag	Published	299588	03/08/2018

reduction of a hatch back car using base bleed			
One pot synthesis of novel skeletal modified diamine used as a curative and impact modifier for epoxy resins	Published	305656	18/01/2019
Gasphase recovery of hydrogen from hydrogen sulphide using photocatalysis	Published	308383	08/03/2019

View File

3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Details given in attached Excel file	Details given in attached Excel file	Details given in attached Excel file	2019	28	Details given in attached Excel file	4510

View File

3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Details given in attached Excel file	Details given in attached Excel file	Details given in attached Excel file	2019	20	4576	Details given in attached Excel file

View File

3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	93	7	0	0
Presented papers	93	7	0	0

View File

3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
92 departments as	925 consultancies	544 agencies as per	308762448

per list enclosed	as per list enclosed	list enclosed	

View File

3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
Renault Nissan Technology Business Centre India Private Limited	Career Opportunities in Mechanical Engineering – Women in Mechanical (WinMech)	Renault Nissan Technology Business Centre India Private Limited	1000000	5693
Renault Nissan Technology Business Centre India Private Limited	Employability Skill Enhancement Programme (ESEP)	Renault Nissan Technology Business Centre India Private Limited	5436000	1200
Renault Nissan Technology Business Centre India Private Limited	Scholarship	Renault Nissan Technology Business Centre India Private Limited	5400000	60

View File

3.6 – Extension Activities

3.6.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
UDHIRA	NCC Army Cancer Hospital	3	150
Halowings2019	NCC Navy Haemophilia and MulitipleDisability society, India	10	1400
KODAI	NSS Unit 4	5	70
UYIRPUBLOOD DONATION	NSS Unit 4	4	235
AATRAL	NSS Unit 4	6	400
STATE YOUTH PARLIAMENT	NSS	3	81
NSS ARAMSEI	NSS	4	60
NSS MEDICAL CAMP	NSS SHRI BALAJI MEDICAL TRUST	5	60
VIVEGA19	YRC and Orphanages / Homes in Chennai	5	42

YRC 7Day Special Camp 2019 (Unit 1 3)	YRC, Annai Vendravarasi Seva Trust and Nellikuppam (Near Thiruporur) Village People	4	62
YRC 7Day Special Camp 2019 (Unit 2 4)	YRC and Karunguzhi Town Panchayat People	6	64
View File			

3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
Best Program Officer , NSS	Dr.G.Kumaresan, Best Program officer	Anna university	200
Rotaract youth leadership award	Best Rylarian Award to Rtr. Pratheba	Rotary Club of Guindy	100
Rotaract youth leadership award	Best Rylarian Award to Rtr. Shivani. R	Rotary Club of Guindy	100
Rotaract youth leadership award	Best Rylarian Award	Rotary Club of Guindy	100
View File			

3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
SWACHH BHARATH	NCC NAVY CEG I and II	Cleaning	2	100
SWACHH BHARATH	NCC Anna University	Cleaning	2	40
Observance of 30th Road Safety Week	YRC Traffic Police, Chennai	Road Safety	3	74
Blood Donation Camp	YRC Blood Bank of Indian Red Cross Society, Chennai 8	Blood Donation Camp	2	121
View File				

3.7 – Collaborations

3.7.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
Erasmus International Credit Staff Mobility Training	10	European Commission	5

Foreign Technical Training Programme (FTTP)	13	Anna University	14
Internship Programme	37	Self Initiative	50
IOT Arduino Training Program	25	Partially supported by Host University	13
One semester Student Exchange programme	5	Partially supported by Host University, Fully supported by Host University	180
Research Work	1	Partially supported by Host University	30
Through MoU	10	Under MoU	2
View File			

3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
INTERSHIP	INTERNSHIP	Aptiv, Technical Centre India, Caterpillar India,GE India,Hewlett Packard,Ingersoll Rand,Rockwell,Thorogood,Valeo,Zoho,Nokia,,Wipro,CignaTTK Health Insurance,HDFC Bank,Lennox India Technology,Accolite,BNP Paribas,Duta,Micro Focus Software ,Morgan Sta	01/11/2018	30/04/2019	109
INTERSHIP	INTERSHIP	Amazon,Arcesium India ,Caterpillar India,,Citicorp Services ,Dalmia,Dow	01/05/2019	30/06/2019	128

		Chemicals,Fidelity Business Services ,Fourkites,Myntra,RBS,Saint Gobain,Samsung RD ,Samsung Semiconductor,Sap Labs ,Viasat India ,Visa Inc.,Accolite,Alation,Kone Elevator India			

View File

3.7.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
THIRTY THREE ORGANISATIONS	02/07/2018	AS PER ATTACHED FILE	1300

View File

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
29452	12343

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Existing

4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
AUTOLIB (Advanced)	Partially	5.2	2006

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	3148	3967233	2920	3482895	6068	7450128
e-Books	695	2931415	28	518845	723	3450260
Journals	95	314982	0	369791	95	684773

e-Journals	20000	6712482	0	13348225	20000	20060707

View File

4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platformon which module is developed	Date of launching e-content
Dr.T.V.Geetha	Data Base management System	SWAYAM	07/08/2019
Dr.T.V.Geetha	Data Structures	SWAYAM	07/08/2019

View File

4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MGBPS)	Others
Existing	4300	110	2	60	60	1130	2750	2	50
Added	75	75	3	0	0	25	50	3	0
Total	4375	185	5	60	60	1155	2800	5	50

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

2 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Educational Multimedia Research Centre, Anna University	https://www.annauniv.edu/emmrc/index.php

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
15402	11202	14050	10200

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

Anna University has Standard Operating Procedures for maintaining and utilizing physical, academic and support facilities with Head/Director of the originating department as the regulating authority. Procedures for maintaining academic and research quality are clearly stated in the Regulations for Academic Programmes and Research. These regulations are finalised after consultations with different stakeholders at different levels and are available in the University website. Its implementation is controlled by the Directors of the Centre for Academic Courses and Centre for Research. Academic facilities in terms of Class

Rooms and laboratories are maintained by the respective HODs/Directors coordinated by Campus Deans. Hostel maintenance is done through an Executive committee lead by the Chief Warden. All requests for physical changes, alterations, renovations, new construction, repair, and maintenance of campus buildings, infrastructure and grounds are submitted through the department consultative committee. This will be evaluated by the Buildings committee and Finance committee for approval and/or implementation. Many knowledgebased services like that of Reference, Bibliography, MALIBNET service., DELNET, Reprography, CDROM Databases, Internet browsing and eservices are provided by the Central library of Anna University for its users as per the approved procedures controlled by the Director, Library. Ramanujam Computer Centre (RCC) is rendering computing infrastructure and services to the University for academic and administrative requirement. The Centre has established fibre based high speed campus network and a server Centre to provide common services such as email, web services, etc. for the University. The network facility has been enhanced with sophisticated WiFi connectivity throughout the campus. The Internet tree, infrastructure for accessing the campus network/Internet, is also part of this WiFi service. The Centre functions 24x7 basis on all 365 days. The Centre established and maintain University website. Recently, Video Streaming Server has been installed at the Centre, to render Video Conference/Videoondemand facility to the University Departments. This facilitates the students/faculty to participate lectures, delivered in any campus of the University. Campus Placement for Engineering / Technology / Management Students is managed by the Centre for University Industry Collaboration. They also coordinate Faculty Empowerment Programmes, Arrangements for Industrial Training, Industrial Visit and Industrial Project for Students. Training Programmes are organised for students on Core Competency Development and research in engineering and technology in collaboration with industries. Anna University Sports Board is ensuring the maintenance of Sports facilities as well as smooth and efficient conduct of Zonal / InterZonal tournaments involving all the institutions under Anna University. They also organize the National Sports Organisation programme for the total personality development of all students in order to serve the community towards its advancement. Maintenance of the building utility system including electrical, plumbing, ventilation, air conditioning, control systems, fire alarms and security systems is implanted through the Estate Office. Planning Permission Approval Building Approval for the existing buildings is obtained and maintained by the Estate Office under the leadership of a Senior Professor. They ensure uninterrupted power supply and many of the University Departments have the facility of industrial generators in the campus. Reuse of wastewater for gardening purpose

https://www.annauniv.edu/index.php

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Various schemes, Refer attachment	5	0
Financial Support from Other Sources			
a) National	Various schemes, Refer attachment	4564	0
b)International	Various schemes, Refer attachment	0	0

View File

5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
REMEDIAL COACHING CLASS	21/08/2018	100	10

View File

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passedin the comp. exam	Number of studentsp placed
2018	Career Counselling Programme	1000	1906	100	100

View File

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
16	14	30

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
253	2000	1539	200	2000	1500

View File

5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2018	169	Anna University	32 Departments	Various National / International Institutions	Various M.E, M.Tech, MBA, M.Sc, MS, PhD Research andms and etc

View File

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
NET	5
SLET	1
GATE	72
CAT	8
GRE	42
TOFEL	31
Civil Services	11
Any Other	36

View File

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
ANNA HOCKEY LEAGUE(AHL)	University Level Premier Hockey League	8
HANDBALL CHALLENGE LEAGUE(HBCL)	University Level Premier Hand Ball League	4
ANNA KHO KHO LEAGUE(AKL)	University Level Premier Kho Kho League	4
ANNA VOLLEYBALL LEAGUE(AVL)	University Level Premier Volley Ball League	4
ANNA SPORTS DAY CELEBRATED ON 13TH MARCH 2019	University Depts Level Sports Day	2000
NATIONAL SPORTS ORGANISATION(NSO) CAMP HELD AT OUR ANNA UNIVERSITY CAMPUS ON 1928 JUNE 2019	University Depts Level Camp	4500

View File

5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2019	SWIMMING GOLD 200M BREAST STROKE	National	1	0	0	S DANUSH
2018	SWIMMING SILVER 100M BREASTV STROKE	National	1	0	0	S DANUSH
2018	SWIMMING BRONZE	National	1	0	0	S DANUSH

	400M MIDRELAY					
2018	CUBE - SILVER - ASIAN CHAMPIONSHIP	International	1	0	0	ADITHYAA ANAND
2018	CARROM - 45TH JUNIOR NATIONAL	National	1	0	0	A AISHWARYA
2018	TENNI-KOIT - SILVER - 43ST SENIOR NATIONAL	National	1	0	0	MADHUMITHA A

View File

5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Student representatives are members in Class Committees, Syllabus SubCommittee, Hostel Committee, and Canteen Committee through which they suggest their ideas and discuss their issues. This empowers thestudents with leadership skills, team work and participatory decision making. The syllabus subcommitteefor each programme have two senior student representative to participate in the curriculum and syllabus formulation. Student representatives are also present in course committee, multiple course committee, and overall course committee and are involved in academic decisions related to course schedule, nature ofassessments and related matters. The class committee meetings held twice a semester for each class has 4students selected from both genders and are encouraged to actively participate in discussing the teaching learning process, the classroom facilities, etc. The minutes of these meetings are forwarded to Head ofconcerned Department and the institution for necessary action. It is mandatory for all students to participate in the online survey of Teacher evaluation and provide feedback at the end of each semester. Each hostel block (there are 25 blocks) has a student representative to coordinate with the Hostel Management in maintaining the block. Each hostel mess (there are 10 messes) have student representatives to cocoordinate with the hostel management in monitoring the food quality, quantity and waste. Students association are functioning at each department and they organize guest lectures, technical symposium and exhibitions every year. CIVILISATION by the Society of Civil engineers, CHEMFLUENCE by Department of Chemical Engineering, PETROVISION by Applied Science and Technology Department, BIOTECHCELLENCE and AVIDADHAM by Biotechnology Department, TEXPLOSION by Textile Technology, CONCERT by Ceramic Technology and CROSS LINX by Leather Technology, ARCHILOGUE by Department of Architecture are few examples. Also the departments have student chapters of national engineering associations such as Indian Institute of Chemical Engineers, Institution of Engineers, Society of Petroleum Engineers, Indian Ceramic Society etc. Students Associations and Arts Societies (SAAS) function at campus level with elected President, Vice President, General Secretary, Joint Secretary and Sports Secretary from class representatives of all the classes. The Art Society for students selected based on an interview in the Corporate Relations and organizational skills, represent the students community in anti ragging measures, organizing cultural events such as intra college festival (SAMPRADHA) and inter college festival (KALAKRITI), freshers party, organizing annual day celebrations, Independence day and Republic day celebrations. CEG Technical Forum with 41 student members organize a UNESCO

RecognizedTechnoManagement festival “KURUKSHETRA”.The events include technical workshops, projects, paper presentation and special technical events for school children. Athenaeum is an student body in MIT that promotes co curricular and extra curricular activities. ROTRACT Club of SAP provides students with a platform to interact with rotractors the world over. https://kurukshetra.org.in/home,20http://www.mitindia.edu/en/athenaeum

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

Alumni Association of College of Engineering Guindy (CEG) is one of the oldest Alumni Association in the country functioning for past 94 years with 25,000 members. It is registered under Tamil Nadu Societies Act XXVII (1975). Alumni Association functions in a two storey building in the campus with a seminar hall, dining facility, office space and guest rooms created through generous donation from Alumni at overallcost of 89.85 lakhs. CEG Alumni Association is associated with the following for the welfare of the students: • Supporting student activities such as cultural and technical festivals and events. • Periodic Endowment lecture • Career guidance programmes for students. • Financial assistance (both tuition and hostel fee) for needy students. • Public awareness programs. • Helping during national calamites. • Publication of monthly news letter highlighting the activities of the association. • Honoring distinguished Alumni and celebrates Alumni Day, Genesis Day, Teachers Day and Alumni sports Day. Alumni Association of the School of Architecture and Planning (SAPAA) was established in August 2007 for the dissemination and exchange of the experience, knowledge and talents amongst its members and the students. It enables to demonstrate design and construction and share professional experience, for the furtherance of fellowship amongst its members and advancement of knowledge in the general interest of the student community. Besides Annual Conventions Exhibitions are organized. The Alumni day is celebrated every year with sports cultural activities. Some of the Alumni act as visiting faculty and members of the thesis review committee. They also provide career counseling, Industry Institute Interaction and placement assistance. ACTECH alumini association was formally registered under TamilNadu Societies registration act in the year 2018. The departments also have separate alumni association. 1989 batch of ACTECH alumni students started separate society with a deposit of 30 lakhs and the interest from the society is given every year to economically weaker students Fees. Alumni Association of MIT provides Scholarships to the tune of Rs. 25 lakhs per annum at the rate of Rs.20,000/ per student for each year. They donate books to library and run a book bank inside library where students can borrow maximum of four books per semester. A biogas facility was provided for hostel buildings at Annex by which 2 LPG cylinders per day were saved. Alumni supports economically weaker students. A Borewell facility was provided by MITA which supplies water of approximately 75, 000 litres per day. Medical support and optical facility were provided to economically weaker students. Cycle and scooter were provided to physically challenged students. Soft skill Training programmes were conducted to students from rural area. Practical training programmes were arranged to students in their field and helped students in getting employment. https://www.aaceg.org/

5.4.2 – No. of registered Alumni:

25000

5.4.3 – Alumni contribution during the year (in Rupees) :

6117500

5.4.4 – Meetings/activities organized by Alumni Association :

20

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

Decentralization of academic activities: The student support and academic activities are decentralized by dividing the University into 34 departments distributed in 4 campuses managed by respective Deans and the respective HODs. 25 Centres with financial and functional autonomy focus on advanced research in emerging technical areas is a unique feature in Anna University. These include advanced national research centres like National Centre for Sustainable Coastal Management, National Hub for Healthcare Instrumentation Development and Centres of excellence. Centre for Technology Development and Transfer, World Intellectual Property Organization recognized Centre for International Property Rights, Centre for UniversityIndustry Collaboration, University Innovation Cluster etc. are unique support systems for enabling inventions and innovations of the University to reach the society through industries and commercialization. Decentralized Governance Model: Each department/faculty functions as a separate subunit, in deciding and implementing the studentcentric programmes and activities. All the Departments and Centres enjoy the functional autonomy. Each Department is having Departmental Consultative Committee (DCC) for administration purpose and Class Committees for academic needs. The matters at the department level are discussed by the HOD with the faculty team in the Department level meeting of the faculty held regularly to give the faculty an enormous sense of belonging and pride in the institution and to bring out the best in them. In addition to the meetings of the Heads of Departments Chaired by the Vice Chancellor, the meeting of the ViceChancellor with the staff at the beginning of every semester is indeed a reflection of the participative style of the Management. Such meetings provide the platform for open discussion with the teaching and nonteaching staff which, in turn, encourages the involvement of the staff for the improvement of effectiveness and efficiency of the institutional process. Participative Management: Apex body • Syndicate Other governing bodies: • Academic Council • Standing Committee • Board of Studies • Finance Committee • Budget Committee • Building Committee • Tender Scrutiny Committee • Executive Committee (for autonomous centres) The decision making is done in a transparent manner for effective functioning of the University. The Vice Chancellor is supported by the Registrar, Additional Registrar, Deans of Campuses, Chairmen of Faculties, Heads of Departments, Directors of Autonomous Centres, Controller of Examinations and Finance Officer in this process.

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Curriculum Development	**i. Design of an innovative curriculum that is flexible, responsive and caters to the needs of the learners with global relevance. ii. Design of a curriculum with indepth focus on fundamentals which seamlessly**

	integrates theory, practical, selfstudy and experimental learning. iii. Addition of courses that reflect the innovative, analytical and technical aspects of engineering providing both broad and in depth perspectives of the field for global competitiveness. iv. A teaching and learning environment that nurtures leadership qualities, teamwork and professional ethics. v. Emphasizing on researchbased, applicationoriented and productdevelopment projects in the curriculum. vi. Constitution of advisory committee that continuously monitors and provides inputs for curriculum improvement.

6.2.2 – Implementation of e-governance in areas of operations:

E-governace area	Details
Planning and Development	sharing of Laboratories and common facilities for optimum resources utilization.
Administration	Faculty Information System, Granting of Leave
Finance and Accounts	Salary Pay slip, General Provident Fund, Income Tax services
Student Admission and Support	Students Course registration Fee payment, Students Sanctification Survey
Examination	Students Registration, Fee payments, Students Examination Management System,

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2018	Dr.S.Ananda Kumar	ICAMDM 2018 20th International Conference on Advanced Materials Design and Mechanics USA International Conference on Advanced Materials Design and Mechanics USA	ICAMDM 2018 20th International Conference on Advanced Materials Design and Mechanics USA International Conference on Advanced Materials Design and Mechanics USA	217249
2018	Dr.S.Anbuchelian	ICIIC 2018 20th International	ICIIC 2018 20th International	217249

		Conference on Information and Intelligent Computing USAICIIC 2018 20th International Conference on Information and Intelligent Computing USA	Conference on Information and Intelligent Computing USA	
2018	Dr. S. Balasivanandha Prabhu	43rd ICACCInternational Conference and Exposition on Advanced Ceramics and Composites	ICACCInternational Conference and Exposition on Advanced Ceramics and Composites	331361
2018	Dr.G.Beulah Gnana Ananthi,	ICCCMSD 2018 20th International Conference on Concrete Construction Methods and Structural Design, USA	International Conference on Concrete Construction Methods and Structural Design, USA	217249
View File				

6.3.2 – Number of professional development / administrative training programmes organized by the University for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	Chemical Reaction Engineering II		27/05/2019	31/05/2019	39	0
2018	VLSI Design		16/11/2018	30/11/2018	19	0
2018	Compiler Design		19/11/2018	01/12/2018	21	0
2018	Automobile Engineering		26/11/2018	07/12/2018	25	0
2018	Software Engineering		09/11/2018	20/11/2018	17	0
2018	Design and Analysis of		22/11/2018	05/12/2018	18	0

	Algorithms					
2019	Material Science		21/01/2019	02/02/2019	26	0
2019	Power System Analysis		27/05/2019	31/05/2019	34	0
2019	Problem Solving and Python Programming		13/05/2019	17/05/2019	39	0

View File

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
64	105	01/07/2018	30/06/2019	365

View File

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
0	0	0	0

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Staff Quarters, On Duty Leave, Faculty Development Programmes, Health Centre, Loans and Advances, Swimming Pool, Gym, Day Care Centre, Alumni Club, Canteen, Anna GEM Science Park School,	Staff Quarters, Training Development Programmes, Health Centre, POSH, Loans and Advances, Swimming Pool, Gym, Day Care Centre, Canteen, Anna GEM Science Park School,	Health Centre, POSH, Swimming Pool, Gym, Day Care Centre, Alumni Club, Canteen, Anna GEM Science Park School, College Bus

6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

The Concurrent Audit, Local Fund Audit sections of the University conducts audit on all accounts operated by the Finance wing of the University Office, the accounts of all the Autonomous Institutions/ Centres and all the Regional Centres /Constituent Colleges every year and issues the Audit Report and Annual Accounts in respect of this University in the respective year. Further, the Principal Accountant General of India inspects the Audit Report and Annual Accounts in respect of this University issued by the Local Fund Audit section and raised the objections based on the said report. The Local Fund Audit objections to be settled by conducting audit joint sitting meeting frequently with the Local Fund Audit section. The replay with regard to AG audit objection have been obtained from the respective authorities and it being sent to the Principal Accountant General for settlement of Paras.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
VGN Developer Pvt.Ltd, Nextgen, Kaleesuwari Refinery Private Limited	10334000	Establishment of advanced laboratory for environmental education and research at CES, To Setup Advanced Rock Blasting Laboratory and Research

View File

6.4.3 – Total corpus fund generated

84111000

6.5 – Internal Quality Assurance System

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	No	Agency	Yes	IQAC CAC ACoE Anna University
Administrative	No	Agency	Yes	INTERNAL AUDIT SECTION, Anna University

6.5.2 – What efforts are made by the University to promote autonomy in the affiliated/constituent colleges? (if applicable)

Efforts are made by the University to promote autonomy in the affiliated/constituent colleges : 1.University Confer and Renew autonomous status to Affiliated / Constitution Colleges 2.Total Number of Institutions conferred autonomy by University is 60 as on date 27.12.2019

6.5.3 – Activities and support from the Parent – Teacher Association (at least three)

Parent – Teacher Meetings are conducted by the Heads of the Departments periodically. During the meetings, the following points are discussed: • Results of the previous EndSemester exams and the result analysis • Attendance of the students and their performance in the assessment tests during the semester • Scholarships, alumni guidance and other support available for students • Opportunities for the students with respect to internship, industrial trainings, etc. • Grievances / suggestions / complaints/ clarifications are also discussed by all stakeholders, namely faculty members, parents and students. Apart from the above , the PTA meetings also help in the following aspects: • The faculty members can identify the needy students through interactions with the parents • The parentscumalumni of Anna University, working in the relevant industry, voluntarily help to arrange guest lectures and industrial visits.

6.5.4 – Development programmes for support staff (at least three)

The Internal Quality Assurance Cell (IQAC) of Anna University organized a Training Programme on CORE COMPETENCY DEVELOPMENT For Non Teaching and Administrative staff memebers of Anna University on 4th of November, 2018. Dr. T. Thyagarajan, DirectorIQAC was the convenor of the Training Programme, and

the Coordinators were Dr K.V.Radha IQAC Campus Coordinator –ACTech and Dr.S.Meenakumari,IQAC Campus CoordinatorCEG SAP. The One day programme comprised of 4 sessions in all, each comprising of one and half hours each, starting from 9:30am to 4:45pm. Prof. Dr. J. Kumar, Registrar , Anna University, inaugurated the seminar, and delivered the inaugural address and highlighted the importance of Competency Development amoung Non Teaching and Administrative Staff members Prof DrK.Jayaraman , Former Registrar, Anna University, delivered the Special address. Dr. T. Thyagarajan, Director, IQAC and the Convener of the Training Programme, welcomed the participants and gave a brief overview on the need and value of the training programme to the Non Teaching Community of Anna University. Dr K.V.Radha IQAC Campus Coordinator –ACTech and Coordinator of the Training Programme, highlighted the topics to be covered in the following sessions namely: Dr. T. Thyagarajan, DirectorIQAC: Problem solving skills and Decision Making Dr. S. Thamarai Selvi, DirectorCTDT: A Pragmatic approach for preparing R D Proposal Dr. T. Kalaiselvan, Addl. Director – CUIC: Team Building For Institutional Excellence Dr. Sabitha Ramakrishnan, Deputy DirectorIQAC: Best Practices for Quality Assurance Case Studies Dr. Priya Sethuraman (Deputy Registrar Finance): Finance Management An outofbox Approach Dr. R. Raju, Director Academic Courses, delivered the valedictory address and distributed the Certificates to all the participants. Feedback was taken from all participants who expressed their satisfaction with the topics covered, resource persons and overall arrangements made for the training programme.

6.5.5 – Post Accreditation initiative(s) (mention at least three)

(1) Facilitation for NIRF ranking IQAC facilitated the NIRF team in the participation of Anna University in NIRF2019 rankings. The NIRF core committee was initiated by IQAC and periodical meetings were jointly coordinated by the DirectorIQAC and NIRF Nodal Officer for data collection and the computer facilities were arranged for uploading of data before deadline. Anna University got the following ranks in NIRF2019 under various categories: Sl. No. Category NIRF Rank awarded 1. University 07 2. Engineering 09 3. Overall 14 4. Architecture 12 5. Management 43 (2) Question Paper format in conformance with AICTE The question paper format has been revised as per the requirements of AICTE. The new format will include the CO relevant to each question. This will help to evaluate the CO attainment of each student as well as overall attainment of COs. (3) Student Attendance Log Book Revision The log book format has been revised to include the following: o POs, PEOs and COs will be available in the log book o CO attainment for the course will also be entered in the log book o The other details such as weightages given for various components of internal assessment have also been included (4) Consultation in DNEP In response to the initiative by MHRD, Anna University has prepared a detailed feedback on the Draft National Education Policy after several brainstorming sessions with all the officials of the University. IQAC facilitated the conduct of the meetings and also the consolidation of the feedback for DNEP feedback. The consolidated feedback was submitted to MHRD on 26.7.2019

6.5.6 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes
c)ISO certification	No
d)NBA or any other quality audit	Yes

6.5.7 – Number of Quality Initiatives undertaken during the year

Year	Name of quality	Date of	Duration From	Duration To	Number of

	initiative by IQAC	conducting IQAC			participants
2018	Training Programme on IMPORTANCE OF ASSESSMENT, ACCREDITATION AND RANKING IN HIGHER EDUCATION INSTITUTIONS, for IQAC/ NIRF/ NBA/ IOE Coordinators of University Departments, Anna University	27/11/2018	27/11/2018	28/11/2018	43
2018	Training Programme on Core Competency Development (for nonteaching Staff)	04/12/2018	04/12/2018	04/12/2018	40
2019	NBA Accreditation Tools and processes to assess attainment of Course Outcome and Programme Outcome and Continual Improvement	15/03/2019	15/03/2019	15/03/2019	60

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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Talk on Challenges in Architectural Prcitces for	08/03/2018	08/03/2018	110	15

Women Architects by Ar. Shilpa Sriprakash				
“White ribbon Campaign” and “Signature Campaign”	26/11/2018	30/11/2018	200	50
Talk on "Work-Life Balance" by Ms.Radha Subramanian	17/12/2018	17/12/2018	70	20
Talk on "Women in Academia & Research - Dual Role" by Dr. S. Rajeshwari	05/02/2019	05/02/2019	130	20
Walkathon for the staff and student of Madras Institute Of Technology, Anna University	01/03/2019	01/03/2019	180	20
Exhibition Of Products By Self-Help Group Women & NGO's	11/03/2019	12/03/2019	100	100

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
a) Safety and Security b) Counselling c) Common Room Safety security • Anna University is a vast campus with boundary wall. • All the Departments, Centres and Hostel have CCTV camera installed for safety purpose. • Women president and Vice President are elected as the members of student association to takeup student safety and security issues. • When permission is given for camp or Industrial Visit, care is taken to see that a women faculty is going along with them as mentioned in the No.CE 21/Industrial Visit/Instructions/201718 point number 23 • The attendance taking and reporting of the girl students in the hostel is also strictly followed to ensure that the students are present in the campus especially during cultural CEG GIRLS HOSTEL: The hostels are operating under the control of Warden, Executive warden and Deputy Warden. Dr. T. V. Geetha, Dean, CEG Campus and Dr. P. Hariharan, Professor of Manufacturing / Director of Student Affairs are serving as the Warden and Executive Warden for the CEG hostels respectively. Dr. M. Mutharam, Professor Head, Division of Soil Mechanics, acted as the Deputy Warden for the Ladies Hostels. Dr. J. Sudha, Assistant Professor, Department of Mechanical Engineering is currently holding the position of Deputy Warden. She looks after the hostel facilities and other concerns with regards to hostel with the help of Resident Counsellors (RC). Each block has separate RCs. They are either Research Scholars or Teaching Fellows from the various departments of CEG. They are accommodated in the hostels itself for the wellbeing of the students. Attendance is taken regularly to ascertain the presence of girls in their respective blocks. The curfew for the girl students is 8.30 p.m. 24/7 security is provided for all the blocks. LADIES MESS: Separate mess is provided for girls near the ladies hostels with

good ambience. The mess caters to the need of around 1000 students at a time. Nutritious and hygienic foods are being served to the girls to ensure their good health. Snacks and tea/coffee are provided only for the female students to the residents during evening time in order to reduce the hassle of going out. Lady supervisors are available in the mess to maintain th. Extra care is taken for sick students like providing hot water, kanji and bread. Nilavembu kashayam will be made available during the rainy seasons. Strict mess timings and dress code are maintained. HEALTH CENTRE: Health Centre provides medical facility to all the students and staff of the University. One female general physician is available for the convenience of girl students. It provides specialty consultancies in Ophthalogy, Skin, Diabetic, ENT, Paediatrics and Ortho to all students / staff once a week at the Main Campus. Health Centre has bio clinical, ECG and Physiotherapy facilities. All the prescribed medicines by the Medical Officers of the Health Centre are given free

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	29
Provision for lift	Yes	29
Ramp/Rails	Yes	29
Braille Software/facilities	Yes	52
Rest Rooms	Yes	100
Scribes for examination	Yes	5
Special skill development for differently abled students	Yes	100
Any other similar facility	Yes	100

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2018	0	1	01/07/2018	2	Vizhitru	Tiggering the students' minds to think in a much practical way and helps in mastering the Science concepts.2	35
2018	1	0	01/07/201	1500	B.Tech(Le	UG	240

			8		ather Tech), M. Tech(Leather Tech) in Collaboration with CSIRCLRI	Programme in collaboration with CLRI tailored to meet the needs of leather industry	
2018	1	0	01/05/2018	60	TNEA counselling	Online Counseling for engineering admission for the entire state of Tamil Nadu on request from Government of Tamil Nadu	100000
2018	1	0	14/11/2018	1	National campaign on energy conservation	Energy conservation	100

7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
GE8751 ENGINEERING ETHICS AND HUMAN VALUES	01/07/2018	7.1.15 : The institution offers a course on Human Values and professional ethics.: Yes GE7351ENGINEERING ETHICS AND HUMAN VALUES L T P C 3 0 0 3 OBJECTIVES • To emphasise into awareness on Engineering Ethics and Human Values. • To understand social responsibility of an engineer. • To appreciate ethical dilemma while discharging duties in professional life. UNIT I HUMAN VALUES 3 Morals, Values and Ethics – Integrity – Work Ethic – Honesty – Courage –Empathy – SelfConfidence – Discrimination Character. UNIT II ENGINEERING ETHICS 9

			Senses of Engineering Ethics variety of moral issues types of inquiry moral dilemmas moral autonomy Kohlbergs theory Gilligans theory consensus and controversy – Models of Professional Roles theories about right action Selfinterest –Professional Ideals and Virtues uses of ethical theories. Valuing Time – Cooperation – Commitment – UNIT III ENGINEERING AS SOCIAL EXPERIMENTATION 9 Engineering as experimentation engineers as responsible experimenters codes of ethics –Importance of Industrial Standards a balanced outlook on law – anticorruption occupational crime the challenger case study. UNIT IV ENGINEER'S RIGHTS AND RESPONSIBILITIESON SAFETY 12 Collegiality and loyalty – Respect for authority – Collective Bargaining – Confidentiality Conflict of interest – Occupational Crime – Professional Rights – IPR Safety and risk assessment of safety and risk risk benefit analysis and reducing risk the Three Mile Island, Bhopal Gas plant and Chernobyl as case studies. UNIT V GLOBAL ISSUES 12 1 Multinational corporations Environmental ethics computer ethics weapons development engineers as managersconsulting engineersengineers as expert witnesses and advisors moral leadershipSample code of conduct. TOTAL : 45 PERIODS OUTCOME • Students will have the ability to perform with

		professionalism, understand their rights, legal, ethical issues and their responsibilities as it pertains to engineering profession with engaging in lifelong learning with knowledge of contemporary issues. TEXTBOOKS: 1. Mike Martin and Roland Schinzinger, “Ethics in Engineering”, McGrawHill, New York 2005. 2. Charles E Harris, Michael S. Protchard and Michael J Rabins, “Engineering Ethics –Concepts and Cases”, Wadsworth Thompson Leatning, United States, 2000 (Indian 3. Govindarajan M, Natarajan S, Senthil Kumar V. S, “Engineering Ethics”, Prentice Hall of India, New Delhi, 2004. REFERENCES: 1. Charles D. Fleddermann, “Engineering Ethics”, Pearson Education / Prentice Hall, New Jersey, 2004 2. Charles E Harris, Michael S. Protchard and Michael J Rabins, “Engineering Ethics – Concepts and Cases”, Wadsworth Thompson Leatning, United States, 2000 3. John R Boatright, “Ethics and the Conduct of Business”, Pearson Education, New Delhi, 2003. 4. Edmund G Seebauer and Robert L Barry, “Fundamentals of Ethics for Scientists and Engineers”, Oxford Press , 2000 5. R.Subramanian , “Professional Ethics “,Oxford University Press ,Reprint ,2015.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
World Environment Day Celebration	05/06/2018	05/06/2018	0
White Cane Day Observation	01/10/2018	01/10/2018	0

7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

Green Practices : • Students, staff using o Bicycles o Public Transport o Pedestrian friendly roads • Plasticfree campus • Paperless office • Green landscaping with trees and plants a) Bicycles It is proposed to launch Smart Cycling systems in the Campus to ensure less Carbon foot print. b) Public Transport Public transport systems such as MTC, MRTS and Metro Stations are accessible from the Campus within the radius of 1 2 Km. In addition University buses also cater the need of the students for their conveyance from the Campus. University buses are used for industrial visits and for commuting from one campus to another. c) Pedestrian Friendly Roads Foot path for all major roads are provided in the Campus. The Students, Staffs and Visitors are advised to walk on the PlGreen Practices (Atleast 500 Characters and within 500 words) • Students, staff using o Bicycles o Public Transport o Pedestrian friendly roads • Plasticfree campus • Paperless office • Green landscaping with trees and plants a) Bicycles It is proposed to launch Smart Cycling systems in the Campus to ensure less Carbon foot print. b) Public Transport Public transport systems such as MTC, MRTS and Metro Stations are accessible from the Campus within the radius of 1 2 Km. In addition University buses also cater the need of the students for their conveyance from the Campus. University buses are used for industrial visits and for commuting from one campus to another. c) Pedestrian Friendly Roads Foot path for all major roads are provided in the Campus. The Students, Staffs and Visitors are advised to walk on the Platforms available in all the roads and also Pathways created in the Garden areas for the Students and Staffs. d) Plastic Free Campus : The use of disposable plastics is banned in all campuses, as per the Tamil Nadu Government Order. e) Paperless Office : Most of the administrative and academic activities are executed through software enabled online procedures. Some examples are: o ETendering o Online application for Maintenance Works o Online application for Quarters Allotment o RTGS / NEFT based payment for purchases made by the university, payment of fees by students, o Downloadable salary slips, PF statements, etc. (through ADAMS software) o Open day revaluation prevents the photocopying of answer booklets f) Green Landscape with Trees and Plants : An area of 50000 Sq.mts is landscaped with exotic trees, different species of plants, Lawns and Gardens. In addition, 5000 Nos of trees are planted in the CEG Campus and 2500 Nos in MIT Campus apart from the Agro Forestry Area (sentence to be corrected) Treated Sewage Water is used for Irrigation of Lawns and Gardens through Sprinkler Irrigation Systems in all four campuses. A garden nursery has been created near the Sewage treatment plant to grow saplings and potted plants. https://assessmentonline.naac.gov.in/storage/app/hei/SSR/103426/7.1.7_1559745213_3205.pdf

Rain water harvesting structures and utilization in the campus : Anna University had implemented various rain water harvesting structures such as underground sump, recharge pit, recharge well, recharge trench, etc., to harvest runoff generated from rooftop as well as surface runoff since 1980’s. Three decades ago, Centre for Water Resources (CWR), CEG, had created rooftop rainwater collecting system to meet the water requirements of hydraulic experiments for academic and research purposes. The Centre hasan open sump of capacity 3.5 lakhs litres and underground sump of capacity 8.8 lakhs litres. The volume of water harvested is used in hydraulics labs of both UG and PG which requires huge volume of water for its experiments.This system is still maintained properly to support the demand of CWR. During the year 2018, four recharge pits had been constructed near the CEG hostel buildings in the north eastern side of the CEG Campus. The roof of three buildings (ECE, Printing and Power systems departments) had been connected to nearby sumps through simple filters to harvest the rooftop rainwater. Rooftop rainwater harvesting in mega mess of CEG hostels is implemented for a capacity of 1 lakh litres. In order to harvest the surface runoff, many recharge pits had been created around the campus.Anna University has taken the following measures to augment ground water

throughrain water harvesting in the Campus: • Percolation pond (1 No) • Rain water harvesting pits 30 Nos.) • Trench pits (10 Nos.) • Roof top collection and roof area (750 sq. m) • Recharge wells (10 Nos.) have been implemented at various locations in Main Campus.

Waste Management steps including: • Solid waste management • Liquid waste management • Ewaste management Solid Waste Management: Solid Waste Management in the campus is carried out by dividing the campus in two zones namely Academic and Hostel. The wet waste generated from hostel kitchens, mess and canteen are sent to the bio gas plant where the gas generated is used for cooking purposes at the hostel kitchens and the slurry generated is used as fertilizer. The other solid organic and inorganic waste from both academic and hostel zones are collected by authorized dealers certified by the Corporation of Chennai. The medical waste generated by the health centre is disposed through authorized agency. Liquid Waste Management: An average of 3 Lakhs litres / day waste water is being generated from various parts of the campuses to the Sewage Treatment and Recycling plant which has capacity of 3 Lakhs litres. The treated waste water is used for irrigating Lawns and Gardens through Sprinkler Irrigation Systems. The vegetable wash water from kitchen is used for the inhouse vegetable garden. It is proposed to modernize the existing Sewage Treatment Recycling Plant to improve the treated water quality standards for the flushing purpose in the new buildings. EWASTE MANAGEMENT: EWaste in the Campuses is auctioned for disposal at respective departments. The central facilities area ewaste materials are auctioned by the Estate office / respective sections. There is also a procedure where condemned computers, printers etc. are disposed of under buy back scheme. https://assessmentonline.naac.gov.in/storage/app/hei/SSR/103426/7.1.5_1559747166_3205.pdf

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

BEST PRACTICE – 1 TITLE OF THE PRACTICE: STUDENTS SKILL DEVELOPMENT PROGRAMME PREAMBLE: The Siemens Centre of Excellence (SCoE) for Robotics Design and Automation has been set up at the MIT Campus of AU in 2018 and inaugurated by the Hon. Chief Minister of Tamil Nadu in October 2018. The SCoE is a platform for providing industry relevant skill development program to the students and faculty members to enhance their overall skills in addition to academic excellence. SCoEMIT has adequate infrastructure facilities to integrate students, academicians and industry peoples in engaging social empowerment. Besides MIT Campus, five technical skill development institutes (tSDIs) have also been set up at five different colleges, namely AU constituent colleges in Kancheepuram and Villupuram, Government Engineering College, Vellore, Murugappa Polytechnic College at Avadi and Central Technical Institute, Tharamani. The entire project cost Rs 546.84 crore on the public private partnership (PPP) mode. MIT campus is acting as the hub for these five institutions. M/s.Siemens along with M/s.DesignTech are bearing the operational cost for the first three years. SCOPE: The main objectives of SCoEMIT are o To train the students to make them employable o To equip the technical institutions with stateofart technologies o To improve the lab infrastructure in colleges o Skill upgradation of faculty members o To attract industries to set up units in the state by generating trained workforce o To promote RD and innovation in industries THE CONTEXT: SCoEMIT provides an effective platform for the students, faculty members as well as industrialists by utilizing the latest equipment software tools from Siemens. SCoEMIT is carrying out all such activities for the benefit of learners all over Tamil Nadu. The activities are effectively carried out with the help of 14 well established laboratories. There are 74 courses being offered using the laboratories. The duration of the courses vary from 8 hours to 50 hours depending on the course syllabus. These courses are handled by the 11 well trained resource persons from Siemens. These

skill development training programs are provided with free of cost for Government college students and other college students can take his training with the maximum nominal fee of Rs.500/ per course. Upon successful completion of this course, the trained candidates will be issued with the certificates. In addition to this, visitors from other colleges, industries and various training centers are invited to see the SCoEMIT facilities and activities. THE PRACTICE: 14 laboratories established under the SCoE are: o Product Design and Validation Laboratory: Houses hardware facility along with a powerful Siemens PLM software for CAD/CAM/CAE and PLM designs o Advanced Manufacturing Laboratory Provides the necessary advanced, innovative and cutting edge technology tools in virtual level to improve products and/or processes. Some of the technologies used are CAM (Computer Aided Manufacturing), DM (Digital Manufacturing) and PLM (Product Lifecycle Management). o Test and Optimization Laboratory Equipped with the latest hardware and software required to measure noise and vibration which in turn are used for optimization of the system. The LMS (Leuven Measurement Systems International) SCADAS Mobile – 8 Channel Data Acquisition System is capable of measuring Noise, Vibration, Impact and Force o Automation Laboratory Equipped with Modular Controllers with Technology functions and advanced configurations. Programmes were developed to enhance the skill set of the participants on Hardware Programming basics and servicing. o Mechatronics Laboratory Modular Automation Production Systems using basics of PLC and SCADA system. Modular Mechatronic Systems (MMS) are designed to understand the industrial production process. Modular Controllers S71200 are used to control the stations in the MAPS 6S system. o Process Instrumentation Laboratory The process instrumentation lab helps to understand the basics functions and physical properties of PROCESS AUTOMATION INSTRUMENTATION. Provides training on basics, parameterization commissioning of devices. The intelligent instruments are also designed for seamless interplay with the larger world of industrial automation. o Electrical Laboratory The electrical lab helps to understand the basics functions and physical properties of electrical components like motor control units and low voltage switchgear components. This electrical training includes speed control of ac/dc motors, power systems, switchgear motor maintenance/servicing and provides training on basics, programming commissioning of devices. o Rapid Prototyping Laboratory Rapid prototyping is a group of techniques used to quickly fabricate a scaled model of a physical part or assembly using threedimensional computer aided design (CAD) data. Construction of the part or assembly is usually done using 3D printing or additive layer manufacturing technology o NC Programming Laboratory Gives an exposure to Numeric Control (NC) coding and handling software packages identical to the o control system itself which simplifies handling machine tools. Courses on Milling and Turning are offered in this lab. o CNC Machines Laboratory CNC stands for computer numerical control. It is a machine controlled by a computer. Its external appearance is similar to that of a NC machine. Tape or Computer Keyboard or Tutor Keyboard is used as input media for CNC machines. CNC based operations and machining are taught in the courses. o Robotics Laboratory Industrial robots are automated, programmable and capable of movement on two or more axes. Typical applications of robots include welding, painting, assembly, pick and place for printed circuit boards, packaging and labelling, palletizing, product inspection, and testing all accomplished with high endurance, speed, and precision. They can assist in material handling. o Automotive Body Repair Laboratory Automobiles are to be maintained periodically. This Repair lab provides training on various repairing methodologies such as buffing, dent repairs and fender bender. The training includes various repairing methods and handson experience to repair automotive body panels. o Automotive Paint Shop Laboratory Automotive paint is used on automobiles for both protection and decoration purposes. Water based acrylic polyurethane enamel paint is currently the most widely used paint for reasons including reducing paints environmental impact. Courses offered include Auto

Body Repair, Denting Painting and Repair and Overhauling of Chassis System in passenger cars. o Lift Installation Maintenance Laboratory To trains students on installation methods of elevators (Lift). This lab also involves in training of elevator maintenance including safety precautions. Each Laboratory offers one or more courses with a batchstrength of 30. The courses are divided into 10 domains and expert trainers in each domain handle the courses. EVIDENCE OF SUCCESS: SCoEMIT has created a wonderful communication base wherein experts from industry, college, various RD and training centers were able to effectively interact in order to gather knowledge and ideas. The students gain ability to implement their RD ideas and also test them in real time scenario. PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED: SCoEMIT has received excellent feedback from the participants and visitors. Some of the feedback points are listed below. o Unable to learn the course completely because of inadequacy of time. o Course practical class is very less that can be extended to get more knowledge. o A designer in a company may be invited to express their view and explain how to design software applications o Language Barrier between the Instructor and students Provide training program in the college working days Equipment with more number of PLCs Based on the feedback received, SCoEMIT is taking necessary steps to improve the strength and active participation of the students and also to address the issues faced by the participants. BEST PRACTICE 2 TITLE OF THE PRACTICE: ESTABLISHMENT OF RESEARCH AND INNOVATION ECOSYSTEM AU has established three important Centres for spreading the research culture among the faculty members, UG/PG students and research scholars and to enable them to execute active research work : 1.Centre for Research (CFR) 2.Centre for Technology Development and Transfer (CTDT) 3.Centre for Intellectual Property Rights (CIPR) Apart from the above, a unique International Centre for Research Facilitation and Training (ICRFT) has been recently sanctioned by the Indian Government with a funding of Rs. 50 Crores. Sophisticated Instrumentation facilities have been established across several departments through this funding to impart training and to help active researchers. AU has also been shortlisted for funding under SAIF (Sophisticated Analytical Instrumentation Facility) scheme of DST. Through the support system provided by all these centres, the researchers can aim at achieving all the P's in the PPPPP (5P) model, namely: o Publications : By individual faculty members, students and scholars o Ph.D : Through academic research facilitated by Centre for Research o Project : Through active research facilitated by CTDT o Product : Through Technology Transfer to Industry facilitated by CTDT o Patent : Through filing of patent facilitated by CIPR OBJECTIVES OF THE PRACTICE: The main objective of establishing the RD Ecosystem of AU is to promote research among the students, scholars and faculty members by providing the required infrastructure, research ambience, funding support, administrative assistance, mentoring and periodic reviews. THE CONTEXT: Academic research is promoted by CFR which coordinates the entire administration for scholars of Ph.D / M.S by research starting from admission till the award of the degree. CFR maintains an exclusive website and facilitates the procedures through online submissions and updates. Funded projects are managed by CTDT for the

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

https://www.annauniv.edu/

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

True to its Vision to be a trend setter and leader in technical education, Women Empowerment and participation for the progress of technical education is a distinctive area of focus at Anna University.The policy of inclusiveness is

pursued vigorouslyto promote involvement of women in science and technology through research, innovation and leadership by engaging and enhancing their technical expertise to provide solutions that address social needs. The First woman engineer of India graduated in Electrical Engineering in 1943 from the 225 year old College of Engineering Guindy that later became the principal seat of Anna University. She rose to the level of Chief Inspector of Factories, a male dominated bastion. Several of the distinguished women alumni of Anna University have played and continue to play key roles in the government, private and academic sector in India and abroad. About 44 of undergraduate, postgraduate and doctoral students enrolled in the different programmes offered by Anna University departments are girls of which 1055 are Ph. D Scholars.35 cadets in the NCC wings (Army and Navy) of the University are women. Several of them have gained access to financial aid, foreign exchange programmes and internships. They have made the institution proud by performing extremely well in their studies, winning several awards and accolades at state, national and international levels and developing innovative solutions through their creativity.The educational experience at Anna University has enabled them to get prestigious placements, entrepreneurship opportunities and progression to higher education. Safety and security of girl students are a priority to Anna University with hostel accommodation provided to 3606 girl students. Amenities such as laundry facilities, personal hygiene facilities, recreational facilities, coffee shop are available within the hostel premises. Restrooms, Common Rooms, Gym and Swimming pool, Women specific health careand counselling are made exclusively available for women as part of the general campus facilities. Aakriti is the official forum for the women students established in 2011, to handhold, encourage and catalyse their efforts to cope with the challenging academic and technical pursuits through technical workshops, selfdefence courses, creative approaches and skill development programmes. The Institution has a noticeably higher percentage (43)of women faculty members, who contribute substantiallytowards promoting the University’s mission in terms of academics, research, student mentorship and governance. The number of women coordinators of NSS and NSO is more than 50 showing that women faculty take special interest in the overall development of students.Three among the four campuses, have had women Deans in the last five years. Amongst the eight faculty chairpersons, four are women, of which one nominated to the syndicate was a woman. Many of the University’s core administrative functions such as Academic Courses, Admissions, Research, Examination Wing, Central Computing Facility, Technology Transfer, Distance Education and several of the Departments and Centres have been headed by women. In addition a large number of women nonteaching staff both technical and administrative help cater to the student community. The university creates a conduciveenvironment for all its employees including its women employees showcased by the large number of women teaching and nonteaching staff with over 15 years of service continuing to work and grow in the University. The contribution by women to research, in the form of sponsored projects(36), scholars guided (36), PhDs awarded(41), publications (44) and patents (30),have been significant. Among Ph.d qualified faculty 41 are women and among these 83 are eligible Ph.D supervisors. The women faculty contributed in bringing in about 90.55 crores as project funds and 36.67crores as consultancy in the last five years. 40 of the project staff are women. A vital role in the development of an important socially relevant project, unmanned aerial vehicle with funding of 21 crores, was played by a woman faculty member. Women faculty members have significantly contributed in developing elearning material (67) including16 courses in a postgraduate level programme in computer science with a funding of 1.12 crores. Anna University has been identified as the University with Potential for Excellence (UPE) with a funding of 6.42 crores where 5 out of 8 faculty coordinators are women. The women in the University have always played significant roles in embracing stateoftheart technologies, evolving innovative research ideas andplanning and

implementing path breaking administrative reforms. The University's Centre for Women Empowerment plays an important role in enabling women of the university to explore all opportunities and help them to overcome their inhibitions. Some of the programmes organized by this centre include talks by motivational women speakers on legal rights of woman,safety issues, women health issues,and worklife balance. Understanding the needs of women, Day Care Centres have been established to cater to the wards of women faculty and research scholars. The centre also conducts a number of career oriented programmes for the women students of the university and the affiliated colleges. It also encourages the women students and women of Self Help Groups to enhance their entrepreneurial skills by giving them a chance to showcase their products and business ideas in the exhibitions organized. The Prevention Of Sexual Harassment (Posh) cell conducts "Gender Sensitization" awareness programmes for both men and women students enabling all students to conduct themselves in an appropriate manner. With the 44 women students and 43 of women faculty, the university can truly be recognized as a woman empowered institute particularly in the field of engineering and technology.This is in stark contrast to less than 10 women faculty on roll in highly funded IITs and IISc. Taking this forward, a separate webpage can highlight scholarships and opportunities exclusive for women and showcase their achievements and activities. Special mentoring system can be evolved that function at the department level to deal with women student and faculty issues in a timely manner. Future plans to further empower women could include provision to utilize qualified women engineers with family commitments who are unable to take up full time employment for activities such as econtent development, mentorship etc., and increased fund allocation for meritorious women students and research scholars.

Provide the weblink of the institution
https://www.annauniv.edu/

8.Future Plans of Actions for Next Academic Year

Anna University proposes to carry out the following quality sustenance and quality enhancement activities in the next academic year (201920). i. Preparation of IIQA and SSR for NAAC Reaccreditation and the associated followup activities ii. Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAAC iii. Participation in NIRF 2020, QS ranking, THEWUR Ranking and THE University Impact Ranking iv. Reforms in Question paper format in line with AICTE guidelines and OBE requirements v. Revision of Regulations, Curriculum and Syllabus of all UG and PG Programmes vi. Institutionalization of quality related activities, including adoption and dissemination of best practices and NBA accreditation of Programmes. vii. Improvements in the structured feedback mechanism and analysis of response from students, parents and other stakeholders on quality related institutional processes viii. Facilitating the creation of a learner centric environment conducive to quality education and adoption of the required knowledge and technology for participatory teaching and learning process by practice of Learning Management Systems (LMS) and use of ICT tools. ix. Organization of inter and intra institutional workshops, seminars on quality related themes for dissemination of information on various quality parameters of higher education x. Application of quality benchmarks/parameters for various academic and administrative activities of the institution and conduct of Academic Audit.