



SELF STUDY REPORT

FOR

3rd CYCLE OF ACCREDITATION

ANNA UNIVERSITY

ANNA UNIVERSITY, SARDAR PATEL ROAD, GUINDY

600025

www.annauniv.edu

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

March 2023

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Anna University was established on 4th September 1978, amalgamating four well-known technical institutions, namely: College of Engineering Guindy (CEG), the oldest technical institute established in the country (1794); Alagappa College of Technology (1944); Madras Institute of Technology (1949) and School of Architecture and Planning (1957). The University is spread over 380 acres and has 8 Faculties comprising 35 University Departments, offering quality education in engineering, technology, architecture, management, and applied sciences relevant to the current and projected needs of the global society. Presently it is an affiliating type of University comprising 16 constituent colleges and 489 institutions. Anna University is the first institution in India to offer undergraduate programs in Mechanical, Electrical, and Aerospace Engineering. The University was accredited by NAAC with a 5-Star status in 2002 and in the second cycle with a CGPA of 3.46 ('A' Grade).

Major Recognitions

The QS World University Ranking-2023 positioned Anna University between 551-560th rank, which is the 13th position among Indian Universities. Times Higher Education ranked Anna University 7th in SDG 6-Clean Water and Sanitation in 2020. In NIRF, it is ranked among the top 22 institutions under both University and Engineering categories since 2017.

The University Grants Commission (UGC) has recognized Anna University as a “University with Potential for Excellence” (UPE) in Biomedical Engineering & Instrumentation. The Directorate General of Civil Aviation (DGCA) approved Anna university as India’s first Remote Pilot Training Organization. Anna University also received the Clarivate India Research Citation Excellence Award (2021) for the highest citation among state Universities in India. Recently, Anna University received the National Award for NSS (2022) from her Excellency the President of India, the District Green Champion Award (2022) from the Ministry of Education, Government of India, and Anna Community Radio received the Lead Community radio station award (2022) from the Ministry of Information and Broadcasting, Government of India.

The Government of Tamil Nadu established an Unmanned Aerial Vehicle Corporation in technical partnership with Anna University in 2022. SIPCOT, Government of Tamil Nadu, recently signed an MoU with Anna University as a technical mentor to establish an Industrial Park in Chennai in Bio-Medical and Healthcare Instrumentation.

Vision

The vision of Anna University is to be a world-class institution by producing professionals with high-technical knowledge, professional skills and ethical values, and remain a preferred partner to the industry and community for their economic and social development through excellence in teaching, research and consultancy. Anna University shall be recognized as a point of reference, a catalyst, a facilitator, a trendsetter and a leader in technical education.

Mission

Anna University shall contribute to the educational, economic, and social development by

- Producing students who are intellectually and technically equipped with well-defined knowledge, skills and ethics, who are creative thinkers, inspiring leaders and contributing citizens.
- Introducing high-quality academic and research programmes and providing extension services in cutting-edge technologies.
- Ensuring a supportive campus climate with dynamic leadership and development opportunities to meet the needs of the students, faculty, and staff.
- Enhancing academic productivity through induction of quality faculty, accelerated graduation, credit banking, augmented continuing education opportunities and adoption of current technology.
- Sharing the intellectual resources and the infrastructure facilities among the academia from other institutions and among the industrial society, funding agencies and the government.
- Enhancing the collaboration between industry and institute for commercializing and transferring the latest technological know-how toward societal development.
- Setting up a Global University Network Campus that embodies the ideals of an open, democratic and global society catering to the needs of the global community and satisfying cultural, ethnic, and racial diversity.
- Expanding global participation spread across continents with the aid of interactive satellite-based education and usage of digital libraries.
- Enriching the national and international character of the University.
- Ensuring efficient administrative coordination and effective decision-making through necessary reforms and by strategically allocating resources.
- Benchmarking against technologically sound global leaders with the view towards continuous improvement.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- The University has a long legacy (One of its institutions, CEG, is the 7th oldest in the world and the oldest in the country).
- Housing several National facilities (Institute for Remote Sensing (IRS), Crystal Growth Centre (CGC), Educational Multimedia Research Centre (EMMRC), National Hub for Healthcare Instrumentation Development (NHHID), and National Centre for Sustainable Coastal Management (NCSCM) and more than 25 autonomous Research centers to carry out sponsored research, industrial consultancy, training, and enhancing academics, the Faculty are thus engaged in active research, consultancy, and extension activities.
- Promoting innovations, product development, and entrepreneurial development through exclusive facilitation centres (Centre for Sponsored Research and Consultancy (CSRC), Teaching Enabling Centre (TEC), Atal Incubation Centre (AIC), and Centre for Entrepreneur Development (CED), Biotechnology Industry Research Assistance Council (BIRAC) and AU-NLCIL Innovation Hub for Energy, Environment & Sustainability (ANNIHEES).
- Financially self-reliant by meeting the total salary requirement of the Teaching and Non-Teaching staff and all the expenditures for infrastructure development/maintenance through Internal Revenue Generation (IRG).

- Offering world-class education at an affordable cost.
- Distinct Undergraduate and Postgraduate programmes with curriculum diversity and innovation in specialized and emerging areas backed by industries based on societal needs. One of its kind is the collaboration among three major institutions, the Central Leather Research Institute (CLRI), the Leather Industries Association, and Anna University to offer a B.Tech in Leather Technology.
- Value-added courses for advanced learners, remedial and bridge courses for needy students, on-campus placement, and career guidance.
- Well-equipped laboratories, industry powered Centres of Excellence, an automated library, state-of-the-art computer facilities, smart classrooms, seminar halls, and other student amenity centres.
- Creditable and transparent evaluation system through customized and Secured Examination Management System (SEMS) software.
- Extensive co-curricular and extra-curricular activities through various student clubs.
- Transparent, accountable, and decentralized e-governance with a democratic decision-making process.
- A strong alumni base that hand-holds students for their scholarships, internship, soft skill development, and career opportunities.

Institutional Weakness

- Though ICT is being extensively used in all domains, implementing integrated e-governance is still in progress.
- Lack of structured mechanism to offer formal training to technical and administrative staff.
- Limited international faculty and geographical diversity in student admission due to policy constraints.
- Though the number of patents published is large, the commercialization of patents is a challenge.

Institutional Opportunity

- Setting up Global University Network Campus to explore credit transfer with international Universities.
- Exploring inter-departmental and inter-campus collaborative research.
- Improving Internal Revenue Generation (IRG) by offering online courses, tailor-made skill development programmes using the brand name, and available facility/expertise.
- Enhancing product-oriented research and development through autonomous research centers and national facilities created in the University.
- Tapping the potential of distinguished alumni occupying apex positions at the central and state levels in academics, administration, policy decisions, and corporate affairs.

Institutional Challenge

- Increasing the enrolment of foreign students and attracting international faculty members.
- Meeting the needs and offering customized teaching pedagogy for students from diverse social and economic backgrounds.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Anna University currently offers 31 Undergraduate and 81 Postgraduate programmes in the University Departments. In addition, it offers Ph.D./M.S. programmes. In the last 5 years, three UG and two PG programmes have been newly introduced, namely B.Tech. (Artificial Intelligence and Data Science), B.E. (Robotics and Automation), B.Plan., M.Tech. (Information Technology - Specialization in Artificial Intelligence and Data Science), and M.Tech. (Ocean Technology). All the programmes offered are based on the Choice Based Credit System (CBCS), with students having the flexibility to choose subjects across departments. The curriculum is designed to cater to industries and society's current and future needs. Industrial training/internships, online courses/self-study courses, employability enhancement courses, and value-added courses are some of the characteristic features of flexibility in the curriculum. The Program Education Objectives (PEOs), Program Outcomes (POs), Program Specific Objectives (PSOs), and Course Outcomes (COs) are well-defined and disseminated amongst all students, faculty members, and other stakeholders. The curriculum includes 7585 courses and 120 value-added courses. The programmes in the last 5 years include 35.24% of new courses and 81% of courses focusing on Employability/Entrepreneurship/Skill Development.

Teaching-learning and Evaluation

Approximately 70% of faculty members are Ph.D. holders, and the teaching is primarily Outcome Based Education (OBE). The curriculum is structured based on Bloom's Taxonomy for the benefit of the students. The student-faculty ratio is 13:1. The average experience of the faculty members is 12 years. In the last 5 years, 154 faculty members received National/International Fellowships/Awards/Recognitions, and 910 faculty members attended Faculty Development Programmes (FDPs). The AICTE-approved induction programmes are conducted by trained faculty members to familiarize the recruits with ethics and human values and orient them towards higher education.

The academic flexibility allows students to choose electives across all UG programmes and additional courses depending on their capabilities. Advanced learners are encouraged to pursue value-added courses and register for additional credits per semester to facilitate their internship opportunities. Bridge and remedial courses are offered to needy students to help them perform better.

The average demand ratio for admission in the past 5 years is 29:1. Around 83% of the classrooms in all the campuses of the University are ICT enabled to supplement the Teaching Learning Process. Student mentorship is done by allotting one faculty member for every 18 students. The Student-Computer ratio is maintained as 3:1. The laboratories available in the 33 research centres and national facilities are also utilized by the students for project works. The Makers Lab facility is established to promote innovative projects, which also helps the students in experiential learning. Educational Multi Media Research Centre established with UGC grants, facilitates e-content development.

The evaluation of the teaching-learning process is facilitated through multiple course committees, structured assessment tests, end-semester examinations, online student feedback, and academic audit. Teachers have free access to plagiarism-check software to evaluate the assignments and projects submitted by the students. A Secured Examination Management System (SEMS) supports all exam-related activities and enables the publication of results. The course registration process of examination applications, generation/dispatch of hall tickets, and results processing are done online. There are highly secure systems with no scope for tampering or manipulating student records. 'Clarification Day' is a unique practice of bringing transparency in evaluation, where the students get the opportunity to review the evaluation before the publication of results.

Research, Innovations and Extension

The University has a unique ecosystem with clear policies to innovate through research and consultancy. The Centre for Research caters to academic research. There are currently around 1,729 scholars pursuing Ph.D. in the University departments and 13,200 scholars pursuing Ph.D. in affiliated institutions. Foreign and QIP scholars are admitted through ICCR and AICTE. The University offers 150 Anna Research Fellowships (ARF), with a monthly stipend of Rs. 31,000 + HRA as per AICTE norms. On average, around 1,200 Ph.D. scholars receive their Ph.D. degrees in every annual convocation. In 2021, during the 41st convocation, The Honorable President of India awarded Ph.D. degrees to 2051 Ph.D. scholars. In 2022, during the 42nd convocation, The Honorable Prime Minister of India awarded Ph.D. degrees to 1813 Ph.D. scholars. The entire gamut of the centre's activities is automated through customized software. The Scopus h-index of the University is 183, and it is 91 for the assessment period.

The University houses four unique national facilities, namely the Institute of Remote Sensing (IRS), Crystal Growth Centre (CGC), National Hub for Healthcare Instrumentation Development (NHHID), and National Centre for Sustainable Coastal Management (NCSCM). The University also has established several research centres focusing on Climate Change and Disaster Management, Environmental Studies, Biotechnology, Medical Electronics, Water Resources, Energy Studies, Ocean Management, Energy Storage, and AU-KBC Research Centre (PPP Model) to pursue socially conscious research in emerging areas. Fifteen new research centres were established in 2022 to address the urgent need to build research capacity in emerging areas.

Sponsored research and consultancy are taken care of by the Centre for Sponsored Research and Consultancy (CSRC). In the last 5 years, the University received 255 projects from DST, DIT, DBT, CSIR, UGC, and other agencies worth Rs. 235.8 crores. The faculty members generated Rs 126.5 crores as internal revenue through consultancy.

Innovation & Translation research is facilitated through the Technology-Enabling Centre, Atal Incubation Centre, Centre for Entrepreneur Development, and University Innovation Cluster (E-Yuva) leading to 54 Startups. The Centre for Intellectual Property Rights promotes patents by which 220 patents have been published, and 58 patents have been granted in the last five years.

The University complements the State and Central government's various initiatives for promoting STEM education. All the initiatives have enabled the University to bag various prestigious awards like the University with Potential for Excellence (UPE), NSS National Award, and the SDG-6 Clean Water and Sanitation Ranking.

Infrastructure and Learning Resources

The University Departments of Anna University have 370 classrooms, 28 drawing halls, 560 laboratories, 40 seminar halls, and 9 auditoria. 54 laboratories of the University have been modernized by replacing obsolete types of equipment with a fund allocation of Rs. 75 crores. Around 4469 computers have the latest configuration, and 83% of classrooms are ICT enabled to engage modern technology in the learning environment.

The fully computerized library AutoLIB- Library Management Software (ILMS) with Online Public Access Catalogue (OPAC) is ranked 1st in Tamil Nadu and 7th nationally in e-resources usage. A full-fledged Digital Knowledge Center (DKC) is a gateway to e-resources (IEL online, Science Direct subject collection, Scopus

Database, SAE, e-ShodhSindhu, etc.) The library houses an extensive collection of 2,71,809 books, 220 current periodicals, 2,500 e-books, and 30,000 e-journals/databases. Remote access facility and RFID technology-based book lending and renewal are carried out digitally. In addition, the library, on average, buys books and journals worth Rs. 5 crores a year. The University library has uploaded 13793 research theses in the Shodhganga platform and bagged second place across various institutions in India. URKUND and TURNITIN are available to check the theses and research manuscripts and documents for duplication.

The University has purchased MATLAB, Microsoft 365, and Microsoft Teams to support the Teaching-Learning process. 24x7 uninterrupted Wi-Fi facility with an internet speed greater than 2Gbps, 23 Wi-Fi trees, and 900 indoor and 200 outdoor Wi-Fi access points are provided to 14,000 students. The institute has well-equipped gymkhana, yoga, sports, culture, and hostel facilities to support the student's physical and mental health. About 50 % of the University students are hostel inmates, which helps them to engage in team and group-based activities. Various scholarships, incubation facilities, entrepreneurship, periodical endowment memorial lectures, and industry-connect are facilitated through alumni associations.

Student Support and Progression

Around 57% of students received scholarships through various schemes, 60% were placed, and 50% benefitted from career guidance during 2021-2022.

The University now leverages CSR funds to train students from University departments and affiliated colleges. The Siemens Centre of Excellence (SCoE), at an investment of Rs. 546.84 crores, provides an industry-relevant skill development program to the students and faculty members. Around 4800 students were trained in the last 5 years. About 1000 students are trained in Employability-Skill Enhancement Programme (E-SEP), jointly with M/s. Renault Nissan Technology and Business Centre India Pvt. Ltd. (RNTBCI).

Student representatives are members of the Syllabus Sub-Committee, Multiple Course Committee (MCC), Overall Monitoring Committee (OMC), Hostel Committee, and Canteen Committee, through which they suggest their ideas and discuss their issues. To promote student leadership and quality, various student associations are functioning in each department, and every year they organize a technical symposium, exhibitions, and guest lectures. Also, the departments have student chapters of international and national engineering associations such as the IEEE, ACM, Indian Institute of Chemical Engineers, the Institution of Engineers, the Society of Petroleum Engineers, the Indian Ceramic Society, etc. Students Quality Council is the student organization at Anna University with full patronage from the industry. Students Associations and Arts Societies (SAAS) organize events such as UNESCO recognized Techno-Management festival, 'Kurukshestra', intra/inter-college festivals, fresher's parties, annual day celebrations, etc. Students Grievance Cell, Prevention of Sexual Harassment Cell, Anti-ragging committees, SC/ST Cell, etc., are functioning to address the issues and problems of students.

Governance, Leadership and Management

The University practices decentralization and participative management as per the Anna University Act and Statutes provisions. The University adheres to the procedures, recruitments, promotional policies, grievances redressal mechanism, and service rules framed by UGC, AICTE, and State Government for teaching and non-teaching staff. The Syndicate, Academic Council, Executive Committee of Autonomous Centres and Board of Studies meetings are conducted regularly. Funds are audited through the internal audit section of the University,

and statements of expenditure and utilization certificates are submitted on time.

Each department/faculty functions as a separate sub-unit, with functional autonomy in deciding and implementing the student-centric programmes and activities. The Departmental Consultative Committee of each department and the Multiple Courses Committees address their administrative and academic needs. The Deans and HoDs conduct frequent meetings with faculty members and students. Periodical meetings are held by the Vice-Chancellor with Directors, Deans, HoDs, and teaching and non-teaching staff to achieve collective wisdom in making policy decisions. Our institution's core values are well-defined and practiced by all our stakeholders.

The University has a functional Internal Quality Assurance Cell (IQAC) responsible for Quality Assessments, including Audits, Benchmarking, Checklists, and Documentation. The Cell is proactively involved in rankings (QS World University Ranking, Times Higher Education Ranking, National Institute Ranking Framework (NIRF) Ranking), NAAC and NBA accreditations, collecting feedback from stakeholders, conducting training for staff, internalization of quality culture and administrative reforms.

Anna Gem School in the University campus is a unique joint venture of Anna University and Gem Granites Groups, admitting wards of teaching & non-teaching staff. Day Care Centre at the Main and MIT campuses caters to the daycare needs of the children of the teaching and non-teaching staff.

Institutional Values and Best Practices

Core Values of the Institutions

- **Excellence:** In teaching, research, and extension service. Commitment to the pursuit of excellence in individual and collective endeavors.
- **Accountability:** Integrity, responsibility and democracy with the highest ethical standards ingrained in all University practices.
- **Teamwork and Collaborative Strategies:** Commitment to work together to achieve our shared vision, mission, and goals.
- **Student Centric Approach:** Commitment to providing an experience that ensures students engage in opportunities that stretch and challenge their self-perceptions, values, and beliefs.
- **Social Responsibility:** Active Participation in transformative, innovative, and lifelong learning in service to humanity.
- **Diversity and Equal Opportunity:** Cultivate a diverse and inclusive learning and work environment by increasing international expertise and participation.
- **Academic Freedom:** The freedom of inquiry and expression in teaching and research.
- **Safe Community:** A caring and safe community characterized by civility and respect stands in solidarity against any actions that exclude, discriminate against, or silence members of our community.
- **Sustainability:** A vibrant community and campus known for research-intensive educational quality, economically sound, environmentally responsible, and socially just.
- **Accessibility:** Inclusive educational environment that is accessible and affordable.

Best Practices

- SEMS portal and Clarification Day for the transparent evaluation process.
- Knowledge Data Centre portal and other computerized administrative and academic management.

- Industrial Skill Development Programmes in collaboration with industrial leaders (Siemens, Renault-Nissan, Mitsubishi, etc.).
- Networking with premier educational and R&D institutions within the city: IITM, CLRI, CSIR, NITTTR, NIOT, Adyar Cancer Institute, etc., for value addition.
- Unique collaborative programmes with CLRI (B.E. Leather Technology), Adyar Cancer Institute (M.Sc. Medical Physics), and Special B.E. programmes with RUSA funding (B.E. Computer Science and Engineering).
- Green practices include rainwater harvesting, sewage treatment plants for water recycling and reuse, in-house energy audit, solar-powered LEDs, biogas plant in hostels, and a ban on disposable plastic.
- Outreach activities during the COVID-19 pandemic include using Unmanned Aerial Vehicles (UAV) for crowd monitoring and disinfection, producing reusable masks, AU Sanitizer, Smart Health Thermometers, and AU Medical Service Robots.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the University	
Name	ANNA UNIVERSITY
Address	Anna University, Sardar Patel Road, Guindy
City	Chennai
State	Tamil Nadu
Pin	600025
Website	www.annauniv.edu

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Vice Chancellor	Dr. R. Velraj	044-22357005	9962537765	044-22357006	vc@annauniv.edu
IQAC / CIQA coordinator	Dr. R. Gunasekaran	044-22358585	9962690099	044-22358580	iqac@annauniv.edu

Nature of University	
Nature of University	State University

Type of University	
Type of University	Affiliating

Establishment Details	
Establishment Date of the University	04-09-1978
Status Prior to Establishment, If applicable	

Recognition Details		
Date of Recognition as a University by UGC or Any Other National Agency :		
Under Section	Date	View Document
2f of UGC	04-09-1978	View Document
12B of UGC	31-07-1979	View Document

University with Potential for Excellence	
Is the University Recognised as a University with Potential for Excellence (UPE) by the UGC?	Yes

Location, Area and Activity of Campus							
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	Programmes Offered	Date of Establishment	Date of Recognition by UGC/MHRD
Main campus	Anna University, Sardar Patel Road, Guindy	Urban	380	465770.8	Engineering and Technology		

2.2 ACADEMIC INFORMATION

Affiliated Institutions to the University

Type of Colleges	Permanent	Temporary	Total
Engineering/Technology/Architecture/Design	11	478	489

Furnish the Details of Colleges of University

Type Of Colleges	Numbers
Constituent Colleges	16
Affiliated Colleges	489
Colleges Under 2(f)	205
Colleges Under 2(f) and 12B	130
NAAC Accredited Colleges	148
Colleges with Potential for Excellence(UGC)	0
Autonomous Colleges	80
Colleges with Postgraduate Departments	369
Colleges with Research Departments	199
University Recognized Research Institutes/Centers	25

<p>Is the University Offering any Programmes Recognised by any Statutory Regulatory Authority (SRA)</p>	<p>: Yes</p>
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SRA program	Document
AICTE	103426_10013_1_1672307361.PDF
COA	103426_10013_18_1672307366.pdf
AICTE	103426_10013_1_1672307361.PDF
COA	103426_10013_18_1672307366.pdf
AICTE	103426_10013_1_1672307361.PDF
COA	103426_10013_18_1672307366.pdf
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COA	103426_10013_18_1672307366.pdf
COA	103426_10013_18_1672307366.pdf
AICTE	103426_5179_1_1591432275.PDF
COA	103426_5179_18_1591432286.pdf
AICTE	103426_3205_1_1553772877.PDF
COA	103426_3205_18_1554190421.pdf

Details Of Teaching & Non-Teaching Staff Of University

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned	137				244				482			
Recruited	28	14	0	42	76	49	0	125	152	160	0	312
Yet to Recruit	95				119				170			
On Contract	9	1	0	10	0	0	0	0	149	166	0	315

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned				464
Recruited	83	114	0	197
Yet to Recruit				267
On Contract	141	73	0	214

Technical Staff				
	Male	Female	Others	Total
Sanctioned				900
Recruited	224	75	0	299
Yet to Recruit				601
On Contract	47	18	0	65

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	3	1	0	0	0	0	0	0	0	4
Ph.D.	25	13	0	76	48	0	138	135	0	435
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	1	0	14	0	25	40
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	49	34	0	83
M.Phil.	0	0	0	0	0	0	10	24	0	34
PG	0	0	0	0	0	0	85	100	0	185
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	2	1	0	3
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0
UG	0	0	0	0	0	0	0	0	0	0

Distinguished Academicians Appointed As

	Male	Female	Others	Total
Emeritus Professor	6	1	0	7
Adjunct Professor	0	0	0	0
Visiting Professor	3	0	0	3

Chairs Instituted by the University

Sl.No	Name of the Department	Name of the Chair	Name of the Sponsor Organisation/Agency
1	Department of Chemical Engineering	AICTE Khosala Chair	Department of Chemical Engineering consortium
2	Department of Chemical Engineering	GS Laddha Professional Chair	Department of Chemical Engineering Consortium
3	Department of Civil Engineering	OIDB Chair	Oil Industry Board Ministry of Petroleum and Natural Gases
4	Department of Civil Engineering	HUDCO Chair	Housing and Urban Development Corporation Limited
5	Department of Mechanical Engineering	Renewable Energy Chair	Ministry of New and Renewable Energy
6	Department of Aeronautical Engineering	KAV Pandalai Chair	Aeronautical Research and Development Board Ministry of Defence
7	Department of Leather Technology	Nayudamma Abdul Wahid Chair	Indian Finished Leather Manufacturers and Exporters Association
8	General	Prof.T.Muthaian Chair	CPDE Funds
9	General	Perarignar Anna Professiosonal Chair	Anna University General Fund
10	Department of Electrical and Electronics Engineering	TNEB Appadurai Chair	Tamil Nadu Electricity Board

Provide the Following Details of Students Enrolled in the University During the Current Academic Year

Programme		From the State Where University is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	5205	69	203	49	5526
	Female	3423	46	109	43	3621
	Others	0	0	0	0	0
PG	Male	1355	27	6	1	1389
	Female	1105	16	4	1	1126
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	98	3	0	3	104
	Female	100	7	0	0	107
	Others	0	0	0	0	0
Pre Doctoral (M.Phil)	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0

Does the University offer any Integrated Programmes?	Yes
Total Number of Integrated Programme	3

Integrated Programme	From the State where university is located	From other States of India	NRI students	Foreign Students	Total
Male	199	3	3	0	205
Female	188	2	1	0	191
Others	0	0	0	0	0

Details of UGC Human Resource Development Centre, If applicable

Year of Establishment	Nil
Number of UGC Orientation Programmes	0
Number of UGC Refresher Course	0
Number of University's own Programmes	0
Total Number of Programmes Conducted (last five years)	0

Accreditation Details

Cycle Info	Accreditation	Grade	CGPA	Upload Peer Team Report
Cycle 1	Accreditation	Five Star	75.7	AU IQAC NAAC PTR 2002.pdf
Cycle 2	Accreditation	A	3.46	AU IQAC NAAC PTR 2014.PDF

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Department Of Aerospace Engineering	View Document
Department Of Applied Science And Technology	View Document
Department Of Architecture	View Document
Department Of Automobile Engineering	View Document
Department Of Biotechnology	View Document
Department Of Ceramic Technology	View Document
Department Of Chemical Engineering	View Document
Department Of Chemistry	View Document
Department Of Civil Engineering	View Document
Department Of Computer Science And Engineering	View Document
Department Of Computer Technology	View Document
Department Of Electrical And Electronics Engineering	View Document
Department Of Electronics And Communication Engineering	View Document
Department Of Electronics Engineering	View Document
Department Of English	View Document
Department Of Geology	View Document
Department Of Industrial Engineering	View Document
Department Of Information Science And Technology	View Document
Department Of Information Technology	View Document
Department Of Instrumentation Engineering	View Document
Department Of Leather Technology	View Document
Department Of Management Studies	View Document
Department Of Manufacturing Engineering	View Document
Department Of Mathematics	View Document
Department Of Mechanical Engineering	View Document
Department Of Media Sciences	View Document

Department Of Medical Physics	View Document
Department Of Mining Engineering	View Document
Department Of Physics	View Document
Department Of Planning	View Document
Department Of Printing And Packaging Technology	View Document
Department Of Production Technology	View Document
Department Of Rubber And Plastics Technology	View Document
Department Of Textile Technology	View Document
Faculty Of Architecture And Planning	View Document
Faculty Of Civil Engineering	View Document
Faculty Of Electrical And Electronics Engineering	View Document
Faculty Of Information And Communication Engineering	View Document
Faculty Of Management Sciences	View Document
Faculty Of Mechanical Engineering	View Document
Faculty Of Science And Humanities	View Document
Faculty Of Technology	View Document

Institutional preparedness for NEP

<p>1. Multidisciplinary/interdisciplinary:</p>	<p>Multidisciplinary: Anna University, one of the largest technological universities in the world, offers quality education in Engineering, Technology, Architecture, Management, and Applied sciences relevant to the needs of the global society. It offers programmes not only in Engineering (Civil, Electrical, Mechanical, Electronics & Communication, Electronics & Instrumentation, Computer Science & Engineering, Aeronautical Engineering, Automobile Engineering, etc.) but also a range of Technology oriented programmes viz., Bachelor's degrees in Bio-Technology, Textile Technology, Rubber, and Plastics Technology. Further Bachelor's degrees in Architecture and Planning, Master's degrees in Applied Sciences, Business Administration, and Media Science are also offered by the University.</p>
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	<p>Interdisciplinary: Anna University promotes and practices an interdisciplinary approach in its curriculum and syllabus. It offers interdisciplinary programmes such as Bachelor's degrees in Medical Electronics, Geo-informatics, Mechatronics, Avionics, Bio-Medical Engineering, Medical Physics, Media Science, etc.</p>
<p>2. Academic bank of credits (ABC):</p>	<p>Anna University has entered into Memoranda of Understanding with many foreign institutions and permits students to undertake courses through the learning agreements offered by them. The learning agreements permit students to go abroad to their respective universities for a semester-long study, enroll in courses, earn credits, and transfer credits. Students are also encouraged to undertake semester-long internships through programs like DAAD of Germany, MITACS of Canada, etc. Advanced learners can add courses from the third semester onwards, up to 8 credits, subject to a maximum of 2 courses. In addition, students can register for online (SWAYAM/NPTEL) courses and Value Added Courses (beyond the curriculum). Under the skill development initiative, students can enroll and study courses for up to 6 credits offered by the training partners. The regulations permit the credit transfer of the same. University encourages faculty to design and develop new courses in emerging and application-oriented technical fields, thereby enabling students to acquire detailed insights into cutting-edge technologies. Choice-Based Credit System: The University offers a choice-based and flexible curriculum and syllabi, and students are given a wide range of courses as professional and open electives. Honors/Minor Degree: One of the best practices of the University is that it offers B.E./B.Tech. with Honors/Minor in Major/other areas of specialization to all undergraduate programmes. Under this category, students are encouraged to enroll in courses in areas other than their specialization and earn 18 additional credits to successfully become eligible for the award of Honors/Minor in addition to the regular Bachelor's Degree. Integrated Programme: University accomplishes a well-rounded and integrated development in education by offering "Integrated programmes (M.Sc. 5 years)" in three domains, Electronic Media, Computer Science, and Information Technology, for students to pursue</p>

holistic learning without the restrictions imposed by subject and/or level of learning boundaries.

3. Skill development:

Anna University, in line with the Tamil Nadu Skill Development Corporation, has taken the initiative under the 'Naan Mudalvan' scheme of the Government of Tamil Nadu to offer skill development courses to students studying in engineering colleges. Under this initiative, around 40 courses are offered, with the student choosing one course per semester. Students are provided hands-on training on different skills in the physical mode. With the sponsorship of the Tamil Nadu Skill Development Corporation in association with the ICT Academy of Tamil Nadu, NASSCOM, and IBM, Anna University has launched a program called 'Naalaiya Tiran' - an Experiential Project Based Learning initiative to empower the students with enhanced professional and technical skills. A course entitled "Professional Readiness for Innovation Employability and Entrepreneurship", as an extended 4 to 5 months Hackathon, is offered as a mandatory course to all the sixth-semester students of relevant programmes. Anna University provides value-based education by offering courses such as Human Values, Society, Ethics, Unnat Bharat Abhiyan, and Personality Development through Life Enlightenment Skills. "Universal Human Values" is offered in the Student Induction programme. Many classrooms are equipped with ICT-enabled tools and infrastructure, enabling students to develop their skills through virtual lectures, workshops, conferences, and online meetings. A Centre of excellence in skill development, Siemens Centre of Excellence (SCoE) was established in the MIT Campus of Anna University by Tamil Nadu Government under the PPP model with Siemens and Design Tech limited at the cost of Rs. 546.84 crores with the state contribution of Rs.54.68 crores from Tamil Nadu Skill Development Corporation. The main scope includes skill upgradation of faculty members and students through 14 laboratories. Around 4800 students have been trained during the past 5 years through this centre. Another exclusive centre, AU-FRG CAD/CAM established in 1996, also aims to train faculty and students in CAD/CAM technologies. In addition, the Centre of excellence in Factory Automation was also established in collaboration

	<p>with Mitsubishi Electric Corporation to offer training in factory automation with the help of industrial Distributed Control Systems, Programmable Logic Controllers, and Robots.</p>
<p>4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):</p>	<p>Anna University offers two UG programmes (Civil Engineering & Mechanical Engineering) in Tamil medium in addition to English medium, to cater to local needs. To integrate the Indian Knowledge system into the curriculum, the University offers courses like Universal Human Values, Society, Ethics, Unnat Bharat Abhiyan, Constitution of India, and Yoga. An exclusive course on Tamil, Sanga Tamil Literature Appreciation, is offered to students. The University emphasizes preserving the Indian language, culture, and tradition by celebrating Indian festivals, namely Saraswathi & Ayudha Pooja, Pongal, Holi, Krishna Jayanti, Navaratri, Ugadi, Mahaveer Jayanti, Onam, Christmas, Ramzan, and Miladi Nabi. An exclusive centre, The Centre for Tamil Development in Engineering & Technology, was established to encourage faculty and students in Tamil Development and encourage their engineering & technical knowledge and skills through the Tamil language.</p>
<p>5. Focus on Outcome based education (OBE):</p>	<p>The globally recognized graduate attributes recommended by the Washington Accord are taken as Programme Outcomes (POs) for all the programmes with additional Programme Specific Outcomes (PSOs) respective to the programmes to ensure quality engineering education. Every course of the programme is structured by Course Outcomes (COs) at various levels according to Bloom's Taxonomy. Based on the desired course outcomes, the syllabus is prepared, and further course outcome statements are mapped into programme outcomes and programme-specific outcomes as a course articulation matrix. The Syllabus Sub-committee, Board of Studies, and Academic Council approve the same. All the approved programmes and their courses with quality metrics are published on the website. The OBE has been intertwined into the Teaching-Learning, assessment, and evaluation processes through dedicated templates for internal and end-semester examination question papers, an exclusively designed logbook/attendance register, and discussed in all academic forums. The attendance record is designed to include the aspects such as mapping POs</p>

	<p>with the COs, course coverage, mode of conduct of assessment, and mode of delivery. The question paper pattern includes the COs and BL levels for every question, which is framed by the Course Instructor. The feedback collected from the stakeholders, such as students, teachers, parents, alumni, and employers, is used for course correction during curriculum revision.</p>
6. Distance education/online education:	<p>Distance Education: An exclusive centre named Centre for Distance Education-Online Cell has been offering professional courses such as MBA, MCA, and M.Sc. degree programmes through distance mode since 2007. Management Courses are regularly revised through inquiry-based updation, accelerating students' leadership skills. The digital learning platform with innovative e-learning teaching aids enables learning anytime, anywhere. Digital learning with the latest industry trends in the curriculum provides holistic development. More than 80% of the classrooms in the University, conference halls, and seminar halls are equipped with ICT-enabled tools and infrastructure for conducting regular classes, meetings, special lectures, online meetings, workshops, conferences, symposiums, student events, etc. The University has a full-fledged Digital Knowledge Centre enriched with ICT facilities, namely IEL online, Internet browsing, access to e-resources via campus-wide and remote access, inter-library network, kiosks for self-book lending, Online Public Access Catalogue (OPAC), provision of tablets for remote access of e-resources. Online Education: Microsoft TEAMS-based learning management platform has been effectively utilized by all the students and faculty members for online teaching, teaching resource management, assignment, quiz and examination and evaluations, online meetings, research forums, webinars, parent meetings, and so on. Students can enroll in online (SWAYAM/NPTEL) courses beyond the curriculum.</p>

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	The Electoral Literacy Club activities are being conducted with the help of a sub-group in National Service Scheme (NSS) unit 06.
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<p>2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?</p>	<p>The Program Officer of NSS unit 06 Dr.K.M.Veerabdran, is coordinating the ELC-related activities with the help of the Student Coordinator (Campus Ambassador) Mr. B. Karthi, II year, ECE.</p>
<p>3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.</p>	<p>Some of the events conducted for voter education include the following, Hands-on experience to familiarize the community with linking Aadhar numbers with voter ID, Use of the android-app namely: Voter helpline, Posters on Voter Guide with revised COVID-safety voting guidelines, Celebrating National Voter's Day, Postal Ballot Facility, The technology used in the Election process, Posters/Brochures for Persons with Disabilities (PWD).</p>
<p>4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.</p>	<p>As directed by the Government of India, linking the Aadhar number with the voter ID was arranged as a special session. This session took place on 9th September 2022. All the NSS volunteers actively participated in this session, and awareness was created among them. The NSS Program officer delivered a speech on the right to vote and the importance of voter ID. Around 110 volunteers attended the session. His speech includes streamlining electoral rolls, registering migrated voters without duplication in electoral rolls, and curbing the menace of multiple enrolments of the same persons in different places. A session on linking an Aadhar number with a voter ID occurred on 15th September 2022. Around 115 volunteers attended the session. Through the mobile application 'voter helpline', linking Aadhar numbers can be done online. The volunteers who didn't apply for voter ID were guided to apply on the spot. The volunteers with voter IDs were guided to link their Aadhar numbers with voter IDs. Also, our senior volunteer explained the steps to apply for a voter ID if the junior volunteer didn't possess one. This session taught the volunteers the importance of voter ID to cast their votes in future elections. Also, the volunteers insisted on creating awareness among their families and neighbors to link their Aadhar numbers with voter IDs.</p>
<p>5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by</p>	<p>All the students above 18 years are enrolled as voters.</p>

ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2021-22	2020-21	2019-20	2018-19	2017-18
113	111	112	115	115
File Description		Document		
Institutional data in prescribed format		View Document		

1.2

Number of departments offering academic programmes

Response: 35

2 Students

2.1

Number of students year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
11571	13015	14438	14919	14616
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

Number of outgoing / final year students year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
4188	4064	4333	4323	4177
File Description		Document		
Institutional data in prescribed format		View Document		

2.3

Number of students appeared in the University examination year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
11539	13034	14552	15166	14809
File Description		Document		
Institutional data in prescribed format		View Document		

2.4

Number of revaluation applications year-wise during the last 5 years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	15	57

3 Teachers

3.1

Number of courses in all programs year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3621	3702	3211	3575	3767
File Description		Document		
Institutional data in prescribed format		View Document		

3.2

Number of full time teachers year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
852	852	852	852	777
File Description		Document		
Institutional data in prescribed format		View Document		

3.3

Number of sanctioned posts year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
852	852	852	852	777
File Description		Document		
Institutional data in prescribed format		View Document		

4 Institution

4.1

Number of eligible applications received for admissions to all the programs year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
152417	125091	120908	133990	155042
File Description		Document		
Institutional data in prescribed format		View Document		

4.2

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
3033	3183	3197	3564	3529
File Description		Document		
Institutional data in prescribed format		View Document		

4.3

Total number of classrooms and seminar halls

Response: 410

4.4

Total number of computers in the campus for academic purpose

Response: 4469

4.5

Total Expenditure excluding salary year-wise during last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
8516	10594	10424	15435	6613

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

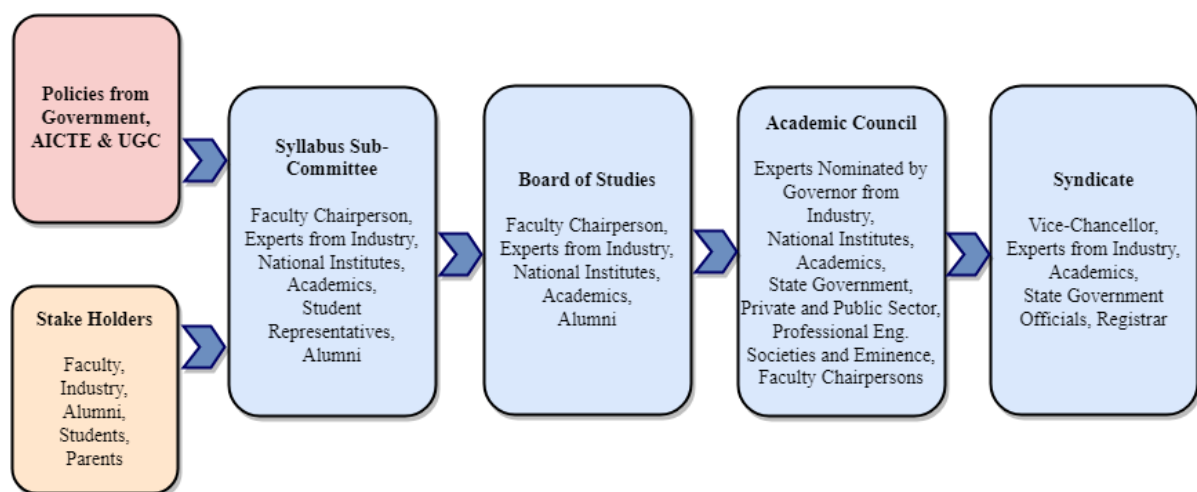
1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

Response:

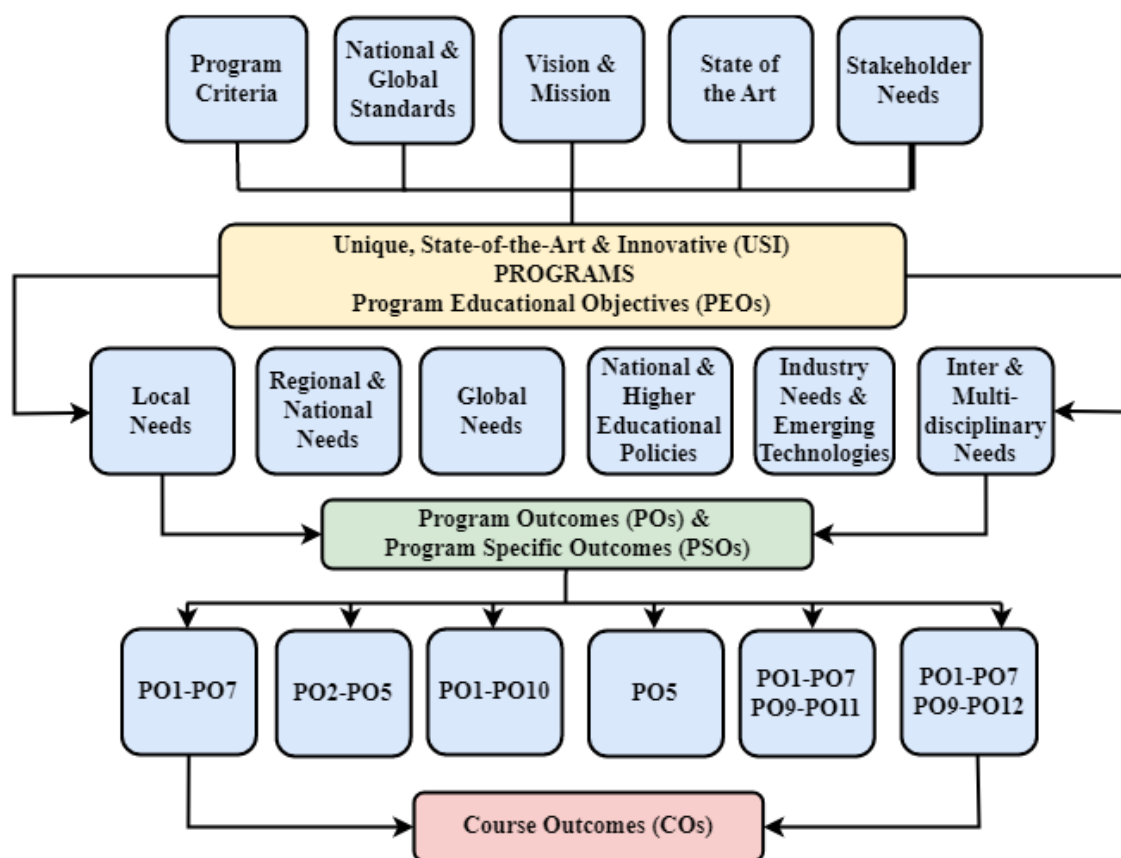
Anna University, which constitutes the renowned College of Engineering Guindy, the oldest institution in the country, was established in the year 1978 and offers 31 undergraduate and 81 postgraduate programmes apart from the Doctoral programs under 8 Faculties.

The University has carefully designed an innovative and state-of-the-art curriculum and implemented it successfully. Further, the implemented curriculum has been continuously reviewed and updated through a robust system. The curriculum includes the elements of education 4.0 and prepares the students to tackle emerging globalism effectively. The institution prepares the students to fit themselves in techno-managerial cadres through a technology-based, industry-compliant, product-inclined, entrepreneurship and society-driven curriculum. The curricula relate to local, regional, national, and global development needs.



Curriculum development & implementation

In tune with the vision of the Tamil Nadu Government and alignment with National needs, the University has a culture of inter and multi-disciplinary programmes across various disciplines such as Mechanical, Computer Science, Electrical Engineering, and Medical Sciences. Unique academic programmes have been conceived in disciplines like Robotics and Automation, AI and Data Science, Avionics, Mechatronics, and Bio-Medical Engineering to make students future-ready. Anna University introduced Civil and Mechanical Engineering in Tamil medium, to cater to local needs. Chennai, an automobile hub, has a huge manpower requirement met through the Automobile Engineering programme. Export of Leather goods and Apparel is an aspect of international trade in Tamil Nadu; Anna University offers undergraduate programmes in Leather, Apparel, and Textile Technology.



Reflection of POs, PSOs & COs in programmes

Anna University is one of the pioneers who brought the Choice Based Credit System (CBCS) in the Country with an enormous diversity in the curricula leading to innovation in the application of Engineering and Technology. The curricula and syllabi are revised periodically for both the Undergraduate and Postgraduate Programmes by conducting academic body meetings, namely the Syllabus sub-committee, Board of studies, and Academic council meeting with representatives from academia, industry, alumni, and students in accordance with Outcome Based Education (OBE), that encompasses institutional goals, employability enhancement, entrepreneurship, skill and knowledge development.

The right mix of theory and practicum ensures profound domain knowledge. The curriculum conforms to the higher education policies of India and adequately fulfills the requirements of both society and industry.

The Institution has adopted Learning Outcome Framework as envisaged by the AICTE and the UGC and has carefully coined POs, PSOs, and COs for all the academic programmes offered. Of the total 7585 courses across all programmes, nearly 40% are in thrust areas such as IT envisaged energy, agriculture, healthcare, environment, and green technologies. The courses taught under various programmes empower the students and provide a wide range of technical and hands-on skills contributing to the Nation's development to emerge as a Global leader.

File Description	Document
Upload Additional information	View Document
Link for Additional information	View Document

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.**Response:** 100**1.1.2.1 How many Programmes were revised out of total number of Programmes offered during the last five years**

Response: 112

1.1.2.2 Number of all Programmes offered by the institution during the last five years.

Response: 112

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Details of Programme syllabus revision in last 5 years	View Document
Any additional information	View Document
Link for additional information	View Document

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years**Response:** 81.81**1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
2603	2788	3150	3000	3008

File Description	Document
Programme/ Curriculum/ Syllabus of the courses	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 35.24

1.2.1.1 How many new courses were introduced within the last five years.

Response: 2673

1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.

Response: 7585

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 99.12

1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.

Response: 112

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

Response:

Crosscutting Courses in the Curriculum

A dedicated set of 210 courses offered under UG and PG programmes are designed to integrate crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment, and Sustainability into the Curriculum.

The courses cover a broad range of topics that include, Ethics, Human Values, Disaster Management, Gender, Society, Media, Culture, Climate Change, Environment, Sustainability, Laws and Rights, Pollution, Waste Management, Unnat Bharath Abhiyan, Constitution of India, Yoga, Value education, Pedagogy Studies, Stress Management, Personality Development through Life Enlightenment Skills, etc. A few examples are elaborated on below:

Professional Ethics and Human Values

Along with the quality technical education, Professional Ethics and Human Values have been an integral part of the vision and mission of the University ever since the University was born. These courses are offered under two exclusive categories: Humanities and Social Sciences, including Management Courses (HSMC) and Audit Courses (AC). The courses offered under the HSMC category are mandatory. The Universal Human Values (UHV) course is offered in the Student Induction programme.

Students are exposed to courses on Values and Ethics, Human Relations at Work, Psychological Processes, Education, Technology and Society, and Philosophy and Applications of Psychology in Everyday Life. Environmental Sciences is a mandatory course in UG programmes. English for Research Paper writing, Value Education, Pedagogy Studies, Sanga Tamil Literature and Appreciation, and Personality Development through Life Enlightenment Skills are some courses that benefit students.

Gender

A few courses, namely Language and Communication, Gender and Water, address gender issues, including empowerment, social stratification, and health.

Environment and Sustainability

Two exclusive PG programmes, Environmental Engineering and Environmental Management are offered under the faculty of Civil Engineering to inculcate a deeper understanding and knowledge of the environment and sustainability concerns. Each programme has customized courses to address sustainability from its perspective. Following are a few of the courses offered under the above programmes.

- Environmental and Social Impact Assessment
- Environmental Policies and Legislation
- Sustainable Development
- Industrial wastewater pollution - prevention and control
- Air Pollution Control
- Disaster and Incident Management, etc.

Supporting Student Activities

Student Clubs and NSS/NCC/NSO/YRC

In the curriculum, participation of students in personality and character development programmes is mandatory. In National Service Scheme (NSS), students undergo training for about 80 hours and attend a camp for seven days. The training includes hygiene and health awareness classes and first-aid training. Social service activities in and around the institution are also undertaken. National Cadet Corps (NCC) has about 20 parades. The activities include practical projects on recycling and reusing biodegradable and dry waste materials. National Sports Organization (NSO) has sports, games, drills, and physical exercises. Youth Red Cross (YRC) organizes many blood donation camps, health camps, and social services in and around institutions.

In addition, dedicated student clubs, namely Green Brigade, Siruthuligal (Charity Club of CEG), EQ, Rotaract, etc., contribute in a great way to environmental and societal concerns. For instance, the Green Brigade club promotes eco-friendliness and preserves the fraternity with Mother Earth.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Response: 116

1.3.2.1 How many new value-added courses are added within the last five years.

Response: 116

File Description	Document
Institutional data in prescribed format	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 13.37

1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
2315	1368	2540	2221	560

1.3.4 Percentage of students undertaking field projects / research projects / internships (Data for the latest completed academic year).

Response: 26.44

1.3.4.1 Number of students undertaking field projects or research projects or internships.

Response: 3059

File Description	Document
List of Programmes and number of students undertaking field projects research projects/ / internships (Data Template)	View Document
Any additional information	View Document
Link for additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

Response: A. All 4 of the above

File Description	Document
URL for stakeholder feedback report	View Document
Institutional data in prescribed format	View Document
Action taken report of the University on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	View Document

1.4.2 Feedback processes of the institution may be classified as follows:

Response: A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document
URL for feedback report	View Document
Institutional data in prescribed format	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Demand Ratio (Average of last five years)

Response: 28.83

2.1.1.1 Number of seats available year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
4395	4613	4633	5165	5115

File Description

Document

Demand Ratio (Average of Last five years) based on Data Template upload the document

[View Document](#)

• Any additional information

[View Document](#)

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the last five years (Excluding Supernumerary Seats)

Response: 81.31

2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
2296	2381	2633	3147	3014

File Description

Document

Average percentage of seats filled against seats reserved (Data Template)

[View Document](#)

Any additional information

[View Document](#)

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Response:

Assessment of Learning Levels

The Choice-Based Credit System, introduced in Regulation 2015, allows students to choose subjects of their choice. It allows advanced learners to progress at an accelerated pace while allowing slow learners to continue learning stress-free. The first activity conducted after admission to the campus is a two-week mandatory induction programme, wherein the students connect to their peers and faculty advisors through various programmes. It also helps to identify the needs of the students and provide personalized guidance. Bridge courses are conducted for first-year students, which help to improve their learning and grasp the advanced topics in regular classes. In addition to the regular activities, all students are advised to actively participate in various club activities.

The students are assessed for their learning levels through written tests, assignments, case studies, quizzes, group discussions, mini projects, internships, projects, and other experiential learning methods. The Faculty Advisors provide personalized guidance to students (18:1). The student's progress is continuously monitored by Multiple Courses Committee and Overall Monitoring Committee.

Opportunities provided for Advanced learners

The advanced learners can add courses from the third semester onwards, up to 8 credits, subject to a maximum of 2 courses. This would help them to take up a semester-long project work/internship in the industry. Students can opt for self-study courses from the fifth semester onwards, provided they do not have current arrears and have earned a CGPA of 8.0 and above till the previous semester. In addition, students can register for online (SWAYAM/NPTEL) courses and Value Added Courses (beyond the curriculum).

Under Regulation 2018 of RUSA's innovative curriculum, students can opt for B.E. (Honors) at the end of the fourth semester. They must earn 20 additional Soft Core/Professional Elective Category credits. Under Regulation R-2019, UG students are encouraged to undergo 6 extra courses to become eligible for the award of B.E. Honors in their Major for Research orientation or Minor in any other branch for improving employability.

Opportunities provided for Slow learners

Remedial Class

If the student fails in regular classes, they are admitted to remedial classes focusing on basic concepts, developing better study habits, and building confidence in the subject.

The learners with a disadvantage can drop a maximum of eight credits subject to two courses in a semester. They can register for online courses instead of professional elective courses. If a student fails to pass any theory or laboratory course after the 2nd attempt, the end-semester examination marks will only be considered as a pass criterion. If they fail to secure a pass in the VIII semester, they can appear for a one-time supplementary examination for the subjects of the VIII semester within 30 days from the results declaration date. In UG and PG programmes, 30/60 days are given to resubmit the Phase-I/Phase-II project reports. The maximum period for completion of the programme is seven years for UG and four years for PG, which serves as a cushion period.

File Description	Document
Upload Any additional information	View Document
Paste link for additional information	View Document

File Description	Document
2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)	
Response: 13.58	
Any additional information	View Document

2.3 Teaching- Learning Process

<p>2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences</p> <p>Response:</p> <p>Experiential Learning</p> <p>Courses under experiential and student-centric learning methods include project work, internship, creative and innovative projects, seminars, professional practices, case studies, and industrial/practical training.</p> <p>Project Based Learning (Naalaiya Thiran)</p> <p>With sponsorship from the Tamil Nadu Skill Development Corporation and association with ICT Academy of Tamil Nadu, NASSCOM, and IBM, Anna University, has launched a program called Naalaiya Thiran - an Experiential Project Based Learning Initiative to empower the students with enhanced professional and technical skills. The course is entitled Professional Readiness for Innovation Employability and Entrepreneurship, with three credits offered to all the sixth-semester students of B.E.(CSE), B.Tech.(IT), and B.E.(ECE).</p> <p>Internship: During the VII and VIII semesters, the students undertake a semester-long internship. If the internship is not prescribed in the curriculum, the students may undergo the internship optionally for 2/4/6 weeks (1/2/3 credits). A professional elective can be dropped if a student undergoes a 6-week internship.</p> <p>Creative and Innovative Project: This is a mandatory course Under R 2015, where every student is expected to work on solutions for unique problems.</p> <p>Socially relevant Project: This is another unique course in the curriculum under R2015/R2019, where the students find solutions to problems of social relevance.</p> <p>Special Courses: Students can optionally undergo additional online courses, self-study courses, and value-</p>

added courses beyond the curriculum to enhance their knowledge.

General Student-Centric methods

Industrial Visit: Students must go for an industrial visit every year, starting from the programme's second year.

Industrial/Practical training: Students are encouraged to apply for industrial/practical training in reputed academic institutions/industries.

Project Work: The VII/VIII semester Project Work kindles the research aptitude of the students and enhances their problem-solving ability.

Virtual/Simulation Labs: During the pandemic, as regular laboratory sessions could not be conducted, virtual & simulation labs were experimented with, which helped to provide students with a real-lab-like experience and helped improve their problem-solving ability.

RUSA Innovative Curriculum, 2018 – Unique Features

Category of Courses: The RUSA Innovative Curriculum, 2018, adopted for the Computer Science and Engineering UG programme, has hardcore and softcore courses, grouped as mathematics-based soft courses and professional softcore courses.

External Learning: Apart from classroom learning, external learning is a part of every subject wherein students earn one credit.

Experiential Learning: Under RUSA 2018, 80% of the courses are theory courses integrated with practical or practical courses integrated with theory.

Industry Advisory Committee: This committee discusses other ways of helping the students in their projects, internships, and mentorships.

File Description	Document
Upload any additional information	View Document
Link for Additional Information	View Document

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

Anna University started to use ICT-based education a decade before the introduction of the current online-based education.

MOOCS

Educational Multimedia Research Centre (EMMRC) is an ICT-based initiative at Anna University to access teaching resources through satellite/TV, e-content, video lectures, documentary programmes, etc., under NME-ICT of UGC CEC. The centre has been operating since 1985. Faculty members majorly contribute to this initiative. The centre has contributed significantly to the Prime Minister's Digital India by developing programmes (09 programmes, 223 lecture modules) in subjects in Applied Sciences in the SWAYAM Portal for Direct-To-Home (DTH) Programme and e-PG Pathshala. The Centre for Faculty Development at Anna University has provisioned the video lecture content of various courses from its repository for use by the faculty and students.

LEARNING MANAGEMENT SYSTEM

Microsoft Teams

Microsoft Academic Campus Licensed Software with specifications including Windows Education update software, In-tune Add-on, Visual Studio Professional, Windows Server, and Office 365 worth Rs. 9,85,300/- was procured in February 2022 for the benefit of teachers and students. The Microsoft TEAMS-based learning management platform has been effectively utilized for online teaching, teaching resource management, assignment, quiz and examination and evaluations, online meetings, research forums, webinars, parents meeting, and so on. Using this platform, teachers can quickly upload learning resources, lecture notes, and recorded classroom videos for later use. A few departments have successfully conducted laboratory courses entirely online. Microsoft TEAMS has been effectively utilized for online meetings, webinars, and parent meetings even after the pandemic.

MOODLE

Moodle-based LMS has been developed in-house, and a few departments have adopted it, facilitating teachers and students with the best TLP management.

SMART Classrooms & Laboratories

More than 80% of the classrooms in the university, conference halls, and seminar halls are equipped with ICT-enabled tools and infrastructure for conducting regular classes, meetings, special lectures, online meetings, workshops, conferences, symposiums, student events, etc.

Virtual/Simulation Labs

During the pandemic, laboratory sessions for both UG & PG programs were conducted using Virtual/Simulation Labs (An Initiative of the Ministry of Education Under the National Mission on Education through ICT), which provide students with a real-lab experience and help improve their problem-solving ability.

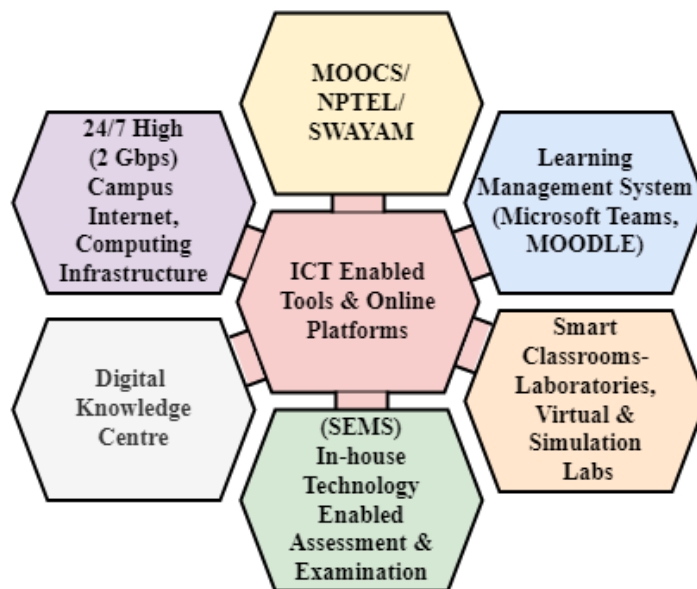
Digital Knowledge Centre

A full-fledged Digital Knowledge Centre consists of 2500 e-Books and 30000 e-Journals/databases with ICT special facilities and services, namely IEL online, Internet browsing, access to e-resources via campus-wide and remote access, inter-library network, kiosks for self-book lending, Online Public Access

Catalogue (OPAC), provision of tablets for remote of e-resources, web-based library information, well-automated book entry and transaction with RFID technology using a smart card. The Library houses all the question papers and thesis in digitized form under Digital Library Project.

Ramanujan Computing Centre (RCC), established in 1963, provides

- 24/7 Computing Infrastructure & Technology with Student - Computer ratio of 3:1.
- Fibre-based high-speed (2 Gbps) campus network with high-end servers.
- Common services include e-mail and web services with 900 indoor and 200 outdoor Wi-Fi access points and 23 Wi-Fi trees.
- The Centre maintains the University website and facilitates video streaming services and video conferencing/Video-on-demand facilities.



ICT enabled Tools & Resources

File Description	Document
Upload any additional information	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 17.77

2.3.3.1 Number of mentors ?????????????? ???????

Response: 651

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll.	View Document
mentor/mentee ratio	View Document
Circulars pertaining to assigning mentors to mentees	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Any additional information	View Document

2.4.2 Average percentage of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D’Lit. year-wise during the last five years

Response: 73.41

2.4.2.1 Number of full time teachers with *Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt.* year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
671	641	613	584	564

File Description	Document
List of number of full time teachers with Ph D/D M/M Ch/D N B Superspeciality/DSc/D Lit and number of full time teachers for 5 years	View Document
Any additional information	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 12.24

2.4.3.1 Total experience of full-time teachers

Response: 10430

File Description	Document
List of Teachers including their PAN, designation, dept and experience details	View Document
Any additional information	View Document

2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the last five years

Response: 15.65

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government/Govt. recognized bodies year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
30	25	26	21	29

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document
Any additional information	View Document

2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 25.08

2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
11.07	17.89	20.99	37.13	38.30

File Description	Document
List of Programmes and date of last semester and date of declaration of results	View Document
Any additional information	View Document

2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0.1

2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0	15	57

File Description	Document
Number of complaints and total number of students appeared year wise	View Document
Any additional information	View Document

2.5.3 IT integration and reforms in the examination procedures and processes (continuous internal assessment and end-semester assessment) have brought in considerable improvement in examination management system of the institution

Response:

Several measures have been taken for IT integration of all the activities related to continuous assessment and examination management in terms of transparency and quick communication with all stakeholders.

IT Integration in Examination Procedure

In-house Technology for Assessment and Examination System

Secured Examination Management System (SEMS)

SEMS is an in-house platform developed by the faculty and is a student-centric, reliable educational performance assessment system for a fair and credible examination process. It deals with timely and transparent result publication and dissemination of academic performance records, such as mark sheets, grade sheets, provisional certificates, degree certificates, etc.

SEMS Services

Student-Centric features

- Course Registration
- Flexible CBCS (students can choose their faculty).
- Students can view their marks and attendance in their login (also intimated through e-mail)
- Students can view their timetable, hall ticket, and grades
- Open Day/Clarification Day schedule to verify their answer books

Faculty-Centric features

- Flexibility to fix the weightage
- Provision for custom, automatic (fixed), and relative grading using mean, standard deviation & normal distribution
- Generation of timetable slots and prevention list
- Operating multiple roles and responsibilities for faculty members (Timetable in charge, Faculty Advisor, and Head of the Department)

Administrative-Centric (HoD/ACoE)

- Tracking the entry of attendance and assessment particulars by the faculty
- Monitoring the performance of student learning levels
- Enabling quick dissemination of information to all stakeholders with role-based security

Reforms in Examination Procedure

- Implementation of Bloom's Taxonomy:
 - Internal assessments and end-semester examinations covering all levels in Bloom's Taxonomy
 - Revised question paper pattern mandates Part C with a higher order question (compulsory) on application/design/analysis/evaluation/creativity/case study in the subject domain (Reference: https://acoe.annauniv.edu/Home/download_form - UG IQAC Prescribed Question Paper Format for R2019).
- Open Day/Clarification Day: It is an important reform in which students can view the end-semester answer book and clarify any issues
- Secure Online Question Paper Delivery System (SOQPDS)
- Barcoding of answer books
- Internet-Based Online Secured Examination Management System

File Description	Document
Year wise number of applications, students and revaluation cases	View Document
Link for additional information	View Document

2.5.4 Status of automation of Examination division along with approved Examination Manual

Response: 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	View Document
Current Manual of examination automation system	View Document
Any additional information	View Document
Annual reports of examination including the present status of automation	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 The institution has stated learning outcomes (generic and programme specific)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents

Response:

Integration of learning outcome in the Assessment Process

OBE has been intertwined into the Teaching-Learning, assessment, and evaluation processes through dedicated templates for internal and end-semester examination question papers exclusively designed logbook/attendance register. This is discussed where necessary in all academic forums and schemes. An Attendance and Assessment record is provided to the Course Instructor for theory and laboratory courses. The attendance record is designed to include aspects such as mapping of POs with the COs, course coverage, mode of assessment, and mode of delivery, including lectures, powerpoint presentations, video lectures, field visits, group discussions, web-based assignments, flipped classes, etc.

The question paper pattern includes the CO and Bloom's Taxonomy (BL) levels for every question framed by the Course Instructor while setting the questions. Further, there are required percentages to be maintained under the categories low order, intermediate order, and high order, based on Bloom's Taxonomy. Course-wise, CO-based feedback is collected from the students.

Level of Questions	Lower Order (L1 and L2)		Intermediate Order	Higher Order
Recommended Distribution of Marks (%)	UG	20 to 35	Minimum 40	15 to 25
	PG	10 to 25	Minimum 50	15 to 25

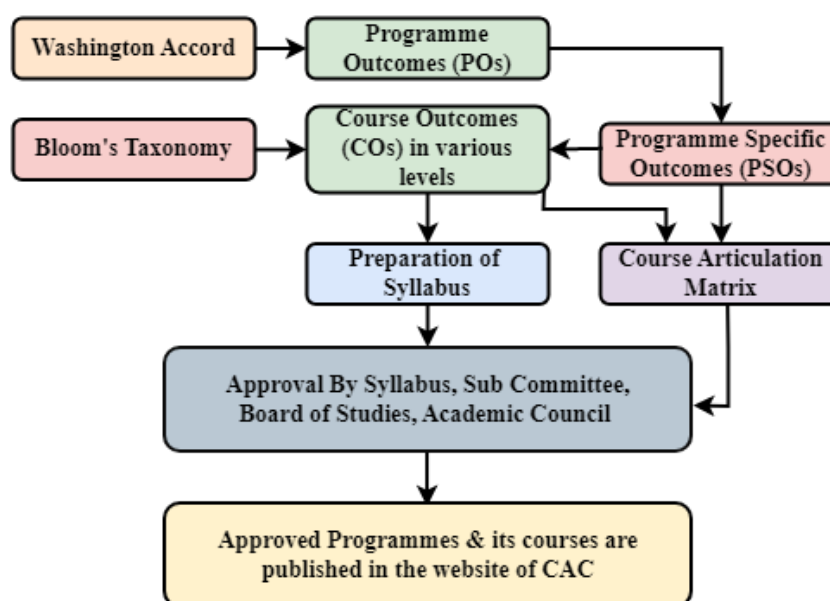
Marks Distribution: Bloom's Taxonomy

Publicizing the Learning Outcomes

Outcome Based Education (OBE) has been adopted since R2015 and continuously upgraded and integrated into all teaching, learning, and evaluation aspects. The globally recognized graduate attributes recommended by the Washington Accord are taken as Programme Outcomes (POs) for all the undergraduate programmes with additional Programme Specific Outcomes (PSOs) to ensure quality in engineering education. Every course is structured with specific Course Outcomes (COs) at various levels in accordance with Bloom's Taxonomy. Based on the desired course outcomes, the syllabus is prepared. Further, the COs are mapped with POs and PSOs as a course articulation matrix. The Program Education Objectives (PEOs) describe the expected achievements of graduates within the first few years of their entry into the programme. The PEO, PO, PSO, and CO statements are thus proposed, and their mapping is approved by the Syllabus Sub-Committee, Board of Studies, and Academic Council of Anna University.

The articulation matrices of all the courses fulfill the requirement of every program's graduate attributes, which verifies the individual students' cognitive, affective, and psychomotor learning levels of the entire class. All the approved programmes and courses with CO-PO mapping are published and openly maintained in the Centre for Academic Courses, Anna University website. The schematic model shown is scrupulously followed by the Centre for Academic Courses while framing the curricula, program outcomes, course outcomes, and syllabi.

During the first-year induction programme, awareness is created among the students about the Outcome-Based Education (OBE) framework and its quantitative evaluation to verify attainments levels.



Publicization of Learning Outcomes

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document
Upload any additional information	View Document

2.6.2 Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution

Response:

Curricula and syllabi are developed under the framework of Outcome Based Education (OBE) along with Program Outcomes (POs), Program Specific Outcomes (PSOs), Course Outcomes (COs), Course Articulation Matrix, and Program Articulation Matrix. The same is considered for evaluating individual students' performances and reviewing the attainment levels of every class.

Attainment of Course Outcomes

The CO attainment levels obtained from the Continuous Internal Assessments (CIA) and End Semester Examinations (ESE) are taken together for the overall attainment of the course. The percentage of students attaining the defined targets set by the teachers on each CO is calculated and categorized into low, medium, and high levels for every course offered. The gaps in attainment are taken up for further analysis, contributing factors are addressed through action-taken reports, and further suggestions for continuous improvement are provided.

Attainment of Program Outcomes and Program Specific Outcomes

The attainment percentage obtained for each course CO is multiplied by the course articulation matrix to get the individual course contribution towards direct attainment of POs and PSOs. The POs and PSOs for all the courses are computed and averaged, and a minimum of 80% weightage is given under direct attainment. Based on the student exit survey and alumni feedback, data related to POs and PSOs for indirect attainment is collected. 20% weightage is given for indirect assessment. The combined values of direct and indirect attainment of POs and PSOs are compared with the target value for the batch based on the criteria set by the department for the respective programme. The gap in the PO/CO attainment is identified and used to refine/enhance the TLP of each programme/course.

All stakeholders' feedback is obtained through different modes and analyzed for improvement. Common Course Committees, Multiple Course Committees, and Overall Monitoring Committees are constituted at different levels and stages to assess and monitor progress and improvement. The Internal Quality Assurance Cell is a dedicated wing of the University that constantly monitors the OBE activities and provides suggestions for improvement. The Centre for Academic Courses conducts OBE awareness programs for all the faculty and staff to smooth the Teaching-Learning Process.

At the end of every semester, student course feedback is obtained and shared with the concerned course instructors for improvement. Each program's CO, PO, and PSO attainments are computed and analyzed.

File Description	Document
Upload any additional information	View Document
Paste link for Additional Information	View Document

2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 95.75

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 4010

2.6.3.2 **Total number of final year students who appeared for the examination conducted by the Institution.**

Response: 4188

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination	View Document
Upload any additional information	View Document
Paste link for the annual report	View Document
Link fo any additional information	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 3.12

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1 The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

Research Promotion Policy

Anna University has built a robust research and innovation ecosystem through,

- Providing seed money to fresh recruits to establish their laboratories and kick-start their research.
- Providing international travel grants to faculty and students to enable them to participate and present papers in International Conferences.
- Providing funding for start-ups to faculty and students.
- Providing travel support for R & D Project presentations.
- Providing Awards and Recognition for Research Excellence periodically.

The Universities research facilities are frequently updated and available to carry out extensive research:

Major research facilities

The major research equipment in Anna University, more than fifty lakhs each, facilitates state-of-the-art research in the thrust areas and societal applications. A few equipments, namely, EVSE tester, Transient Dynamometer, Emission Analyser, Multi cylinder GDU engine with open ECU control, Coordinates measuring machine, Rubber process analyzer, Polymer additive manufacturing facility and accessories, 5-axis CNC machine, are used in research projects significantly.

Research facilities to carry out extensive research at the National level across specialized domains:

National Hub for Healthcare Instrumentation and Development (NHHID)

- Medical device development from prototype to regulatory approval.
- Prototype systems infrastructure focused on adaptive, secure technologies.
- Innovative and value-based care to people.

National Centre for Sustainable Coastal Management (NCSCM)

- Promotes sustainable coasts through increased partnerships, conservation practices, and scientific research.
- Knowledge management and dissemination of information for the benefit and well-being of current and future generations.

Crystal Growth Centre (CGC)

- Upgrade research activities and contribute to the frontier areas of research and technology relevant to crystal growth.
- The use of silica wafers for photovoltaic cells is worth mentioning.

Centre for Research (CFR)

The Centre for Research (CFR) functions wholly through e-governance, right from the admission process to the submission of the thesis with the following scope:

- Admission into Ph. D and M.S. (By Research) research programmes conducted twice a year as per UGC norms.
- Various Research Fellowships (JRF, SRF, PDF & Faculty Fellowships) funded by different funding agencies like UGC, SERB, CSIR, ICMR, ICSSR & AICTE are operated.
- Rajiv Gandhi, Moulana Azad, and Dr. D. S. Kothari fellowships for Post-Docs provided by UGC are facilitated.
- Activities, such as Supervisor recognition, Research Centre recognition, and admission of research scholars carried out by the centre.
- ACRF (Anna Centenary Research Fellowship) of Rs. 20,000 was given to 50 scholars, and a revised Anna Research Fellowship (ARF) of Rs. 31,000 +HRA was launched in 2022, catering to 150 scholars.
- The Executive Committee Meeting and the Research Board Meeting regularly deliberate on key issues setting higher benchmarks for the scholars and the supervisors.
- The Doctoral Committee provides proper guidance to the scholars throughout the research period.
- Candidates from industries are encouraged to pursue a Part-Time Ph.D. under supervisors of University Departments on topics that directly impact industrial application.
- Research Excellence awards are given to felicitate outstanding research contributions of the Faculty.
- Research Product Exhibition is conducted annually to showcase excellent research innovations on 'Technology Day'.

Induction program for fresh research scholars and experts to help choose research topics.

File Description	Document
Any additional information	View Document
URL of Policy document on promotion of research uploaded on website	View Document

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 49.76

3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five

years (INR in lakhs).

2021-22	2020-21	2019-20	2018-19	2017-18
187.55	0	20.97	18.86	21.43

File Description	Document
Institutional data in prescribed format	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document
Any additional information	View Document

3.1.3 Percentage of teachers receiving national / international fellowship / financial support by various agencies for advanced studies / research during the last five years.

Response: 3.01

3.1.3.1 The number of teachers who received national / international fellowship / financial support by various agencies for advanced studies / research year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
27	9	26	36	28

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the award letters of the teachers	View Document

3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the last five years.

Response: 346

3.1.4.1 The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
69	58	38	67	114

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.1.5 Institution has the following facilities to support research

- 1. Central Instrumentation Centre**
- 2. Animal House/Green House**
- 3. Museum**
- 4. Media laboratory/Studios**
- 5. Business Lab**
- 6. Research/Statistical Databases**
- 7. Mootcourt**
- 8. Theatre**
- 9. Art Gallery**
- 10. Any other facility to support research**

Response: A. 4 or more of the above

File Description	Document
Upload the list of facilities provided by the university and their year of establishment	View Document
Upload any additional information	View Document

3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies (Data for the latest completed academic year)

Response: 37.14

3.1.6.1 The Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other similar recognitions by national and international agencies.

Response: 13

File Description	Document
Institutional data in prescribed format	View Document
e-version of departmental recognition award letters	View Document
Any additional information	View Document

3.2 Resource Mobilization for Research

3.2.1 Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the last five years (INR in Lakhs).

Response: 2247.93

3.2.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years (INR in Lakhs).

2021-22	2020-21	2019-20	2018-19	2017-18
401.98	699.21	462.01	501.36	183.37

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the grant award letters for research projects sponsored by non-government	View Document

3.2.2 Grants for research projects sponsored by the government agencies during the last five years (INR in Lakhs).

Response: 20765.08

3.2.2.1 Total Grants for research projects sponsored by the government agencies year-wise during the last five years (INR in Lakhs).

2021-22	2020-21	2019-20	2018-19	2017-18
2863.16	8266.84	2737.06	1760.88	5137.14

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the grant award letters for research projects sponsored by government	View Document

3.2.3 Number of research projects per teacher funded by government and non-government agencies during the last five years

Response: 1.69

3.2.3.1 Number of research projects funded by government and non-government agencies during the last five years.

Response: 296

3.2.3.2 Number of full time teachers worked in the institution year-wise during the last five years..

Response: 874

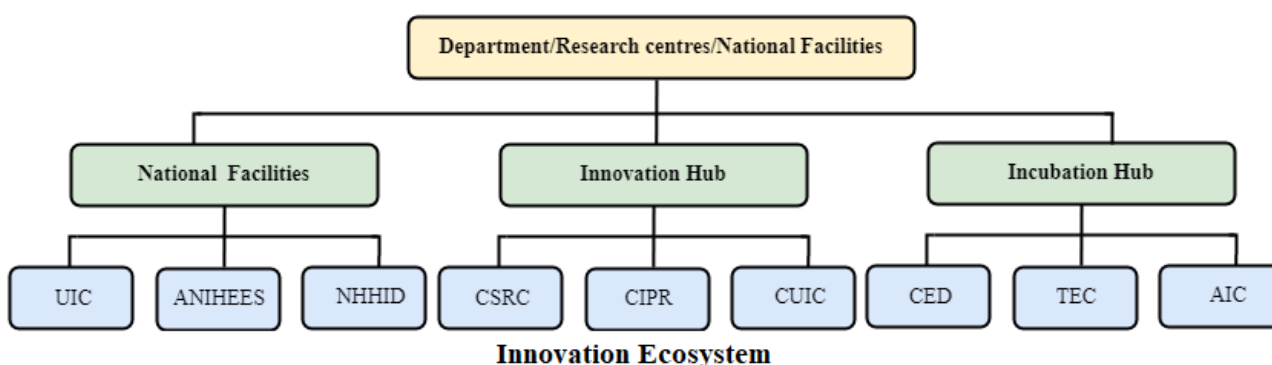
File Description	Document
Supporting document from Funding Agency	View Document
Institutional data in prescribed format	View Document
Paste Link for the funding agency website	View Document

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge.

Response:

Anna University has a well-defined ecosystem that includes innovation and incubation hubs along with national facilities listed as follows:



National Facilities

University Innovation Cluster (UIC) <http://www.uicbannauniv.com/>

- E-YUVA Centre, a University Innovation Cluster, has been developed to nurture the culture of applied research and need-oriented (societal or industry) innovation among researchers.
- It is funded by Biotechnology Industry Research Assistance Council (BIRAC) in collaboration with Anna University.
- In the year 2021-22, a total BIRAC funding amount of Rs. 274.05 lakhs was received by Anna university to promote applied research and innovation.

AU-NLCIL Innovation Hub for Energy, Environment & Sustainability (ANIHEES)

ANIHEES is an innovation hub, a collaborative initiative by Anna University and the Centre for Applied Research and Development (CARD), NLC India Ltd.

- The hub supports research in manufacturing, transport, energy, health, education, agriculture, water, and sanitation.

National Hub for Healthcare Instrumentation Development (NHHID) <https://www.nhhid.org/>

- NHHID has been established by DST under Technology Development & Transfer at Anna University.
- The NHHID is a platform for the collaboration of Scientists, Engineers, Technologists, Industrialists, Businessmen and Clinicians with an initial 5-year grant of 12.4 crores.
- It promotes and accelerates the development of indigenous healthcare instrumentation.

Innovation Hub

Centre for Sponsored Research and Consultancy (CSRC) <http://ctdt/annauniv.edu>

- The Centre for Sponsored Research and Consultancy takes up various initiatives to encourage and promote revenue-generating R&D activities at Anna University.
- It funds the faculty members and the pre-final year students through the Research Support Scheme of Young Faculty projects and Student innovative projects and recognizes their contributions with several awards.

Centre for Intellectual Property Rights (CIPR) <https://www.annauniv.edu/ipr/>

- The CIPR has been recognized as Technology Innovation Support Center (TISC) by the Department of Industrial Policy and Promotion (DIPP), Government of India, which identifies, protects, and manages Intellectual Property Rights (IPRs).
- From its inception in 2005, CIPR has filed over 300 patent applications; of these, 65 patents have been granted as of June 2022.

Centre for University-Industry Collaboration (CUIC) <https://www.annauniv.edu/CUICCentre/>

- CUIC is the interface between Anna University and its industry partners and facilitates student placement, internships, and collaboration activities.
- IT (product and service) companies, core engineering organizations, consulting firms, and banking and financial institutions sectors are catered to by the CUIC.

Incubation Hub

Centre for Entrepreneurship Development (CED) <http://auced.com/>

- CED of Anna University conducts various programs to kindle the entrepreneurial aspirations of students.
- CED's unique initiatives include Makers Lab, EDC Library, Entrepreneurship Forum for Girls,

CAPITALIZE – the Entrepreneurship Club of Students, and Entrepreneurship through Organic Farming

Technology Enabling Centre (TEC) <https://www.annauniv.edu/pdf/20200829141230.pdf>

- The primary objective of TEC is to enable the commercialization of technologies that are emerging thrust areas and socially relevant.
- TEC acts as a channel between the Industry and Anna University for anything related to entrepreneurship ventures across Tamil Nadu.

Atal Incubation Centre (AIC) <https://annaincubator.org/>

- AIC is a Section 8 company formed to manage funds of the AIC by Anna University with a grant from Atal Innovation Mission at Niti Aayog, Government of India.
- The foundation strives to support innovation, incubation, and startup services to budding entrepreneurs.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

Response: 430

3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
92	144	92	52	50

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document

3.3.3 Number of awards / recognitions received for research/innovations by the institution / teachers / research scholars / students during the last five years.

Response: 247

3.3.3.1 Total number of awards / recognitions received for *research* / innovations won by institution / teachers / research scholars / students year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
66	54	56	42	29

File Description	Document
Institutional data in prescribed format	View Document
e- copies of award letters	View Document

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

Response: A. All of the above

File Description	Document
Code of ethics for Research document, Research Advisory committee and ethics committee constitution and list of members on these committees, software used for Plagiarism check, link to Website	View Document
Any additional information	View Document

3.4.2 The institution provides incentives to teachers who receive state, national and international recognitions/awards 1. Commendation and monetary incentive at a University function 2. Commendation and medal at a University function 3. Certificate of honor 4. Announcement in the Newsletter / website

Response: A.. All of the above

File Description	Document
Institutional data in prescribed format	View Document
e- copies of the letters of awards	View Document

3.4.3 Number of Patents published / awarded during the last five years.

Response: 268

3.4.3.1 Total number of Patents published / awarded year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
110	69	37	33	19

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.4 Number of Ph.D's awarded per teacher during the last five years.

Response: 3.02

3.4.4.1 How many Ph.D's are awarded within last five years.

Response: 1219

3.4.4.2 Number of teachers recognized as guides during the last five years

Response: 404

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
URL to the research page on HEI web site	View Document

3.4.5 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Response: 7.6

3.4.5.1 Number of research papers in the Journals notified on UGC website during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
1827	1307	1248	976	1001

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.6 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

Response: 3.08

3.4.6.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
565	499	439	535	537

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.4.7 E-content is developed by teachers :

- 1. For e-PG-Pathshala**
- 2. For CEC (Under Graduate)**
- 3. For SWAYAM**
- 4. For other MOOCs platform**
- 5. Any other Government Initiatives**
- 6. For Institutional LMS**

Response: A. Any 5 of the above

File Description	Document
Institutional data in prescribed format	View Document
Give links or upload document of e-content developed	View Document

3.4.8 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

Response: 8.42

3.4.9 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution

Response: 84.5

3.5 Consultancy

3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy.

Response:

The Centre for Technology Development and Transfer (CTDT), renamed as Centre for Sponsored Research and Consultancy (CSRC) at Anna University, is responsible for interacting with internal and external stakeholders. It acts as a single window for partnership with industries and R&D establishments for research, consultancy, and training programmes of the University.

The key features of the consultancy policy of CSRC are as follows:

- The CSRC formulates guidelines, including revenue sharing between the institution and the individuals and encourages the faculty to undertake consultancy.
- The CSRC encourages faculty to undertake consultancies with external agencies by applying their expertise and specific knowledge base, in turn serving society.
- Consultancy services enhance the credibility of the University's research acumen to the outside world.
- The Company/Organizations/Governments/Individuals can contact the consultants or vice-versa for services/solutions.
- The consultant (faculty) can propose the budget requirement for the consultancy work based on the work volume.
- The professional expertise and knowledge of the faculty, as well as the infrastructural facilities of the University, are utilized.

Retainer Consultancy

The expertise of the faculty, without the use of any University facility, is provided either at the University or on the premises of the client; such consultancy shall be taken up on a Retainer basis, with prior approval of the CSRC.

Procedure

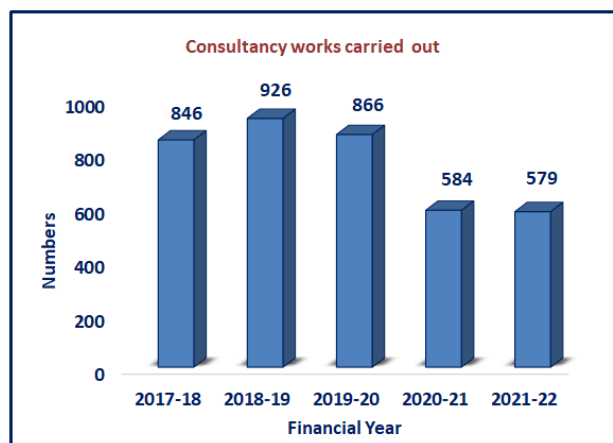
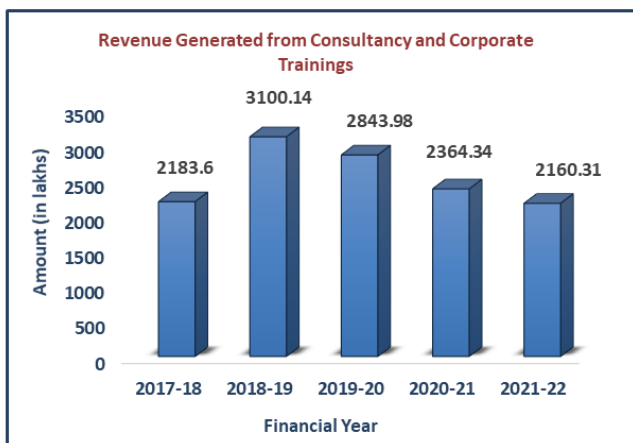
Provide advisory services without using the facilities at the University, either at the client's place or in the University. The duration of the assignment shall be for a specific period of three months, six months, or one year, as per the client's needs, with periodic visits restricted to half a day or one day a week.

MOU/Agreements/Contracts

All MoUs related to Projects, Consultancy, Testing, and Training are processed by the CSRC Director and placed in the Syndicate for approval.

- The MoU is signed by the Registrar on behalf of Anna University.
- All Memoranda of Agreements (MoA)/contracts for consultancy work/projects are signed by the consultants/Principal Investigators with the prior approval of the Director CSRC after legal vetting.
- The CSRC takes up consultancy projects, training, and testing.

Website Link of the policy document: <http://ctdt.annauniv.edu/downloads/pdf/guidelines2021.pdf>



File Description	Document
Upload soft copy of the Consultancy Policy	View Document
Paste URL of the consultancy policy document	View Document

3.5.2 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 12660.96

3.5.2.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

2021-22	2020-21	2019-20	2018-19	2017-18
2159.82	2364.20	2853.22	3100.13	2183.59

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts indicating the revenue generated through consultancy	View Document
Any additional information	View Document

3.6 Extension Activities

3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years.

Response:

Anna University organizes several extension activities in the institute-neighborhood community through National Service Scheme (NSS), National Cadet Corps (NCC), Youth Red Cross (YRC), and Centre for University-Industry Collaboration (CUIC) to sensitize the students toward community needs.

Extension activities through 23 NSS Units

- Seven days of residential camps were organized in 23 adopted villages across the State from 2017-2020.
- Around 500 NSS Student volunteers were involved in Lake cleaning activities flagged under Swachh Bharat (Clean India) initiatives.
- Tree plantation drives to promote the Green India initiative were extensively carried out, which comprised 2100 samplings plantations through 15 programmes organized adopting the concept of “One student, one tree” during the period 2017-2022.
- Two day State Level Confederacy: “We-the volunteers to edify youth integration (Edition 2)” was organized in 2018, which included 136 students to empower volunteerism with a spectrum of societal and interpersonal sessions.
- A two-day workshop on Janjatiya Gaurav Divas-Azadika Amrit Mahotsav was organized to empower leadership qualities among school students. It comprised programmes such as the First Aid Awareness program and drone show.
- Around 800 students participated in various Swachh Bharat schemes under Unnat Bharat Abhiyan, funded by the Government of India. Five NSS units received a grant of Rs.10000 per unit for two years between 2018-2020.
- The ‘State Youth Parliament 2019 – Tamil Nadu’ was organized by the NSS, under the Ministry of Youth Affairs and Sports, GoI, in association with NSS Regional Directorate, Chennai, on 06.02.2019 at Anna University.

Extension activities through 5 NCC Units (Army-Engrs, EME, Signals; Navy-Division I and II)

- National Integrity programmes
- Anti-Tobacco Rallies
- Public awareness about electoral roll enrolment and general elections
- Walkathons to spread awareness about Hepatitis B and C disorder patients
- Hallowing Marathons for Down syndrome awareness
- Women Empowerment awareness rally
- Roads Safety Programmes- NCC cadets participated in a 50km cycle rally – to promote green living principles for a cancer-free environment

Extension activities through YRC

- Blood donation camps and Eye checkup camps.

- Guidance for visually challenged.
- Fire Fighting Mechanism.
- Rescue Activities.
- Personality Development Programmes.
- Green initiatives, etc.

Extension activities through CUIC

- The Employability-Skill Enhancement Programme (E-SEP), sponsored by M/s Renault Nissan Technology & Business Centre India Private Limited (RNTBCI), was organized to enhance student employment opportunities. 1011 students benefited in 2017-18, and 1062 students benefited in 2018-19.
- The Sensitization Programme on Career Opportunities in Mechanical Engineering for girl students and women in Mechanical (Win-Mech), sponsored by M/s Renault Nissan Technology & Business Centre India Private Limited (RNTBCI), aimed at creating awareness of the career opportunities in Mechanical Engineering for girl students studying in the 10th standard in Government and Government Aided and other Private schools across Tamil Nadu. 5693 school students benefited in 2018-19, and 5386 school students in 2019-20.
- Employability Skill Building Programme was sponsored by M/s Titan Company Limited.

File Description	Document
Upload any additional information	View Document

3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the last five years

Response: 73

3.6.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
18	27	15	6	7

File Description	Document
Institutional data in prescribed format	View Document
e-copy of the award letters	View Document

3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC,

Government and Government recognised bodies during the last five years

Response: 163

3.6.3.1 Number of extension and outreach programs conducted by the institution those through NSS/NCC, Government and Government recognised bodies during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
35	21	39	40	28

File Description	Document
Reports of the event organized	View Document
Institutional data in prescribed format	View Document

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 38.23

3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
8273	2479	4414	5206	5137

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document

3.7 Collaboration

3.7.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year

Response: 172.8

3.7.1.1 Total number of Collaborative activities with other institutions / research establishment / industry for research and academic development of faculty and students year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
280	201	123	154	106

File Description	Document
Institutional data in prescribed format	View Document
Copies of collaboration	View Document

3.7.2 Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.

Response: 146

3.7.2.1 Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research year-wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
36	28	21	33	28

File Description	Document
Institutional data in prescribed format	View Document
e-copies of the MoUs with institution/ industry	View Document

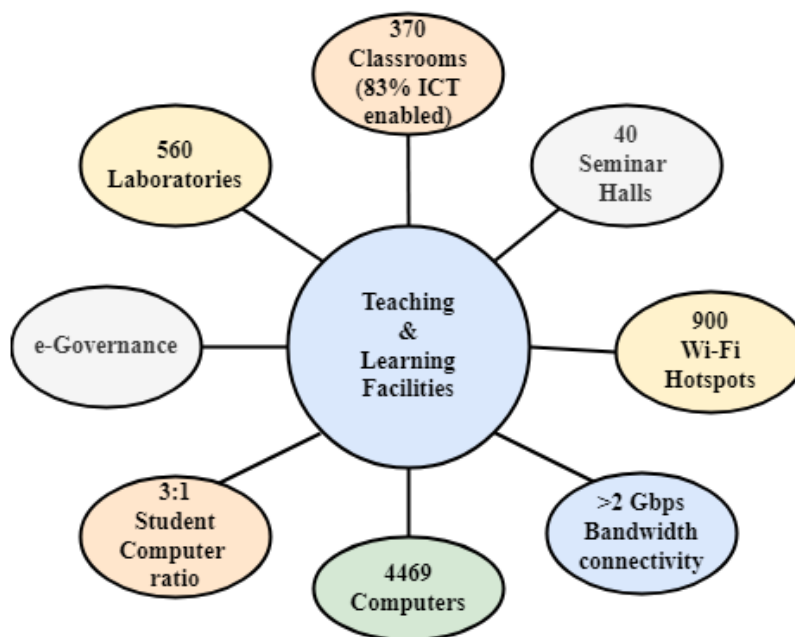
Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.

Response:

Anna University makes every effort to ensure that the best facilities are provided to the stakeholders. The University has a dynamic infrastructure policy considering the available physical resources and projections for the future. The University, during the period under assessment, expanded its infrastructure facilities with a budget of Rs. 680 crores.



Facilities for Teaching-Learning

Classrooms and Laboratories

University Departments of Anna University are in the Main (CEG, ACT, and SAP) and the MIT campuses. 370 classrooms (with 83% ICT enabled), 28 drawing halls, 560 laboratories, 4469 computing facilities, 40 seminar halls, and 9 auditoria are distributed in these campuses. Besides, three new teaching complexes with additional classrooms have also been added in the past 5 years. Most of the classrooms have digital facilities with LAN/Wi-Fi connectivity.

Central Computing Facilities

The Ramanujan Computing Centre is the central computing facility at Anna University. Computing facilities are also set up in every department to provide easy access to students. There are 4469 computers with a student/computer ratio of 3:1. The internet bandwidth is more than 2 Gbps.

State-of-the-art facilities are provided for the faculty and students to enrich their studies and research, which include 34 ML workstations with high-end NVIDIA GPU, Adobe Suit Design lab, exclusive 24/7 200 computers to conduct classes and research, more than 10 Web and Application Servers for hosting the

University website and applications used by various centres, department details, unlimited MATLAB license for research, Jupyter lab hosted in server for students access, etc.

Laboratory Facilities

Every department has well-equipped, state-of-the-art laboratory facilities. During 2020-2021 special grants of Rs. 75 crores was allotted for lab modernization. Research Laboratories also support the teaching-learning process for advanced learners.

The developments made in the infrastructure across the four campuses have enabled the institution to reach many milestones:

- **QS World University Ranking (2023):** Anna University secured the 551-560 rank.
- **NIRF (2022):** 20th rank under the University category, 17th under the Engineering category, and 22nd under the Overall category.
- **Clarivate Award (2021):** Anna University received the Clarivate India research Citation Excellence Award.
- **The Times Higher Education (THE) World Ranking (2020):** Anna University secured the 7th Rank for SDG 6 - Clean Water and Sanitation.
- **Academic Ranking of World University (2019):** Anna University secured the 11 -16th position in the national ranking.
- **UGC - University with Potential for Excellence (UPE) (2018):** In Biomedical Engineering & Instrumentation.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.2 The institution has adequate facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)

Response:

Anna University ensures holistic student development by providing the best facilities for showing their innate talents in co-curricular and extracurricular activities, including cultural activities, Yoga, indoor and outdoor games, and sports. The various facilities available for student support activities are listed below.

Facilities for Cultural activities

- Vivekananda Auditorium (1200 capacity – with centralized Air-Conditioned, green room, and projection facilities)
- Tag Auditorium (300 capacity – with centralized Air-Conditioned, green room, and projection facilities)

- Rajam Hall (300 capacity – with centralized Air-Conditioned, green room, and projection facilities)
- Aircraft Hangar (1500 capacity)
- Open Air Theatre (OAT) (1000 capacity) – 3 Nos

Facilities for Indoor/Outdoor activities

For Indoor

- Yoga Open Hall
- Basketball Court – Synthetic Court
- Badminton Court
- Synthetic Tennis Court
- Boxing Facility
- Billiards
- Twister Aerobics Exercise
- A/C Gym Facility (Separate for Boys and Girls)
- Carrom Board Facilities
- Chess Board Facilities

For Outdoor

- Volleyball Court - 03 Nos
- Hand Ball Court – 03 Nos
- Outdoor Badminton Courts -02 Nos
- Outdoor Gym Facility- 03 Nos
- Synthetic Tennis Court - 02 Nos
- Kho – Kho Court – 03 Nos
- Kabaddi Court - 02 Nos
- Mud Tennis Courts - 04 Nos
- Swimming Pool (Area 9266 sq.ft)
- Foot Ball Field - 02 Nos
- Cricket oval - 06 Nos
- Hockey field with all amenities
- Running Track & Field with all facilities – 400-meter track at MIT & CEG Campuses.
- Artificial Wall Climbing Fitness Facility
- Vaulting and Ground Equipment

Facilities for Student Activities - Technical/Cultural Festivals

All the student-related technical and cultural festivals are conducted in the indoor and outdoor auditoria of Anna University, namely Vivekananda auditorium, TAG auditorium, Rajam Hall, Aircraft Hangar, 3 Open Air Theaters, etc.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.3 Availability of general campus facilities and overall ambience

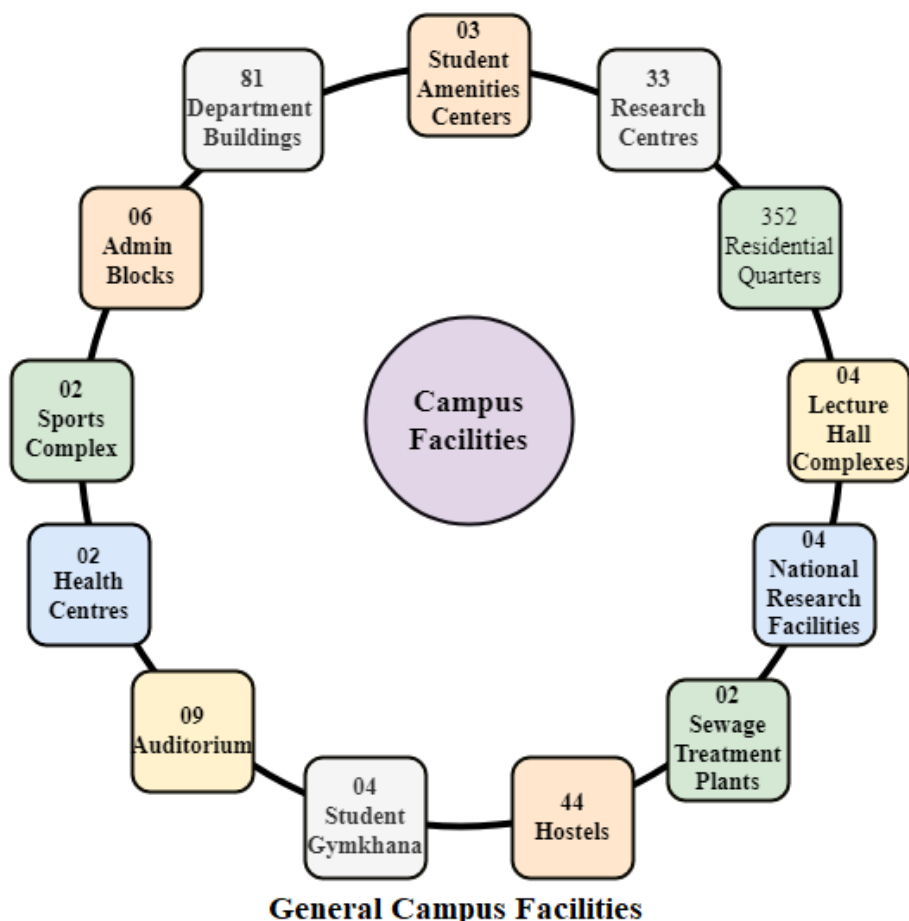
Response:

The overall ambience and general campus facilities of Anna University are a valuable addition to the Teaching, Learning, Research, and Extension activities. The campus is green, environment-friendly, and well-connected. It provides a comfortable and creative environment to both faculty and students.

In addition to 370 classrooms, 70 computational facilities, 560 laboratories, 03 libraries, 44 hostels, and sports facilities, the following facilities are also provided in the University to meet the needs of the faculty and students.

- Residential quarters of 352 numbers for faculty and staff.
- University Guest House of 4 numbers to accommodate guests and parents.
- Two Health Centres (Main & MIT campuses) are equipped to handle emergencies and routine medical needs.
- Health Insurance for staff and students.
- Secure, high-speed internet service of more than 2 Gbps is provided to faculty and students through NKN and major service providers.
- All the network traffic is secured and load balanced by NGFW firewall & Web Application Firewall (WAF).
- Secured Wi-Fi facility is provided through 900 indoor access points & 200 outdoor points. Internet trees with Wi-Fi hotspot and electrical fittings for charging paves the way for accessing the internet seamlessly (CEG – 14, ACT-2 & SAP-1, MIT-6).
- Students are provided Virtual Machines and licensed software for specialized labs, like the multimedia lab with Adobe package.
- Rich computational resources include 28 high-end servers, 40 TB SAN storage devices, and workstations extensively utilized by students & research scholars.
- IPSec VPN connectivity for accessing Intranet applications (Main & MIT Campuses)
- Banking facilities SBI, Canara Bank, Indian Bank, and ATMs to satisfy the banking requirements of faculty and students.
- Post office facility is available inside the University with the pincode 600025.
- Dining facilities include canteens, cafeterias, mega mess, food court (with digital billing facility), and restaurants.
- Student Amenities Centre facilitates photocopy and laundry services.
- The cooperative society for students is stocked with stationery items and other academic necessities at a subsidized rate.
- On-campus stationery stores, dressing saloons, tailors, and laundry services.
- Transport facility and Logistics Centre for the benefit of faculty and students.
- Free of cost e-Vehicles facility.
- Vehicle Parking Facilities at different locations within the campuses.
- Sewage treatment plants and recycling of treated water to maintain campus greenery.

- Bio methanation Plant for food waste management.
- Energy conservation, Rainwater Harvesting, and Waste Management facilities.
- Anna FM - Community Radio.
- Smart Vehicle entry with Automatic Number Plate Reading System.
- All required access is available for the differently abled (Divyangjan), such as tactile paths, lifts, ramps, restrooms, etc.
- Day Care Centre catering to the daycare needs of the children teaching and non-teaching staff.



Several Central facilities, such as the Centre for Sponsored Research and Consultancy (CSRC), Centre for Intellectual Property Rights (CIPR), Centre for University-Industry Collaboration (CUIC), Siemens Centre of Excellence, AU-FRG, CAD/CAM facilitate the research, patent registration, placement, and consultancy activities of the faculty members and students. Thus, all the required facilities for faculty, students, and staff are provided in the University's four campuses.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

Response: 49.77

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
4427	6380	4144	9726	2241

File Description	Document
Upload audited utilization statements	View Document
Institutional data in prescribed format	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS) and has digitisation facility

Response:

The Central Library in the University houses a massive collection of 2,71,809 books, 220 current periodicals, 44918 journal back volumes, 2500 e-books, 30000 e-journals/databases, and 18005 books in the SC/ST book bank. It serves the University departments' faculty, students, and scholars. An average of Rs. 5 crores is allocated every financial year to purchase books, journals, and e-resources.

Automated Library Management

Library Resources and Services have been automated through the AutoLib – Library Management Software (ILMS) integrated with RFID since 2006. The ILMS performs all library functions, such as the circulation of books and a web-based search interface for users through OPAC (Online Public Access Catalog). Using OPAC, users can search the library online catalog by Author, Title, Subject, and Keywords. The users can know the recent additions of periodicals and books and the status of documents with location (whether on the shelf or issued). AutoLib supports the SMS-based alert system for book issues, return/renew/overdue, and book catalog creation. RFID technology supports the technology-enabled automatic circulation of books. A smart card-based user entry system helps improve library services and generates footprint reports. Surveillance cameras (CCTV) are installed in various places in the library to monitor user activities.

Digitization through Digital Knowledge Center (DKC)

The library has a full-fledged Digital Knowledge Center with 50 computers. The DKC is a gateway to e-resources, a one-stop-shop for nascent information handling and transfer, and a boon to the knowledge seeker. A competent team of library professionals maintains the University library web page. It is updated every week. The following link opens the library web page. <https://library.annauniv.edu/>.

Digitization through INFLIBNET

The University library is a part of the Shodhganga project, a reservoir of Indian theses by INFLIBNET Centre and a platform for research scholars to deposit their Ph.D. theses and make them available to the entire scholarly community. In this digital repository project, Anna University has been ranked 1st place in South India and 3rd in India out of the 397 contributing Universities by submitting 8951 theses. In addition, the library has the facility to upload research articles online to URKUND and TURNITIN software and get the similarity report to avoid plagiarism in research activities. The University library is also a part of the e-ShodhSindhu Consortium and Knimbus for access to e-resources. This service extends to all four campuses of the University.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

Response: A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 294.4

4.2.3.1 Annual expenditure for the purchase of books and journals including e-journals year-wise during last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
398.42	289.47	296.74	299.97	187.40

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

Response: 74.27

4.2.4.1 Number of teachers and students using library per day over last one year

Response: 9227

File Description	Document
Details of library usage by teachers and students (Library accession register, online accession details to be provided as supporting documents)	View Document

4.3 IT Infrastructure

4.3.1 Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities. (Data for the latest completed academic year)

Response: 80.73

4.3.1.1 Number of classrooms and seminar halls with ICT facilities

Response: 331

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Paste link for additional information	View Document

4.3.2 Institution has an IT policy, makes appropriate budgetary provision and updates its IT facilities including Wi-Fi facility

Response:

Anna University provides state-of-the-art communication, software development, and computational services to meet the dynamic needs of University departments through the Ramanujan Computing Centre (RCC).

Realizing the need for state-of-the-art IT infrastructure, essential for teaching, research, and extension, Anna University has invested an average of about Rs. 1 crore (2017-2022) for the upgradation of IT infrastructure in the last 5 years. The University has an approved IT policy emphasizing content creation, ownership, transfer, usage, backup, recovery, rental, disposal, security, and privacy. It has adequate facilities for legal/disciplinary actions in case of violation.

Salient features of the IT Policy

- Governance of computing and networking resources across four campuses.
- Expert committee approved IT specifications, purchases, and installations according to accepted standards and guidelines.
- Accessibility control of IT resources.
- Monitoring of all computing and networking resources.
- Adherence to the policy during purchase itself.

Process of implementation and adherence to the policy

The implementation and enforcement of compliance with the below-mentioned IT policies are entrusted with Ramanujan Computing Centre:

- **Access control policy:** Administrators, Faculty, Administrative, and Technical staff are categorized, and access privileges are provided based on Vice Chancellor's approvals. Authentication to some of the services is through Active Directory.
- **Data log and retention policy:** All data pertaining to web servers, firewalls, and access logs are stored and retained for 15 days.
- **Confidential data access policy:** Payroll, marks, and employee details maintained at RCC are access controlled to approved personnel only.
- **User accounts creation and maintenance policy:** Categories like Faculty, Students, and Staff are maintained, and their accounts are terminated upon leaving the institution.
- **Video surveillance policy:** Server farms and critical IT infrastructure are continuously monitored. The recordings are preserved for 15 days.
- **Hostel IT Access policy:** Proctored access to the internet and internet applications. Control of access points usage and monitoring.
- **Accessibility to the Internet:** Internet access through the firewall is provided through LAN and Wi-Fi to all computers at the University.
- **Adherence:** The server, firewall, and subnet restrictions enforce the policy.

Implementation of budgetary provisions, utilization, and the expansion plan

Budgetary provisions and utilization

- Every year an average of about Rs. 25 lakhs is allocated for maintaining hardware, server, networks, and computer-related equipment. Rs. 50 lakhs is allocated for purchasing new computers, networking, and accessories.

Expansion plans: (upgradation)

- **Web:** Additional servers with storage to meet growing demand.
- **Network:** Increasing Wi-Fi coverage with additional indoor and outdoor antennas and strengthening the network backbone with network switches, routers, and passive components.
- **Computing:** Under lab modernization, low-end computers will be replaced with high-end workstations. A proposal to set up a centralized High-Performance Facility (HPC) facility has been sanctioned. A single sign-on facility for all computing services, MATLAB, and other online resources/software are also underway.

- **Green computing initiative:** Solar-powered server and computer operations have been initiated inside the campus to promote renewable energy sources.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.3.3 Student - Computer ratio (Data for the latest completed academic year)

Response: 2.59

File Description	Document
Upload any additional information	View Document
Student – computer ratio	View Document

4.3.4 Available bandwidth of internet connection in the Institution (Leased line)

Response: A. ?1 GBPS

File Description	Document
Upload any additional information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

Other Upload Files

1

[View Document](#)

4.3.5 Institution has the following Facilities for e-content development

1. Media centre
2. Audio visual centre
3. Lecture Capturing System(LCS)
4. Mixing equipments and softwares for editing

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Links of photographs	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Response: 50.23

4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
4089	4214	6280	5709	4372

File Description	Document
Institutional data in prescribed format	View Document
Audited statements of accounts	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Response:

The classrooms in Anna University are maintained by the Estate Office in the University. The Laboratories are maintained by the respective Departments/Centers by the technical staff under the supervision of the Head of the Department/Director. An average of Rs. 200 crores is sanctioned for the annual maintenance of facilities which is taken care of through the AMC signed with the company/by the service personnel appointed for the same.

Being a technical University, an in-house facility is available to maintain various physical facilities. The Ramanujan Computing Centre maintains all the computer facilities. The Director of the Library ensures proper maintenance of the physical facilities available in the library. The Physical Director, along with multi-tasking workers, ensures proper maintenance of sports facilities. The Estate Office has a separate wing for the maintenance of infrastructure facilities. The IT infrastructure policy of the institution spells out its expansions/upgradation and maintenance of the IT infrastructure of the University. Annual maintenance week is observed every year during January.

Procedure for maintaining Computer support facilities

- The Ramanujan Computer Centre (RCC) is responsible for purchasing and maintaining all IT equipment through the common purchase committee, including computers, surveillance cameras, networking components, and internet connectivity.
- The Centre for e-governance provides smart governance using IT-enabled technologies to ensure transparency and enhance efficiency in delivering services to students, teachers, staff, administrators, and other stakeholders.

Procedure for maintaining Academic support facilities

- The planning, construction, and maintenance of laboratories, classrooms in academic buildings, administrative buildings, library buildings, and central facilities are taken care of by the Estate office, which was established in 1994 (previously called Maintenance cell) with permanent staff for Civil/Electrical/Horticulture sections.
- The Estate office is headed by an Estate Officer in the cadre of a professor. It comprises Civil & Electrical engineering sections, an Accounts Branch Section (AB Section), and Drafting Section (DB Section).
- The Tamil Nadu Transparency and Tender Act (TNTT Act), Rules & Regulations of Tamil Nadu Public Works Department (TNPWD), Government of Tamil Nadu, and the Finance & Accounts Manual of Anna University are being followed for all major and minor works (with due approval of the Registrar and the Vice-Chancellor) carried out in the four campuses of the University.

Procedure for maintaining Physical support facilities

- The Estate office carries out repairs and maintenance of minor nature based on the complaints/requests from the occupying department. Complaint Registers are being maintained in the Estate office for the day-to-day repairs/maintenance.
- Financial provision for minor repairs has been made a separate Head in the University budget book under the head: M.H.No. 3 Campus Maintenance and Security Services.
- Repair works (estimated value less than Rs.10 lakhs) are executed by the contractor selected per the TNTT Act, Rules & Regulations of TNPWD, Government of Tamil Nadu, and the Finance & Accounts Manual of Anna University. The necessity of the repair works and execution required is assessed in the periodic review meeting of the estate office.

Other periodic maintenance

- Oil filtration in the Transformers: An exclusive 'C' license holder has been nominated to monitor the transformers in the powerhouse (11 kVA Electrical Substations) for uninterrupted power supply to the laboratories, classrooms, library, examination halls, computer centres, sports complex, etc.
- Power shutdowns are made only after advance information to the Departments via circulars.
- Inside and outside painting of the buildings is done once every 5 years.
- Roads inside the campuses are laid once every 5 years.
- Security services are provided around the clock.
- Periodic Gardening and Tree plantation.

Procedures and rules followed for civil and electrical works

The Estate Office of Anna University has regular Civil & Electrical Engineers to prepare estimates and monitor construction (including M.Book entry) and bill preparation. The structure of the Estate Office at Anna University is shown in the figure.

The procedure of carrying out work

Works are categorized as;

- Upto Rs.2 lakhs
- Above Rs.2 lakhs & upto Rs.6 lakhs
- Above Rs.6 lakhs & upto Rs.10 lakhs
- Above Rs.10 lakhs - upto Rs.25 lakhs and above Rs.25 lakhs

Procedure (Tendering and awarding)

a) Upto Rs. 2 lakhs

- Estimate prepared by Engineer (JE/AE) Civil and Electrical on receipt of the request from the user Department or on instructions of Estate Officer or Registrar.
- Sanction accorded by Estate Officer.
- Quotations invited from PWD Registered Contractors working in the University with a 2-week timeline.
- Quotations are opened, a comparative statement is prepared, negotiation is held, and the contract is awarded for L1.
- Agreement executed in stamp paper, Rs. 20 value signed, and work order given with terms & conditions following TNPWD procedures.

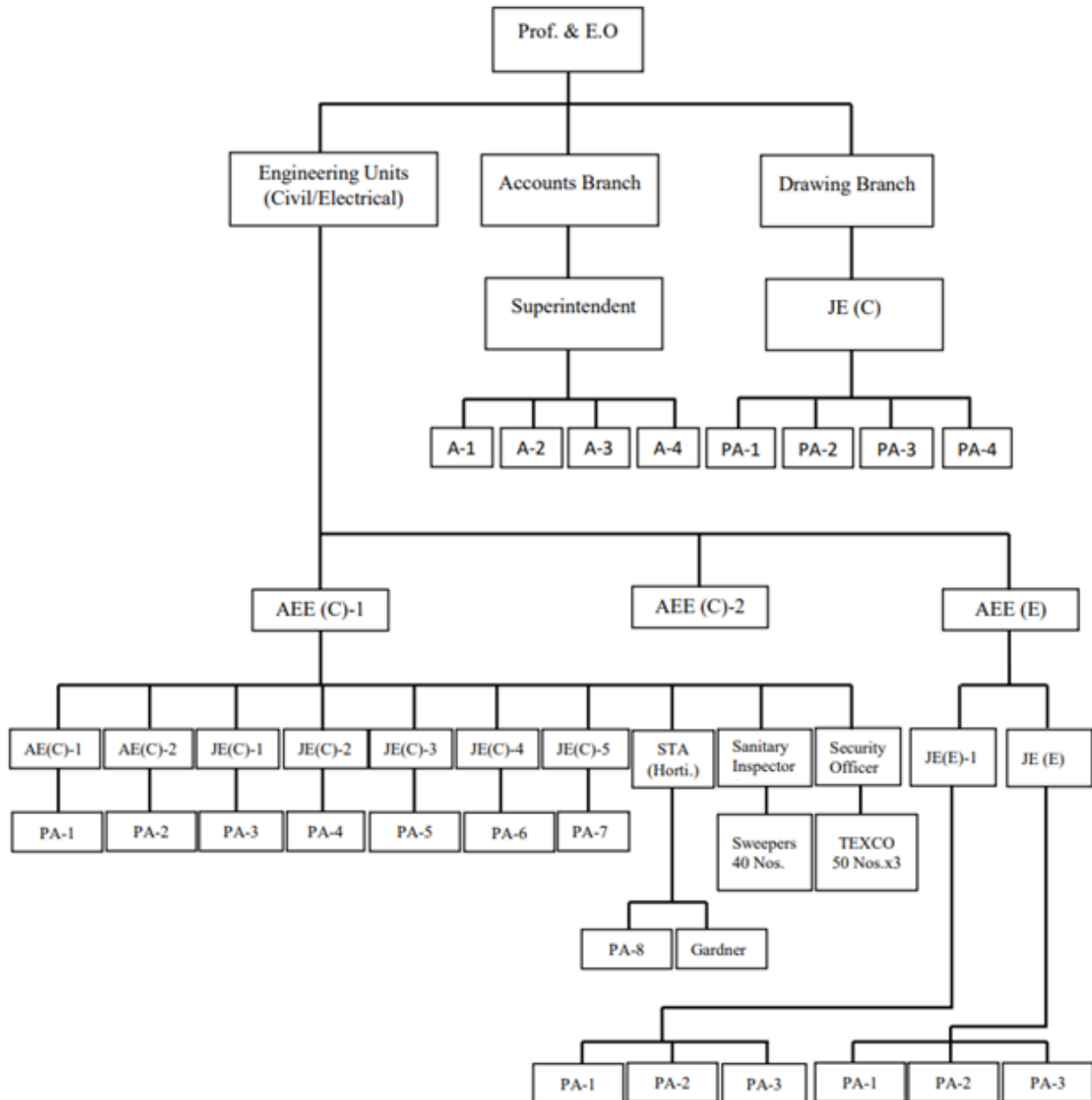
b) above Rs. 2 lakhs & upto Rs. 6 lakhs

- Estimate prepared by Engineer (JE/AE) Civil and Electrical.
- Sanction accorded by Estate Officer. Tender Notice published on the Anna University website & Estate Office notice board.
- Tender document prepared and issued to eligible PWD registered contractors on request.
- Sealed tenders are submitted in the tender box. Tender receiving is closed at 3.00 p.m. of the deadline. The tender is opened at 3.30 pm on the same day in front of the applicants.
- The Tender opened, a comparative statement was prepared, the negotiation was held, and the contract was awarded for L1.
- Agreement executed in stamp paper, Rs. 20 value signed, and work order given with terms & conditions following TNPWD procedures.

c) above Rs. 6 lakhs & upto Rs. 10 lakhs

- Estimate prepared by Engineer (JE/AE) Civil and Electrical.
- Sanction accorded by Registrar.
- Tender Notice published on the Anna University website & Estate Office notice board. Tender documents prepared and issued to eligible PWD registered contractors on request.
- Sealed tenders are submitted in the tender box. Tender receiving is closed at 3.00 pm of the deadlines. The tender is opened at 3.30 pm on the same day in front of the applicants.

- After the opening of tenders, a comparative statement is prepared, and after negotiation, the contract is awarded to L1.
- Agreement executed in a stamp paper, Rs. 20 value signed, and work order given with terms & conditions following TNPWD procedures.
- PWD procedures are to be followed from time to time.



AEE (C)- Asst. Exe. Engineer (Civil), AEE (E)- Asst. Exe. Engineer (Electrical),
 AE (C)- Asst. Engineer (Civil), JE (C) - Junior Engineer (Civil), JE (C) - Junior Engineer (Electrical),
 STA – Senior Technical Assistant, A- Assistant, PA-Professional Assistant

Organization Chart of Estate Office

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the institution, Government and non-government agencies (NGOs) during the last five years (other than the students receiving scholarships under the government schemes for reserved categories).

Response: 53.37

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2021-22	2020-21	2019-20	2018-19	2017-18
6797	6222	7034	8359	8119

File Description

Document

Upload any additional information

[View Document](#)

Institutional data in prescribed format

[View Document](#)

Link for additional information

[View Document](#)

5.1.2 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Response: 43.35

5.1.2.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
5860	2913	7104	6674	7276

File Description

Document

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

Link for additional information

[View Document](#)

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology

Response: A. All of the above

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link to Institutional website	View Document
Link for additional information	View Document

5.1.4 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies 2. Organisation wide awareness and undertakings on policies with zero tolerance 3. Mechanisms for submission of online/offline students' grievances 4. Timely redressal of the grievances through appropriate committees

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document
Link for additional information	View Document

5.2 Student Progression

5.2.1 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 87.19

5.2.1.1 Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.)) year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
211	113	166	106	104

5.2.1.2 Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
243	125	183	127	123

File Description	Document
Upload supporting data for the same	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.2.2 Average percentage of placement of outgoing students during the last five years

Response: 39.3

5.2.2.1 Number of outgoing students placed year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
2677	1682	1253	1374	1273

File Description	Document
Upload any additional information	View Document
Self attested list of students placed	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.2.3 Percentage of student progression to higher education (previous graduating batch).

Response: 8.74

5.2.3.1 Number of outgoing student progressing to higher education.

Response: 366

File Description	Document
Upload supporting data for student/alumni	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) during the last five years.

Response: 170

5.3.1.1 Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
38	22	38	46	26

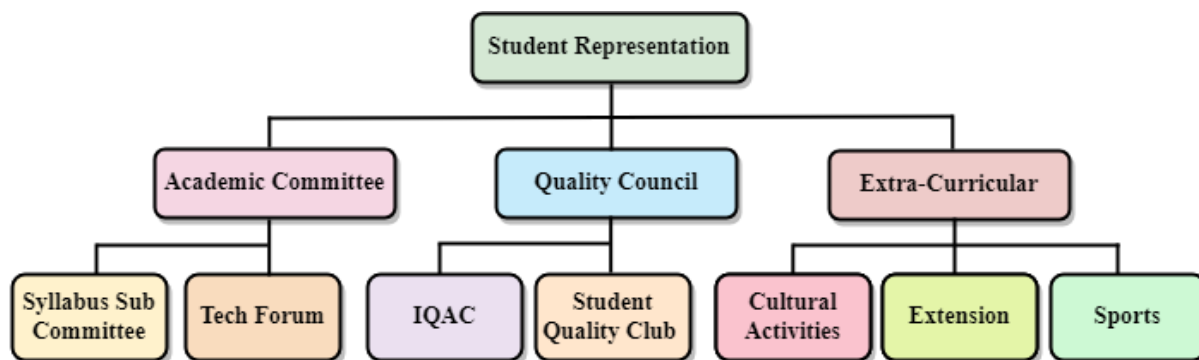
File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters and certificates	View Document
Link for additional information	View Document

5.3.2 Presence of Student Council and its activities for institutional development and student welfare.

Response:

Student representatives are members of the Syllabus Sub-Committee, Multiple Course Committee (MCC), Overall Monitoring Committee (OMC), Hostel Committee, and Canteen Committee, through which they share their ideas and discuss their issues. This involvement empowers the students with leadership skills, teamwork, and participatory decision-making. The syllabus sub-committee for each programme has two senior student representatives to participate in the curriculum and syllabus formulation. Student representatives in MCC and OMC are involved in academic decisions related to the course schedule, the nature of assessments, and related matters. The Course Committee meetings are held twice a semester for

each class with four students. The minutes of these meetings are forwarded to the Heads of Departments concerned for necessary action. All students participate in the online teacher evaluation survey and provide feedback at the end of each semester.



Student Council and its Activities

Student Representation (Technical Forum)

CEG Technical Forum, with 41 student members, organizes a UNESCO recognized Techno-Management festival, 'Kurukshetra' annually. The events include Technical Workshops, Projects, Paper presentations, and special technical events for school children. Athenaeum is a student body at MIT that promotes co-curricular and extracurricular activities. ROTARACT Club of SAP provides students with a platform to interact with rotaractors worldwide.

Students association functions in each department, and every year they organize technical symposiums, exhibitions, and guest lectures. The departments also have student chapters of international and national engineering associations such as IEEE, ACE, the Indian Institute of Chemical Engineers, the Institution of Engineers, the Society of Petroleum Engineers, the Indian Ceramic Society, etc. 223 programs have been arranged by student associations of the various departments.

Student Representation (Extension Activities)

Students Quality Council is the student organization at Anna University with industry patronage. It receives guidance and help from the House of TVS, Tata Consultancy Services, Ashok Leyland, Cognizant Technology Solutions, Rane Group, L&T ECC, SRF, Simpson, and many others. Students Associations and Arts Societies (SAAS) function at the 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 Corporate Relations and organizational skills represent the student's community in anti-ragging measures, organizing cultural events such as intra-college festival (SAMPRADHA), and inter-college festival (KALAKRITI), annual cultural festival (TECHOFES) Freshers Party, Independence Day and Republic Day celebrations.

Each hostel block has a student representative to coordinate with the hostel management to maintain the block. Each hostel mess has student representatives to co-coordinate with the hostel management to monitor food quality, quantity, and waste management.

Special tournaments are organized yearly, on a one-zone basis, in athletics, and other games, depending on the entries received for the physically challenged students interested in sports and games. There are more than 23 clubs in CEG for student welfare activities; noteworthy among them is Siruthuligal, a club that financially supports students from poor families.

All these avenues available to the students help them groom themselves into effective leaders. The very fact that more than 238 corporate heads of both national and international establishments are from Anna University, vouches for the training gained through participation in various committees, both academic and administrative.

File Description	Document
Upload any additional information	View Document
Link for additional information	View Document

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 39.6

5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
50	49	35	32	32

File Description	Document
Report of the event	View Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

Response:

Alumni Formation

Anna University was established by amalgamating 4 institutions: CEG, MIT, ACT, and SAP. The Alumni Association of the College of Engineering Guindy (AACEG) is one of the oldest Alumni associations in the country, functioning for the past 94 years with 25,000 members. It is registered under the Tamil Nadu Societies Act XXVII (1975). The Alumni Association functions in a two-story building on the campus with a seminar hall, dining facility, office space, and guest rooms created through the generous donation

from the Alumni at an overall cost of 89.85 lakhs. The Alumni Association of MIT was constituted in 1966. Since its inception, the Anna University Alumni Association has started chapters (11) in Mumbai, Hyderabad, Bangalore, Calcutta, New Delhi, Trichy, Kochi, North America, Singapore, Kuwait, and Dubai.

The Alumni Association of the School of Architecture and Planning (SAPAA) was established in August 2007. It enables a demonstration of the design, construction, and sharing of professional experience for the furtherance of fellowship amongst its members and the advancement of knowledge in the general interest of the student community. The ACTECH Alumni association was formally registered under the Tamil Nadu Societies registration act in 2018. The Departments in the campus have separate alumni associations. The 1989 batch of ACTECH alumni students started a separate society with a deposit of 30 lakhs, and the interest from the society is given every year to enable economically weaker students to pay their semester fees.

To network with the Alumni Association of the four institutions, a Centre for Alumni Affairs was formed in 2020 with a Professor as the Director of the Centre.

Alumni Contribution (Infrastructure)

The Association has provided infrastructure support such as the Hall of Guinness, TAG auditorium CEG, CEG Alumni Building, MIT Alumni building, AU-KBC Research Centre, Digital Knowledge Centre, 1958 CEG Alumni Digital Reading Hall, etc. The CEG Alumni support student activities such as cultural and technical festivals and events, career guidance programs, periodic endowment lectures, financial assistance (tuition and hostel fee), public awareness programs, and helping during national calamities. The Association honors distinguished alumni, celebrates Alumni Day, Genesis Day, Teachers Day, and Alumni Sports Day, and publishes monthly newsletters highlighting all the activities. The statue of the distinguished former alumnus Dr.A.P.J Abdul Kalam, dedicated by MIT Alumni, was opened on the MIT premises.

Alumni Contribution (IT Infrastructure)

An e-governance project worth Rs.1 crore was donated by the 1971 batch of CEG to Anna University on its Golden Jubilee celebration to facilitate paperless administration in the University smoothly and rapidly. 1958 CEG Alumni donated 18 notepads and surveillance cameras worth 6.55 lakhs to the University Central Library.

Alumni Contribution

The Associations contribute to the tune of 143 lakhs which encourages effective engagement of students in all activities. AACEG creates opportunities for students to display their talents by providing 90 endowment awards and 14 endowment lectures in the memory of eminent Faculty/Alumni in the field of their specialization every year.

Other Engagements

- Periodic Endowment lecture.
- Career guidance programmes for students.
- Financial assistance (tuition and hostel fee) and laptops for needy students.

- Public awareness programs.
- Helps during national calamities.
- Publication of a monthly newsletter highlighting the activities of the Association.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

5.4.2 Alumni contribution during the last five years (INR in Lakhs)

Response: A. ? 100 Lakhs

File Description	Document
Any additional information	View Document
Link for any additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance.

Response:

Vision

The vision of Anna University is to be a world-class institution by producing professionals with high technical knowledge, professional skills, and ethical values, and remain as a preferred partner to the industry and community for their economic and social development through excellence in teaching, research, and consultancy. Anna University shall be recognized as a point of reference, a catalyst, a facilitator, a trendsetter, and a leader in technical education.

Mission

Anna University shall contribute to the educational, economic, and social development by

- Producing students who are intellectually and technically equipped with well-defined knowledge, skills and ethics who are creative thinkers, inspiring leaders and contributing citizens.
- Introducing high quality academic and research programmes and providing extension services in cutting edge technologies.
- Ensuring a supportive campus climate with dynamic leadership and development opportunities to meet the needs of the students, faculty, and staff.
- Enhancing academic productivity through induction of quality faculty, accelerated graduation, credit banking, augmented continuing education opportunities and adoption of current technology sharing the intellectual resources and the infrastructural facilities among the academia from other institutions and among the industrial society, funding agencies and government.
- Enhancing the collaborative partnership between Industry and Institute for commercializing and transferring the latest technological know-how toward societal development.
- Setting up a Global University Network Campus that embodies the ideals of an open, democratic, and global society catering to the needs of the global community and satisfying cultural, ethnic and racial diversity.
- Expanding global participation spread across continents with the aid of interactive satellite-based education and the usage of digital library.
- Enriching the national and international character of the University ensuring efficient administrative coordination and effective decision making through necessary reforms and by strategically allocating resources.
- Benchmarking against technologically sound global leaders with a view towards continuous improvement.

Core Values of the Institutions

- **Excellence:** In teaching, research, and extension service. Commitment to the pursuit of excellence in individual and collective endeavors.

- **Accountability:** Integrity, Responsibility and Democratic with the highest ethical standards ingrained in all University Practices.
- **Teamwork and Collaborative Strategies:** Commitment to work together to achieve our shared vision, mission, and goals.
- **Student Centric Approach:** Commitment to providing an experience that ensures students engage in opportunities that stretch and challenge their self-perceptions, values, and beliefs.
- **Social Responsibility:** Active Participation in transformative, innovative, and lifelong learning in service to humanity.
- **Diversity and Equal Opportunity:** Cultivate a diverse and inclusive learning and work environment by increasing international expertise and participants.
- **Academic Freedom:** The freedom of inquiry and expression in teaching and research.
- **Safe Community:** A caring and safe community characterized by civility and respect stands in solidarity against any actions that exclude, discriminate against or silence members of our community.
- **Sustainability:** A vibrant community and campus known for research-intensive educational quality, economically sound, environmentally responsible, and socially just.
- **Accessibility:** Inclusive educational environment that is accessible and affordable.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

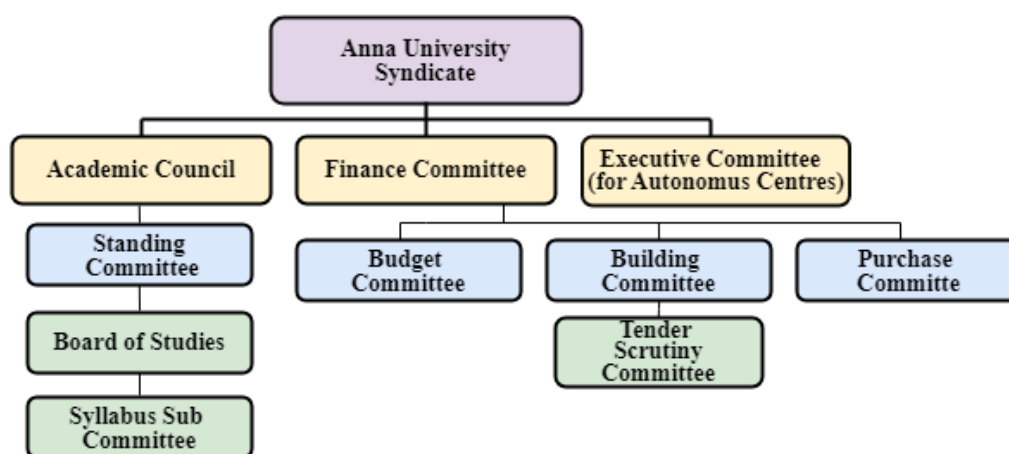
6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Response:

The decentralized system of governance is advocated and practiced at Anna University to ensure that the leadership moves closer to the key stakeholders and facilitates a better chance of them taking part in the governance.

Apex body and Other governing bodies

The decision-making is done transparently for the 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.



Decentralized Governance

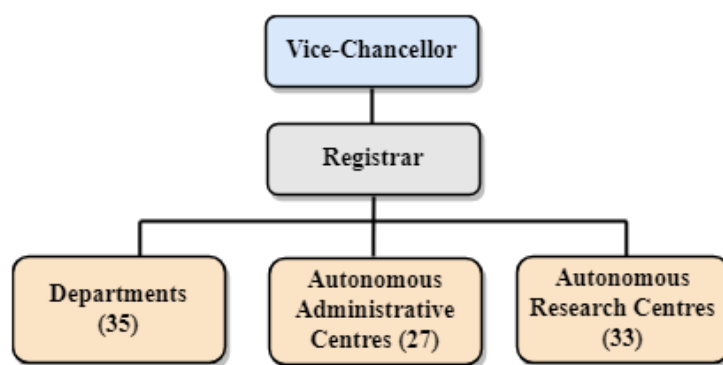
Decentralization of Academic and Research activities

The student support and academic activities are decentralized by dividing the University into 35 departments distributed on 4 campuses managed by the respective Deans and the Heads of Departments. There are 60 Centres with financial and functional autonomy, of which 33 are research centres focusing on advanced research in emerging technology areas. Some of the administrative centres are meant to facilitate academics and research. The Centre for Sponsored Research and Consultancy, Centre for International Property Rights, Centre for University-Industry Collaboration, University Innovation Cluster, Atal Incubation Centre, and Technology Enabling Centre are unique support systems for enabling inventions and innovations of the University to reach society through industries and commercialization.

In addition, Anna University houses unique national research centres such as the National Hub for Healthcare Instrumentation Development (NHHID), the National Centre for Sustainable Coastal Management (NCSCM), the Crystal Growth Centre (CGC), and the Institute of Remote Sensing (IRS).

Decentralized Governance Model

Each department functions as a separate sub-unit, with functional autonomy, in deciding and implementing student-centric programmes and activities. The Departmental Consultative Committee, constituted for each department, meets periodically for administration purposes. The Multiple Courses Committee is constituted for every batch of students every semester to address their academic needs. The HoDs conduct faculty meetings regularly to discuss department-level matters. The Deans hold regular meetings with the HoDs of their campuses. The Vice-Chancellor holds periodic meetings with Directors, Deans, and HoDs to achieve collective wisdom in making policy decisions and steering the various activities. The Vice-Chancellor also conducts meetings with all the teaching and non-teaching staff at the beginning of every semester, providing a platform for open discussions, thus encouraging everyone to contribute towards the effectiveness and efficiency of the institutional process.



Administrative Setup

There are 27 centres exclusively for administration, facilitating academic, research, extension, and administrative activities of the students and faculty members.

Involving the Students and Alumni

The Student Representatives of the Multiple Courses Committee highlight the academic and other issues related to their class. They also participate in framing assessment schedules for the internal and lab tests, etc. The students and alumni representatives of the syllabus sub-committees give feedback on the existing syllabus based on their requirements for higher studies in foreign universities, requirements from the industries, etc.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.2 Strategy Development and Deployment

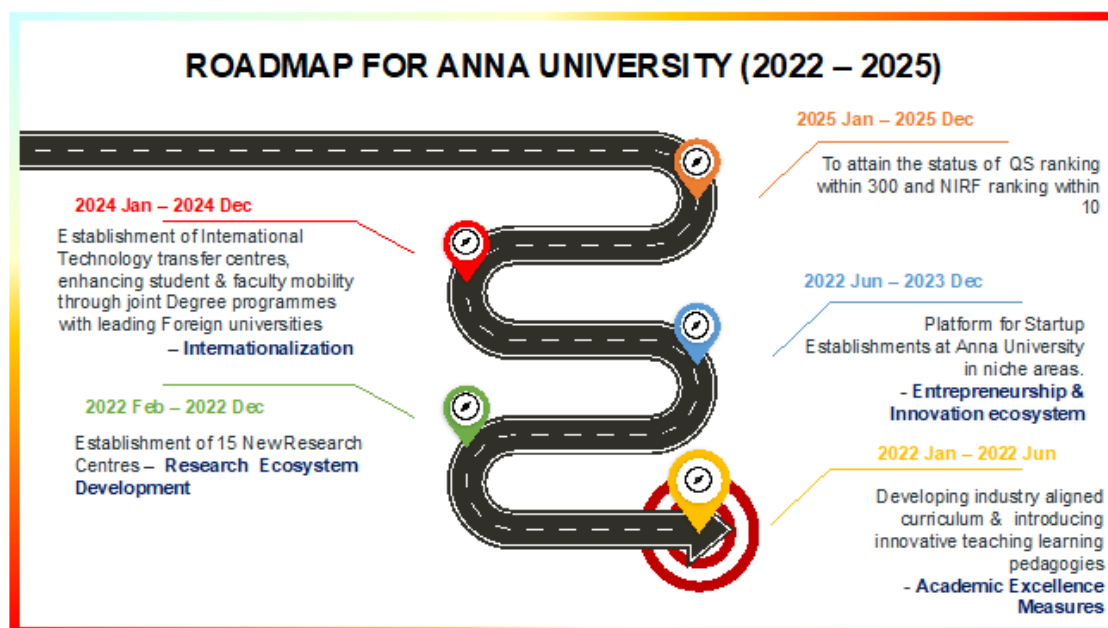
6.2.1 The institutional Strategic plan is effectively deployed.

Response:

The Strategic Goals of Anna University include the following:

- To be among the top five Universities by focusing on learners and providing them with an exceptional and congenial learning experience.
- To facilitate quality technical education through collaborative partnerships.
- To recruit and retain a high-quality workforce.
- To expand, sustain and excel in research (Research Excellence).
- National and Global Collaborations (To expand our national and global influence through appropriate interactions).
- Industry and Community Interactions (To improve and increase the scope of interaction with Industry and Community).
- Focus on Startup & Innovations
- State-of-the-art infrastructure to improve the academic, research, administrative, residential

infrastructure, and co-curricular facilities.



Strategic Plan (2022-25)

The effective implementation of the strategic plan is evident from the explicit policy and strategy for attracting international students in line with the strategic vision of the University to develop partnerships globally and to engage students and faculty members with international academic and research experiences. As a case study, the activities of the Centre for International Relations (CIR) are briefed below:

The CIR strives to develop closer international partnerships for global engagement, to promote, strengthen and expand the international links of the University, to encourage students and faculty members to get involved in mobility projects, and to facilitate exchange programmes for students and faculty members into our environment.

The CIR coordinates the following major activities:

- Bilateral research and academic programmes with overseas Institutions/Universities through Memoranda of Understanding (MoU)
- Exchange of Faculty/Students under the Erasmus programme
- Foreign Language Programmes
- Conduct International Joint Seminars and Conferences

The University has established academic and research collaborations with 54 foreign Universities/Institutions and 91 National Institutions and industries. At present, about 593 students are enrolled under Foreign Nationals (FN), Non-Resident Indians (NRI), and People of Indian Origin (PIO) and Children of Indian Workers in Gulf Countries (CIWGC) for the undergraduate (B.E./B.Tech.) and postgraduate degree programmes. The CIR also motivates researchers among young undergraduate and postgraduate students. The Centre provides full financial support towards participation in International conferences. It also supports International projects like UKIERI, which enhance educational links between India and the United Kingdom. This allows students and faculty to develop professional and leadership qualities.

Anna University is also actively involved in the MHRD programme titled “Global Initiative of Academic Networks (GIAN)” in Higher Education, aimed at tapping the talent pool of scientists and entrepreneurs internationally to augment the country’s existing academic resources, accelerate the pace of quality reform, and elevate India’s scientific and technological capacity on par with global excellence. Anna University faculty coordinated 11 GIAN programmes involving experts in the following fields:

- MIMO wireless
- Science and Technology in Carbon dioxide conversion
- Best Practices and Global Industry Standards Computer and Digital for senses
- Cancer metabolism
- Process Data Analytics
- RNA World
- Low Dimensional Structures and Devices
- Anti-Parasite Drug Discovery
- Medical imaging techniques
- Big data analytics
- Smart manufacturing and Aquifer characterization

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document
Strategic Plan and deployment documents on the website	View Document

6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.

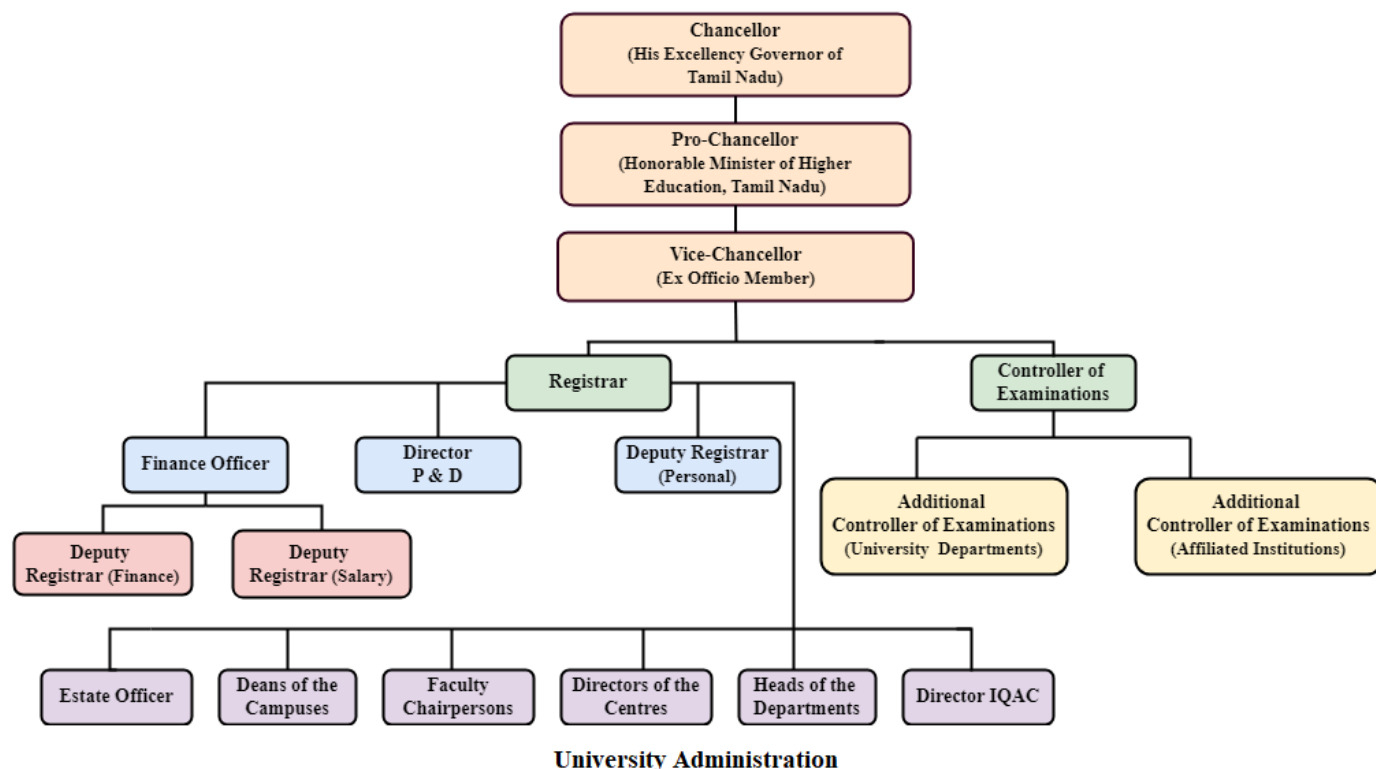
Response:

Organizational Bodies

Anna University enjoys full autonomy, with the Syndicate chaired by the Vice-Chancellor as the supreme body making policy decisions. Policy decisions by the Syndicate are implemented by an effective administrative setup involving the Registrar, Finance Officer, Controller of Examinations, Additional Registrar, Deputy Registrars, Professor (Estate Office), Deans of Campuses, Directors of Centres, Heads of the Departments, other statutory officers. Internal auditing, concurrent auditing, and legal sections ensure accountability, compliance with statutory norms, and transparency.

Functions of various bodies, conduct and service rules, procedures, recruitment, promotional policies, and grievance redressal mechanism are as per the Anna University Act (1978), Statutes, Ordinances, and Regulations. The powers and functions of various bodies are well enunciated in the Rules, which help the statutory bodies to monitor the entire functioning of the University effectively. The statutory committees make all the key decisions prescribed by the regulatory bodies. The Recruitment Cell coordinates the recruitment of faculty members and staff and the promotion of faculty members through Career

Advancement Schemes (CAS) as per the UGC/AICTE/TN State Government norms. The Centre for Admission carries out admission-related activities as per the norms.



The Academic Council, with representatives of key stakeholders, makes regulations consistent with The Anna University Chennai Act (1978) provisions, statutes, and ordinances. Anna University has 8 Faculty of Studies, viz., Civil Engineering, Mechanical Engineering, Electrical & Electronics Engineering, Information and Communication Engineering, Technology, Architecture & Planning, Management Sciences, and Science & Humanities.

Each is overseen by the respective Chairperson and comprises industry, student and prospective employers, alumni representatives in the Board of Studies, and the Academic Council.

Administrative Setup

The student support and academic activities are decentralized by having the 35 University departments managed by respective HoDs in the 4 different campuses, CEG, ACT, MIT, and SAP, managed by the Deans of the campuses. There are 60 Autonomous Centres with Directors having financial and functional autonomy and governed by the Executive Committee for which the Vice-Chancellor is the Chairman. In addition, the Department Consultative Committee, the Multiple Course Committee, the Overall Monitoring Committee, the Anti-Ragging Committee, and the Grievance Redressal Committee operate in the university.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document
Link to Organogram of the University webpage	View Document

6.2.3 Institution Implements e-governance covering following areas of operation

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
Details of implementation of e-governance in areas of operation, Administration etc (Data Template)	View Document
Any additional information	View Document
Link for additional information	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has a performance appraisal system, promotional avenues and effective welfare measures for teaching and non-teaching staff .

Response:

Performance appraisal and Promotional avenue

Performance and Potential Assessments in the prescribed format are mandatory every half year (30th June and 31st December) for the declaration of probation of teachers. It must be submitted yearly once for approved probationers. The assessment is based on their performance in academics, research, and other contributions, as well as conducted during the reporting period. All faculty fill out the prescribed proforma for self-appraisal, and the HoDs review the same. It also includes a 360-degree feedback mechanism as per the 7th Central Pay Commission (CPC).

The Unit Officer concerned provides the details of the Confidential Report at the time of declaration of probation and at the time of promotion of the non-teaching staff members.

Promotional avenues, as per the norms of the Regulatory authorities and the State Government, are available to the Teaching and Non-Teaching staff. The recruitment cell ensures the timely conduct of

Career Advancement Schemes (CAS) to promote faculty.

Welfare Measures

Anna University provides several Welfare measures for teaching and non-teaching staff, as summarized below:

- **Staff Quarters:** Anna University provides accommodation facilities for its staff members on a rental basis based on their needs and necessity as per the Tamil Nadu Government norms.
- **Health Center:** The Health Centre facilities with outpatient treatment, free of cost, is available 24/7 for all employees and students at the University.
- **Group Health Insurance Scheme:** Teaching and non-teaching staff members and pensioners are covered under the Group Health Insurance Scheme as per the institution's norms.
- **Loans:** Advance loans like House Building advance, Motor-cycle advance, Marriage advance, Cycle advance, Education Loan advance, Festival advance, and Handloom advance are rendered to support the employees of Anna University financially.
- **Recreation Facilities:** Sports/Swimming Pool/Gymnasium of Anna University facilitates its staff members to utilize the sports facilities to stay fit physically and mentally healthy and improve their self-skills. Sports and cultural fests are being organized for the employees to boost their cultural skills and showcase their innate talents.
- **Faculty Alumni Club:** Faculty members and student interaction are carried out through the Alumni Club.
- **Awards:** CSRC motivates the faculty by presenting them with the Distinguished Researcher, Active Consultant, Innovation, and Technology transfer awards every year.
- **Paid Vacation:** A total of 45 days in summer and 15 days in winter is given to the faculty and staff of the University. Taking time off from work keeps them healthy and stress-free. The faculty and staff are eligible for LTC and surrender leave salary as per the State government norms.
- **Centre for Empowerment of Women:** The centre was established to improve the quality of life of women socially, culturally, and professionally to ensure gender equity.
- **Prevention of Sexual Harassment (POSH):** Anna University has proactively established a cell for the POSH to create and maintain an environment free of sexual violence, harassment, exploitation, and intimidation for its female employees and students.
- **Day Care Centre:** A Day Care Centre functions at the Main and MIT Campuses, catering to the daycare needs of the children of the employees - teaching and non-teaching.
- **Anna Gem Science Park School:** Affiliated to the State Board, is based on the PPP model involving University and Industry. A 50% fee concession is provided for children of staff.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.

Response: 26.04

6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
219	144	290	213	222

File Description	Document
Details of teachers provided with financial support to attend conferences, workshops etc. during the last five years (Data Template)	View Document
Link for Additional Information	View Document

Other Upload Files	
1	View Document

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

Response: 115

6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
68	71	108	182	146

File Description	Document
Reports of Academic Staff College or similar centers	View Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 22.38

6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
173	247	182	109	221

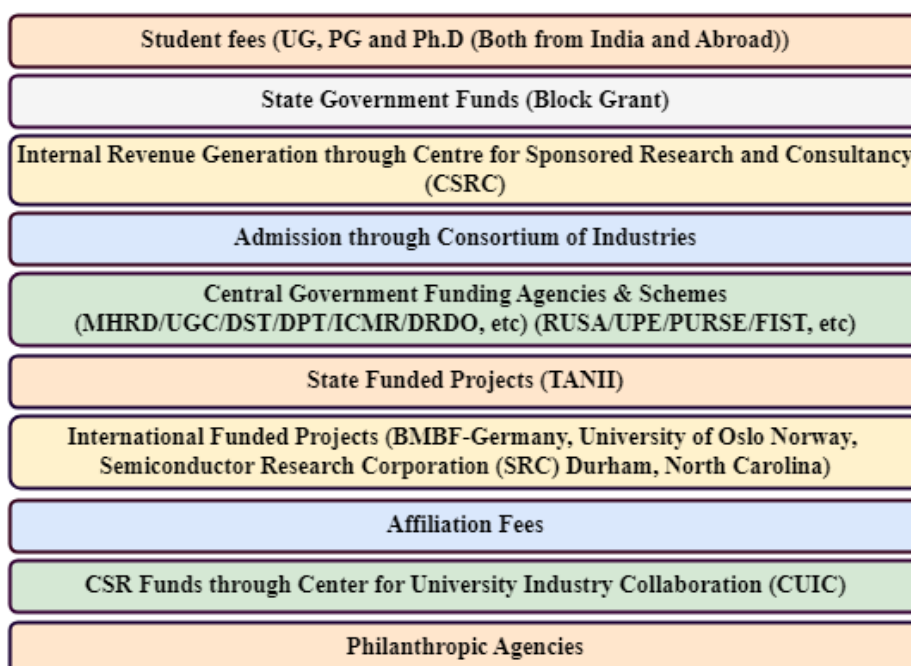
File Description	Document
Details of teachers attending professional development Programmes during the last five years (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Response:

The following are the various sources through which the funds are mobilized for the effective functioning of the University:



Financial Resource Mobilisation

Optimal Utilization of funds

These funds are utilized to expand and enhance campus facilities and buildings, pay employee salary/welfare measures, and improve the research infrastructure. The burden of financing the University activities is ever-rising due to Pay Revisions for employees, the rising cost of campus maintenance, and facility augmentation. Optimum utilization of funds ensures a thorough review of utilization of funds in budget committee meetings.

File Description	Document
Link for Additional Information	View Document

6.4.2 Funds / Grants received from government bodies during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).

Response: 7669.04

6.4.2.1 Total Funds / Grants received from government bodies for development and maintenance of infrastructure (not covered under Criteria III and V) year wise during the last five years (INR in Lakhs).

2021-22	2020-21	2019-20	2018-19	2017-18
3158.98	1971.42	927.20	534.76	1076.68

File Description	Document
Details of Funds / Grants received from government bodies during the last five years (Data Template)	View Document
Any additional information	View Document
Annual statements of accounts	View Document
Link for Additional Information	View Document

6.4.3 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

Response: 3438.38

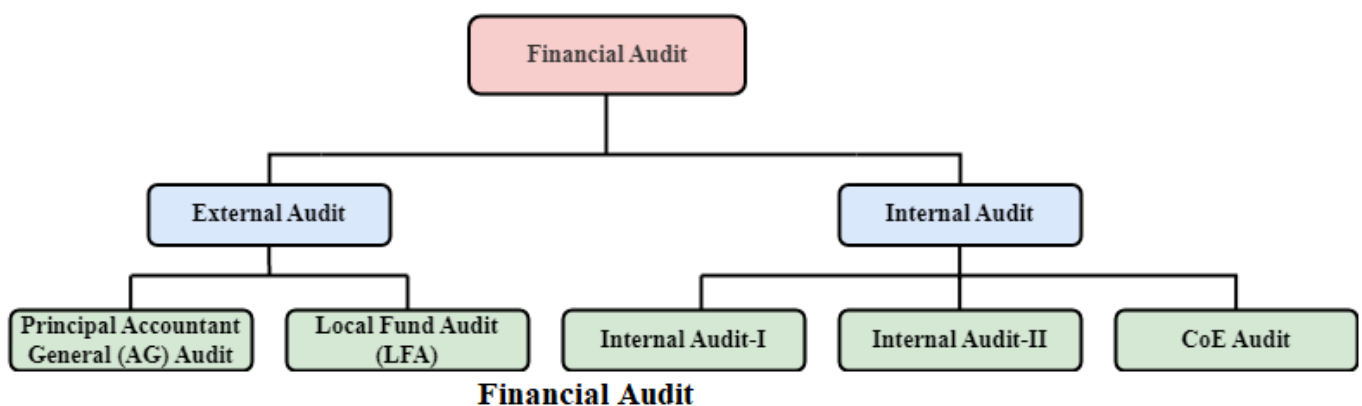
6.4.3.1 Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
745.5	282.5	546.4	972.9	891.08

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Annual statements of accounts	View Document
Link for Additional Information	View Document

6.4.4 Institution conducts internal and external financial audits regularly

Response:



Internal Audit-I, Internal Audit-II, and CoE Audit carry out Pre and Post audit of all the expenditures made by various units of the University. The Concurrent Audit and Local Fund Audit of the University conduct an 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 and Constituent Colleges every year and issues the Audit Report and Annual Accounts in respect of the University every year. Further, the Principal Accountant General of India inspects the Audit Report and Annual Accounts regarding the University issued by the Local Fund Audit section and raises objections based on the report. The Local Fund Audit objections are to be settled by regularly conducting audit joint sitting meetings with the Local Fund Audit section. The repayment concerning the AG audit objection is obtained from the respective authorities and sent to the Principal Accountant General for settlement of audit Paras.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals.

Response:

The Internal Quality Assurance Cell (IQAC) of Anna University scrupulously practices the following to institutionalize the quality assurance strategies and processes among all the University stakeholders:

Practice 1: Choice Based Credit System (CBCS), Outcome Based Education (OBE), and Evaluation Reforms

Anna University introduced Outcome-based education (OBE) and Choice Based Credit System (CBCS) (R-2015) in the academic year 2015-16 with clearly defined Programme Outcomes (POs) and Course Outcomes (COs). CO and PO correlations are mapped, and attainment is evaluated to facilitate sustenance and improvement of academic performance. Stakeholder feedback is duly considered during the revision of the curriculum and syllabus. The Computer Science and Engineering programme curricula and syllabus were improvised from the academic year 2018-2019 as part of the National initiative of the Rashtriya Uchcharat Shiksha Abhiyan (RUSA).

Innovative courses, integrating theory and practical components along with mini projects, with weightage and evaluation criteria for each course, were introduced in most of the programmes. Comprehension and communication skill-boosting courses have been included to enhance the employability of the graduates. Further academic flexibility for the students has been facilitated through options to add or drop courses and credits for industrial training/internship, industrial visit credits for online courses/self-study courses.

Student-centric learning practices such as seminars, group discussions, case studies, fieldwork, and project work are promoted. Using multi-mode and multi-media technologies such as smart boards, LCD projectors with PowerPoint slides, and video clips along with the traditional lecture methods provide the right blend of teaching aids to match delivery requirements.

The examination and evaluation reforms include revising the question paper pattern with three parts, including Part C with application-oriented higher-order questions, and mapping COs and learning levels against each question to facilitate attainment calculations. Bar Coding of answer books, Intranet-based online Academic Record Maintenance System (ARMS), and Secured Examination Management Systems (SEMS) are used to update students' attendance and marks and track their performance. "Clarification Day" is a unique practice of bringing transparency in evaluation, where the students get the opportunity to review the evaluation before the publication of results.

Practice 2: Internalization and Sustenance of Quality Culture

- **Quality Assurance activities**
 - Participation in National Level ranking: NIRF
 - Participation in Global Level ranking: QS and THE
- **Quality Enhancement Activities**
 - Coordination for participation in Rankings
 - Coordination for the successful submission of the IoE proposal
 - Facilitation for NBA accreditation
 - Coordinator Academic & Admin Audit (AAA)
- **Quality Sustenance Activities**
 - Monthly Internal Meetings by Director-IQAC
 - Internal Quality Assurance Council Meeting chaired by the Vice-Chancellor
 - Compilation and submission of the Annual Quality Assurance Report (AQAR) to NAAC
 - Conduct of Quality related Training programmes for teaching and non-teaching staff
 - Facilitation for securing funding from national agencies such as UGC and DST under various special schemes
- **Quality initiatives**
 - Expansion of IQAC Team and Office, Ready Reckoner, and Website for IQAC
 - Automation of Data Collection and Consolidation
 - Creation of Benchmarks

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.5.2 Institution has adopted the following for Quality assurance 1. Academic Administrative Audit (AAA) and follow up action taken 2.Confernces, Seminars, Workshops on quality conducted 3. Collaborative quality initiatives with other institution(s) 4.Orientation programme on quality issues for teachers and students 5. Participation in NIRF 6.Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA).

Response: A. Any 5 or more of the above

File Description	Document
Upload details of Quality assurance initiatives of the institution (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document
Paste web link of Annual reports of University	View Document

6.5.3 Incremental improvements made for the preceding five years with regard to quality (in case of first cycle), Post accreditation quality initiatives (second and subsequent cycles).

Response:

The following post-accreditation quality initiatives are carried out by the Internal Quality Assurance Cell and by other stakeholders of Anna University:

The Curricula and syllabi of all the programmes offered at the Anna University Departments were revised with Choice Based Credit System (CBCS) and outcome-based innovative courses integrating theory, practical, and mini projects. Students can register for additional courses or drop courses and are permitted to take one online course/self study course. e-PG Pathshala content for the PG Courses in Computer Sciences and Architecture is prepared with funding from the Government of India.

Student-centric learning is promoted by adapting participatory learning activities, and the Student Exchange programme for national and international students is enhanced through the Centre for International Relations. About 90% of the registered students at Anna University Departments are placed through the Centre for University-Industry Collaboration.

A web-based application the Secured Examination Management System (SEMS) was developed and used to efficiently manage examination activities of the University Departments, starting from the enrolment to the completion of the examination and issue of Grade Sheets.

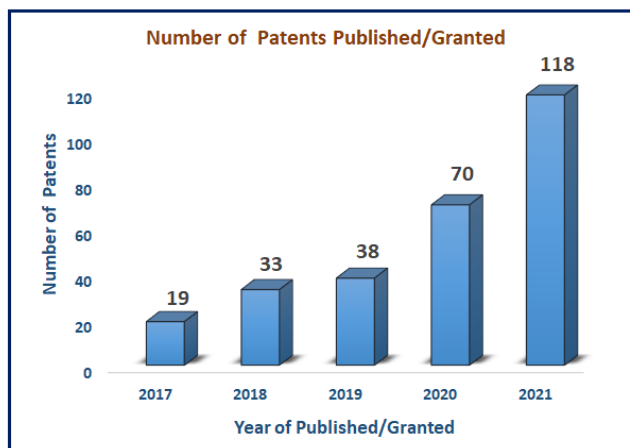
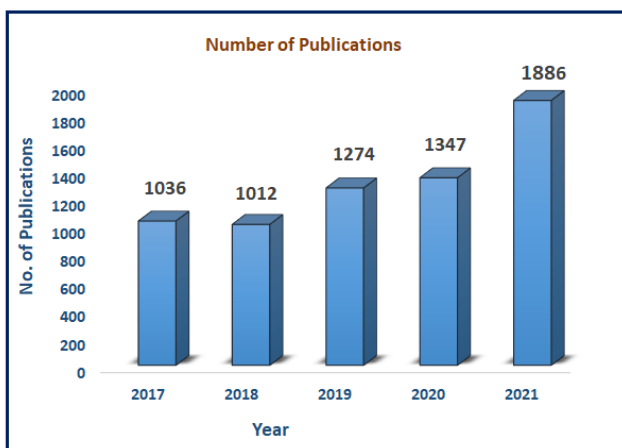
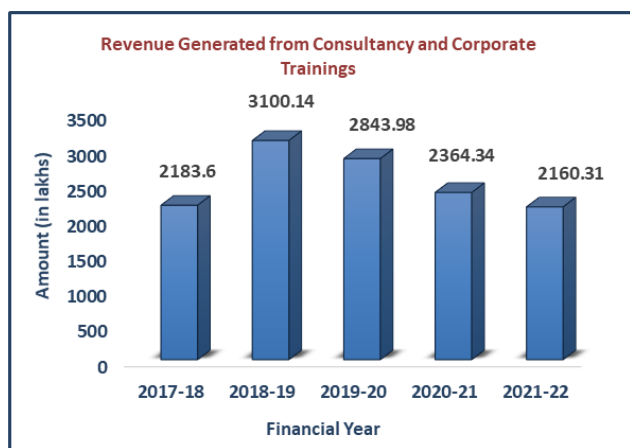
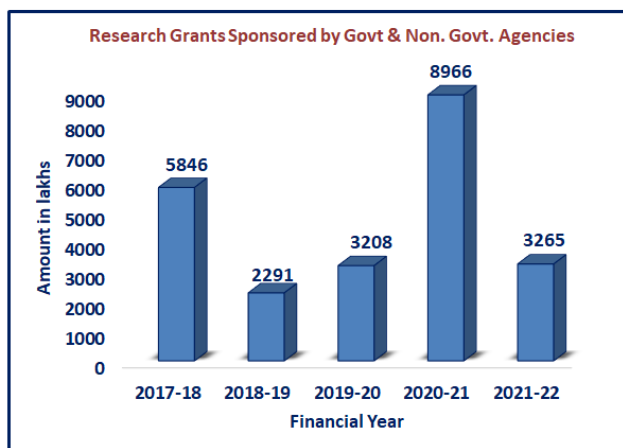
The Knowledge Data Centre provides complete online services catering to the students of the University Departments and the University Colleges of Engineering for the payment of tuition fees and a complete data storage and retrieval system for all the faculty members, staff, and students using AU-FIS and AU-ADAMS portals.

The University Grants Commission recognized Anna University as a "University with Potential for Excellence" (UPE) in the XII plan period to develop Research & Development activities in Biomedical Engineering and Applications. The National Hub for Healthcare Instrumentation Development (NHIID) was established with an initial funding of Rs.12.4 crores from DST to promote the development of indigenous products, calibration standards, platform technologies, and human resource development in healthcare. The Ministry of Electronics and Information Technology (MeitY) and Tamil Nadu e-Governance Agency initiated establishing iTamil Nadu Technology (iTNT) Hub in Anna University.

The Centre for Sponsored Research and Consultancy (CSRC) provides seed money to students and young faculty to conduct innovative projects. The CSRC prepares a comprehensive booklet containing the R&D facilities of all Departments/Research Centres and a list of funding agencies to enable the researchers to apply for funding. The CSRC facilitates the organization of GIAN programmes and the setup of the Atal Incubation Centre, and Technology Enabling Centre.

Faculty members are trained on the NAAC and NBA quality framework and accreditation criteria to strengthen the internalization of quality culture. Administrative staff are provided periodical training on office management practices and procedures. MHRD recommended Anna University for Institution of Eminence status.

The University was placed 2nd in the country for publications. The Anna University Library has been ranked 7th in e-resources usage in India and 1st in Tamil Nadu. The Centre for e-governance was established to strengthen the transparency in administration with alumni funding of Rs.1 crore. 15 new research centres were established in 2022 to address the urgent need to build research capacity in emerging areas. Anna University was ranked high in NIRF and included in the QS and THE Global Rankings.





2022
 Overall: 22
 University: 20
 Engineering: 17
 Research: 21

2022
 World: 801-1000
 Asia: 18
 Engineering &
 Technology: 401-500

2023
 World: 551-560
 Asia: 185
 India: 13
 Engineering &
 Technology: 289

International & National Ranking

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

Anna University practices an inclusive approach in all activities and has zero tolerance for discrimination against women. The University has 49% women faculty members and 42% girl students. The University takes several initiatives for the empowerment of women. In the last 5 years, 27 programmes, to name a few, Work-Life Balance, Women in Academics and Research – Dual Role, Gender Sensitization, have been conducted, and 6605 women benefited.

Centre for Empowerment of Women

An exclusive Centre for Empowerment of Women (CEW) was established in the year 2002 to improve the quality of life of women socially, culturally, and professionally to ensure gender equity. Accordingly, the CEW facilitates the following activities,

- Conducting Seminars/Workshops related to women's empowerment
- Counseling the women faculty and students for,
 - Academic Excellence
 - Getting along with Peers
 - Working with Teachers & Parents
 - Maintaining work-life balance
 - Psychosocial problems
 - Career and Vocational training

Prevention of Sexual Harassment

To uphold the constitutional mandate Anna University has proactively established a Prevention of Sexual Harassment (POSH) cell with an Internal Complaints Committee to address the grievances. The role of the POSH cell includes preventing discrimination, sexual harassment, and gender violence and taking proactive measures for gender sensitization. It also recommends punitive action against the guilty.

Day Care Centre

The Day Care Centre is functioning since 2002, with a support grant of Rs. 2.00 lakhs from the University Grants Commission to cater to the needs of the women faculty and research students, which enables a stress-free working environment. Children aged 1-12 years are cared for in these day-care centres. A new premise was established for the Day Care Centre at Main Campus with a funding of Rs. 25 lakhs. The extension was initiated at the MIT campus in 2009 with support from the UGC.

Common Room for Women

Common rooms are equipped with resting facilities, restrooms, drinking water, first aid, etc., for the benefit

of women faculty and girl students.

Gym & Swimming Pool facilities

A Gym facility is provided in the health centre with separate timings for girl students and women faculty. A swimming pool on the campus provides separate slots for girls and women faculty on campus for swimming.

Health Centre

Two Medical Officers and specialists in the field of Gynecology, Ophthalmology, Dermatology, Diabetes, Dentistry, Pediatrics, E.N.T, and Orthopedics visit Main and MIT campuses to address the health issues of faculty and students.

Safety & Security

The campus provides a safe and secure environment with 148 CCTV cameras, automatic number-plate recognition, fire extinguishers, fire alarms, and first aid boxes. The campuses are well-lit with powerful lights to avoid any untoward incident. Security personnel guards the campus entrance gates. The hostel environment is safe and well-protected, with all the required amenities. Anna University ensures a gender-just environment free of exploitation, intimidation, harassment, and violence.

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	View Document
Annual gender sensitization action plan	View Document

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

- 1.Solar energy**
- 2.Biogas plant**
- 3.Wheeling to the Grid**
- 4.Sensor-based energy conservation**
- 5.Use of LED bulbs/ power efficient equipment**

Response: A. 4 or All of the above

File Description	Document
Geotagged Photographs	View Document

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- **Solid waste management**
- **Liquid waste management**
- **Biomedical waste management**
- **E-waste management**
- **Waste recycling system**
- **Hazardous chemicals and radioactive waste management**

Response:

Degradable Waste Management

Food Waste Management

Food Waste Management in the campus is carried out by dividing the campus into academic and hostel zones. The hostel zone generates food, vegetable, paper, and cloth wastes, whereas the academic zone generates food and paper waste. In addition, the dry leaves constitute a major portion of solid waste. The organic wet waste from hostel kitchens, mess, and canteen is sent to the biogas plant. The gas generated is used for cooking purposes at the hostel kitchens, and the slurry generated is used as fertilizer in the organic farm at the campuses.

Various waste collection bins (with source segregation facility) are kept inside every classroom, lawn and pathway, and cafeteria. The dry wastes collected in these bins are transferred to trolley-type bins and disposed of through an agency approved by the Corporation of Chennai. Plastic usage has been banned in campus, to reduce the generation of plastic waste.

Liquid Waste Management

An average of 9 lakh litres/day and 4 lakh litres/day of wastewater is generated from various parts of the Main and MIT campus to the Sewage Treatment and Recycling plant, which can treat 9 lakh litres of water per day. The treated wastewater irrigates lawns and gardens through Sprinkler Irrigation Systems. The wastewater from the kitchen is used for the in-house vegetable garden. It is also proposed to modernize the existing Sewage Treatment Recycling Plant to improve the treated water quality standards for flushing toilets in the new buildings.

Non-degradable Waste Management

Biomedical Waste Management

The medical waste generated at the health centre is collected in different color-coded bins, red - all infectious plastics waste, white – objects such as syringes, yellow - highly infectious waste, and blue - infectious glass sharps. The biological wastes from the Biophotonics laboratory are collected in bar-coded waste disposal covers. The University's Health Centre hands over all the collected wastes to the G.J.Multiclave (India) Pvt. Ltd, Adyar, Chennai, for proper disposal as per the Biomedical Waste Management Rules of 2016.

E-Waste Management

E-Waste collected in the campuses is auctioned for disposal through authorized agencies by the respective departments. The Central facilities' e-waste materials are auctioned by the Estate Office/respective sections. There is also a procedure in place for condemned computers, printers, etc., to be disposed under buy-back schemes.

Hazardous chemicals and radioactive waste management

Hazardous chemicals used in Chemical Analysis Laboratories are neutralized and disposed of through the Sewerage system, which gets diluted and treated in the Sewage Treatment Plant.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geotagged photographs of the facilities	View Document

7.1.4 Water conservation facilities available in the Institution:

1. Rain water harvesting
2. Borewell /Open well recharge
3. Construction of tanks and bunds
4. Waste water recycling
5. Maintenance of water bodies and distribution system in the campus

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document

7.1.5 Green campus initiatives include:

1. Restricted entry of automobiles
2. Use of Bicycles/ Battery powered vehicles
3. Pedestrian Friendly pathways
4. Ban on use of Plastic
5. Landscaping with trees and plants

Response: A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document

7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

- 1.Green audit**
- 2.Energy audit**
- 3.Environment audit**
- 4.Clean and green campus recognitions / awards**
- 5.Beyond the campus environmental promotion activities**

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

- 1.Built environment with ramps/lifts for easy access to classrooms.**
- 2.Divyangjan friendly washrooms**
- 3.Signage including tactile path, lights, display boards and signposts**
- 4.Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment**
- 5.Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Response:

Provision of an Inclusive Environment

Anna University is committed to provide extensive opportunities in education, research, and innovation for applicants from the disadvantaged and/or currently under-represented groups to improve their quality of life. National and State Government Policies for inclusivity are strictly adhered in Anna University concerning student admission and faculty/staff Selection. The University does not tolerate discrimination based on religion, caste, color, or language. Adequate avenues are made available to students of all sections of society in various activities of the University.

Promoting Harmony and Tolerance

To foster unity in diversity, various initiatives in the form of celebrating the days of Eminent Personalities, National Festivals, Social Awareness Days, World Environment Day, National Science Day, Yoga Day, and White Cane Day are observed each year with enthusiastic participation of the students and staff in creating an inclusive environment.

- The subject “Constitution of India and professional ethics” is made mandatory for all students across all disciplines.
- 40% of the NSS and YRC students actively organize eye screening camps, blood donation camps, helping children in orphanages, adopting villages, and similar activities. The Rotaract club organizes “Sangarsh, a musical event” every year to create awareness amongst the public on medical conditions, such as Lysosomal Storage disorder, Pal Disorder, muscular dystrophy, and differently-abled children.
- Variety programmes for children near the campuses.
- Creating awareness of Energy Conservation through National Campaigns.
- Triggering students' minds, helping them to master their science concepts through Vizhithiru Project.
- Improving educational planning and administration by conducting state-level conferences for the district and block education officers.

Cultural Harmony

Anna University believes in the equality of all cultures and traditions, as is evident from the fact that students from different castes, religions, and regions study without discrimination. Tolerance and harmony towards cultural, regional, linguistic, communal socio-economic, and other diversities exist. National festivals and birth and death anniversaries of Indian leaders are celebrated with great enthusiasm. Various student clubs promote co-curricular and extracurricular activities. The clubs encourage students' participation in exhibiting their creative abilities and latent talents. The wisdom generated in the conduct of various activities helps students hone their leadership qualities, entrepreneurial skills, and time and people management. Annual cultural fest with traditional dances like Bharatham, Kummi, Kolatam, Oyil, Karagam, Silambam, and intercollege cultural festivals are conducted yearly. A new column, Cinema Kottai, has been launched on social media to post reviews on music, short films, web series, and books.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

Sensitization to Constitutional Obligations

Universal Human Values (UHV)

A UHV cell has been created to conduct training and workshops for faculty, staff, and students. As per the AICTE guidelines, the Student Induction Programme is conducted for first-year UG students. 50% of this 2-week programme consists of lectures, videos, and practical sessions on "Universal Human Values". Approximately 70% of the faculty have been trained in UHV through a Faculty Development Programme (FDP) designed and sponsored by the AICTE.

Constitutional Obligations in Curriculum

Anna University has sensitized its students on their constitutional obligations with courses like Constitution of India (1643 students), Value Education (2029 students), Pedagogy Studies (617 students), Stress management by Yoga (390 students), and Personality Development through life enlightenment skills (272 students). In addition, 3822 students have benefited from courses such as Professional Ethics and Human Values, Values and Ethics, Ethics and Holistic Life in the third, fifth, and sixth semesters, facilitating an enhanced understanding of life, society, and career. In the last five years, 14,968 students studied one mandatory course on Environmental Science and Engineering (R2015) and Environmental Sciences (R2019) for insights into protecting nature and the environment.

Constitutional Obligations in Public Service

In addition, as a part of the curriculum, the students must enroll in any personality and character development programmes, such as the NCC, NSS, YRC, and NSO, undergo training for about 80 hours and attend a seven-day summer camp.

Constitution day Celebrations

Anna University celebrates Constitutional Day on 26th November. It takes Pledge against Untouchability on 30th January. In addition, the University celebrates Independence Day, Republic Day, National Voters Day, and Birth anniversaries of the leaders, and pays tribute to all freedom fighters of the nation, thereby reminding students and faculty of their constitutional obligation, besides values, rights, duties, and responsibilities. The University establishes policies that reflect core values. The code of conduct is followed by all the students and staff. Through NSS camps, students and staff are more connected with rural areas disseminating awareness on the importance of child education, cleanliness, computer training,

etc.

Voter ID Registration Camp

Anna University organizes voter id registration camps creating awareness among the students about voting and their role in the election process. The teaching and non-teaching staff contributed in a big way to the Tamil Nadu Legislative Assembly Elections held in 2021.

Social Responsibility of Citizens

Clean Environment Rally

Student volunteers create awareness about a clean environment through rallies with placards on the need for a clean environment, avoiding plastic, and planting more trees. The students also take up lake cleaning at nearby localities. As part of the Geneva Convention Day celebration, students won awards in the essay writing competition.

Blood Donation Camp

The University organizes blood donation camps yearly to create awareness among students and staff on the importance of donating blood to save a life.

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The Code of Conduct is displayed on the website**
- 2. There is a committee to monitor adherence to the Code of Conduct**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

Response: A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document
Code of ethics policy document	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

Anna University organizes national festivals and birth/death anniversaries of great Indian personalities every year with enthusiasm. Thoughts of the Indian leaders are sowed into the young minds of our students through different types of programmes.

National Festivals/Commemorative Days

- **Independence Day:** Independence Day is celebrated every year on 15th August, with the flag hoisted by the Vice-Chancellor and a march-past by the NCC cadets. The students exhibit cultural activities related to the independence movement. Winners of State and National level competitions are honored in the function.
- **Republic Day:** Republic Day is celebrated every year on 26th January to commemorate the adoption of the Indian constitution. On this day, various formal events are conducted, including flag-hoisting by the Vice-Chancellor and march-past by the NCC cadets. The Vice-Chancellor addresses the gathering on the spirit of nationalism and relevance of Republic Day in the current times, highlighting the University's and its alumni's contributions in the current year. This is followed by cultural programmes organized by the students, including patriotic songs, dance, skits, etc., focusing on national integration and constitutional values, which inculcate patriotism and awareness. The best-performing participants from NCC, NSO, NSS, and YRC are honored in the function.
- **Teacher's Day:** Teacher's Day is celebrated in the departments every year on the 5th of September. Teachers are also awarded mementos as a token of gratitude and respect.
- **National Safety Day:** The National Safety Day programme spreads awareness among youngsters/students about safety protocols, including on the road, at the workplace, about health, and the environment. Programmes are organized to educate the measures and regulations enacted to ensure a safe environment.
- **National Voters Day:** Pledge is taken on the 25th of January every year to encourage young voters to participate in the political process. In addition, National Unity Day, National Science Day, National Yoga Day, Technology Day, and Thiruvalluvar day are celebrated at the University.

International Festivals/Commemorative Days

- **International Yoga Day:** International Day of Yoga is celebrated on 21st June with all the students and staff, raising awareness of the benefits of practicing yoga. As many people were stressed due to the pandemic, a two-day online yoga "Mind to Soul" event was conducted by the NCC Navy wing of CEG, with 150 participants.
- **International Women's Day:** Every year, Anna University celebrates International Women's Day in the first week of March by conducting various activities and competitions.
- In addition, World Forest Day, World Tourism Day, International Science Day, World Environment Day, World Cane Day, and World Tourism Day are celebrated.

File Description	Document
Geotagged photographs of some of the events	View Document

7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Response:

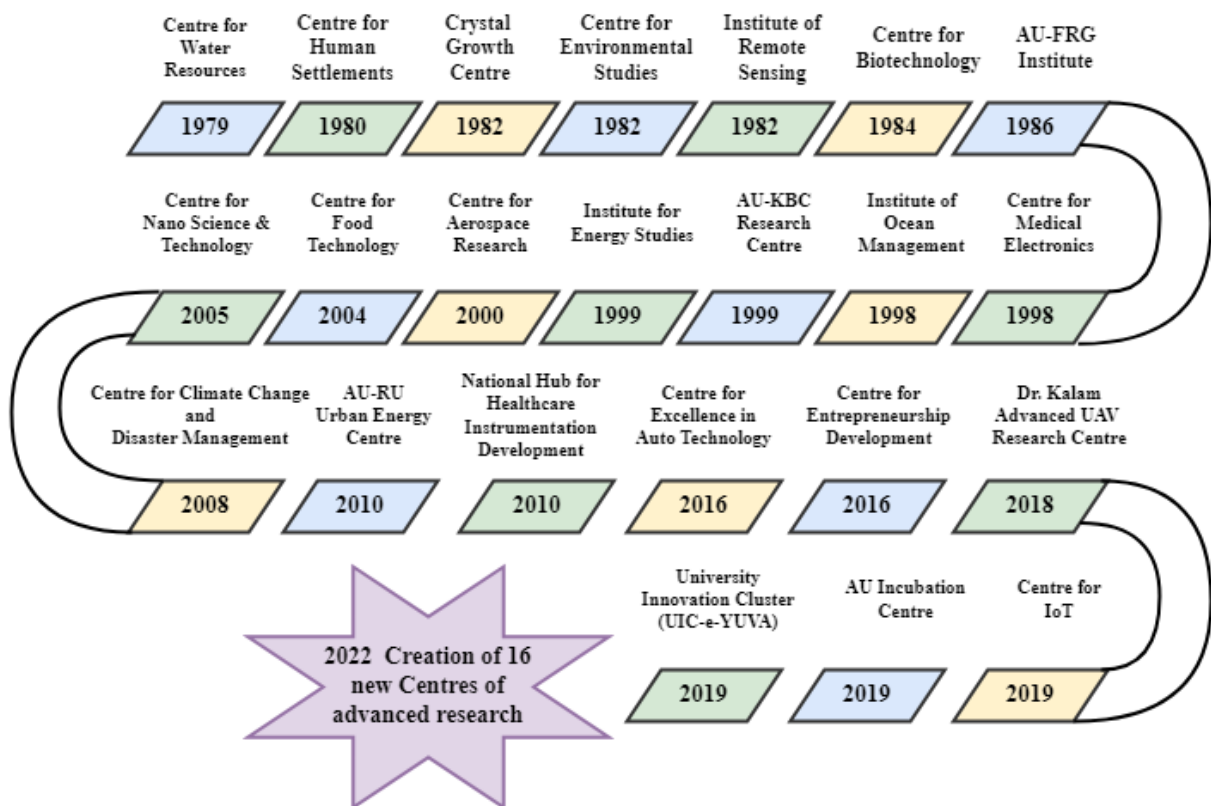
Best Practice 1

TITLE OF THE PRACTICE

Providing Autonomy to Research Centres to promote high-quality research, innovation, consultancy, and training in thrust areas.

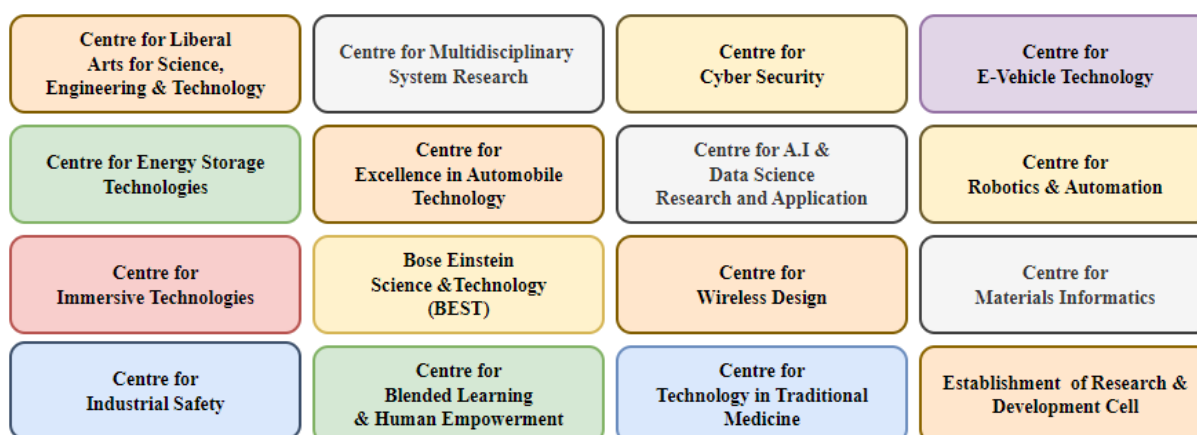
OBJECTIVES OF THE PRACTICE

- To Empower small research groups in the University to identify challenges faced by society, industry, and the government, to provide solutions to the respective fields, and be a self-sustaining group with well-defined autonomy.
- To provide a platform for the academia to collaborate with the industry, R&D organizations, and public sectors in theoretical and experimental research in line with the State and Central Government initiatives like Aatmanirbhar Bharat Abhiyaan, Start-up India, Digital India, Make in India, Naan Mudhalvan and Nalaya Thiran.
- To promote Public-Private-Partnership (PPP) in research, testing, and training.



Autonomous Research Centres established till 2019

Following the tradition of giving more space for research, the University started 16 more centres in newly emerging areas of technology. The newly started centres during the year 2022 are shown below:



Newly established Autonomous Research Centres

THE CONTEXT

In a globally dynamic scenario prevailing in technical education, meeting societal and industrial needs and demands at the earliest is prudent. The practice of giving autonomy to the different research groups of the faculty in the University keeps the University marching forward at the required pace.

THE PRACTICE

Two of our visionary Vice Chancellors, Prof. M. Ananda Krishnan and Prof. V.C. Kulandaiswamy, laid the foundation for this best practice as early as the 1980s. They realized the value of autonomy in research that would lead to high scientific productivity and established Research Centres within the University that would function with more autonomy. The research centres established till 2019 is shown below.

The major aspects and strengths of these centres are as follows:

- Authority and responsibility are decentralized with financial and administrative autonomy.
- It empowers many research groups to foster research in focused thrust areas with the direction of a senior professor specialized in the area.
- The activities are governed by an Executive Committee helmed by Vice Chancellor, Registrar, and other experts from reputed Research Labs, IITs, and Industry and Government services.
- The Centres receive grants from funding agencies, generate revenue through consultancy, testing, and training services, and function independently. Auditors appointed by the State Government audit the utilization of grants.
- The autonomy of research centres has nurtured much research work, leading to patenting and commercialization of technology.
- The Centres can enter MoAs/MoUs with other institutes and industries in India and abroad to conduct collaborative research.
- A few Centres offer academic programmes (UG/PG/Ph.D) in association with departments.

These autonomous research centres at Anna University facilitate research progress in emerging areas using cutting-edge technology and embark on socially conscious research. A few are highlighted below:

Research Centres in Cutting-Edge Technology

- The **AU-FRG Institute for CAD/CAM**, established in 1996 with assistance from the Federal

Republic of Germany (FRG), aims at promoting the use of CAD/CAM technologies for research and training in the Indian Industrial Sector.

- **Centre for Aerospace Research (CASR)**, established in 2001, has spearheaded drone technology for societal transformation, and it is India's 1st Remote pilot Training Organisation (RPTO) under UAS Rules 2021. The Drone Corporation, established in 2022 with the Government of Tamil Nadu (TNUAVC), is a first of its kind in India.
- Today established the drone corporation with the Government of Tamil Nadu of its first kind in India.
- **Centre for Nano Science and Technology (CNAST)**, established in 2005, is actively pursuing research in various aspects of Nanoscience and Technology, including Chemical, Mechanical, and Bio Synthesis of nanomaterials like semiconductor nanostructures, nanocrystalline thin films, carbon nanotubes, and nanofibers, metallic nano adhesives, polymer-based nanocomposites, nanostructured ferroic materials, etc.
- **Crystal Growth Centre**, established in 1982, is a national facility that promotes research interests in Crystal Growth and characterization field. The centre has implemented several major national research projects in emerging areas (Nano Structures, New Materials) supported by National funding agencies such as DST, DAE, DRDO, UGC, ISRO, MNES, DOE, BRNS, IUAC, CSIR, Tamil Nadu Government, etc.
- **Centre for Energy Storage Technologies**, established in 2022, aims to bring together campus-wide expertise in energy storage, foster collaboration, and be a focal point for research bridging the existing gap among the research fraternity. This centre was established based on National Energy Storage Mission and National Green Hydrogen Mission.
- **Centre for Excellence in Automotive Technology**, established in 2022, has embarked on establishing a world-class research and development facility to promote research in automotive areas, including GDI Engine, Emission, and its control, Fuel cells, and Electric and Autonomous vehicles.
- **Centre for Internet of Things**, established in 2022, focuses on research and development activities and training students for the industry, providing IoT solutions for real-time problems.
- **Centre for e-Vehicle Technologies**, established in 2022, focuses on the design and development of products, provides viable solutions in the Electric Vehicle technology domain, and establishes a state-of-the-art lab facility for testing and certification for e-vehicle products as per standards.
- **Centre for Cyber Security**, established in 2022, is an initiative to promote cyber security knowledge and awareness among stakeholders that will connect academia, industries, and the government to cater to the needs of society related to cyber security. This centre aims to work with the Data security council of India, supporting the development of IoT standards for smart cities development.

Socially Conscious Research

- **NHHID - National Hub for Healthcare Instrumentation Development**, established in 2011, provides a platform for the collaboration of scientists, engineers, technologists, industrialists, businessmen, and clinicians to promote and accelerate the development of healthcare instrumentation indigenously.
- **AU-KBC Research Centre for Emerging Technologies**, established in 1999 under the PPP model, focuses on computational linguistics and life sciences.
- **Centre for Biotechnology**, established in 1984, imparts quality technical education and research in advanced and emerging areas of industrial, medical, pharmaceutical, and food applications of Biotechnology.

- **Centre for Climate Change and Disaster Management**, established in 2019, is the first and lone Centre in Tamil Nadu functioning exclusively to address climate issues through various research activities.
- **Centre for Medical Electronics**, established in 1998, develops affordable and cost-effective Biomedical devices and tools that enhance healthcare. The Centre has carried out many funded projects sponsored by DST, DRDO, and SERB for a tune of Rs. 7 crores. The UGC has awarded the coveted status of “University with Potential for Excellence in Biomedical Engineering and Instrumentation” to Anna University in 2017 and sanctioned Rs. 23 crores to develop an ‘Antibiogram device’ and to establish a Limited Manufacturing facility.
- **Centre for Environmental Studies**, established in 1982, has been conducting sponsored research studies for the Ministry of Environment, Forest and Climate Change, Ministry of Urban Development, Tamil Nadu Water Supply and Drainage Board, Central Pollution Control Board, and Council for Scientific and Industrial Research.
- **Institute for Energy Studies**, established in 1984, has state-of-the-art facilities in energy engineering. It offers advanced learning and facilitates hands-on experience in energy engineering.
- **Centre for Food Technology**, established in 2004, designs and develops food ingredients and products in collaboration with industry to meet consumer’s nutritional needs and quality demands, focusing on functional/specialty foods and nutraceuticals.
- **Centre of Liberal Arts for Science Engineering and Technology**, established in 2022, is mandated to focus on the intersection of technology and arts in a world of significant uncertainties to help budding engineers use their creativity to find lasting solutions for societal needs.

The newly formed Entrepreneurship Development & Innovation Council (EDIC) coordinated with various centres for research and development, paving the way for interdisciplinary research activities. Thus, this best practice has been successful in the present-day context with sufficient autonomy and checks and balances.

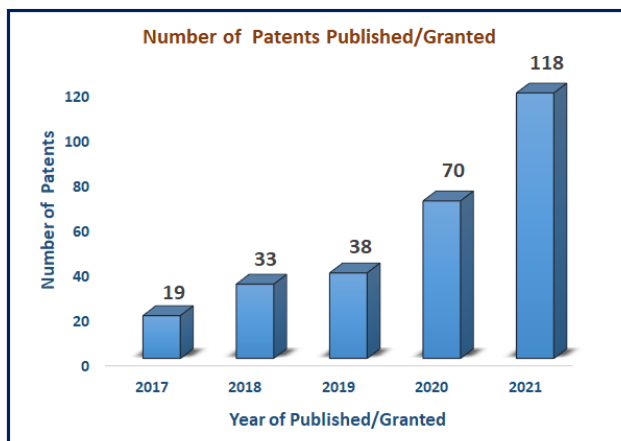
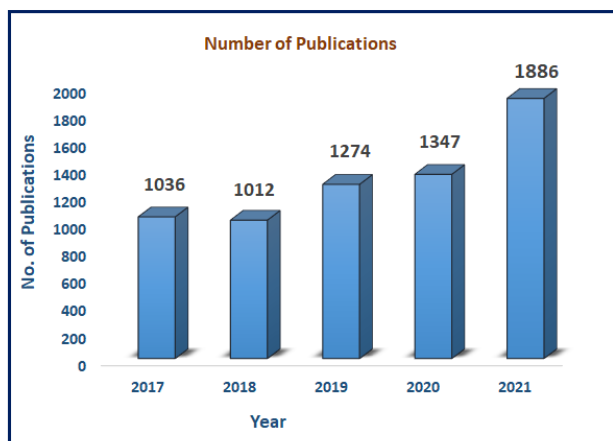
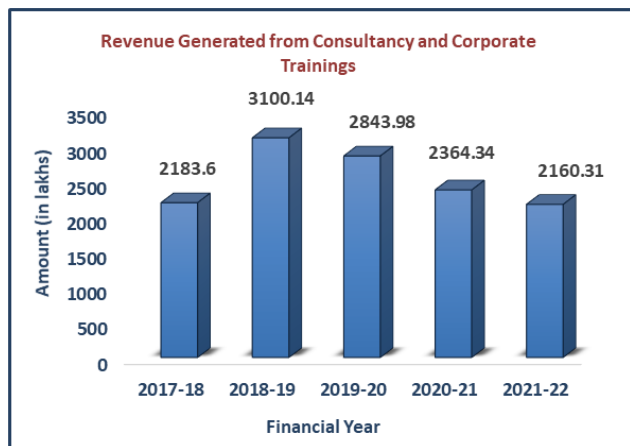
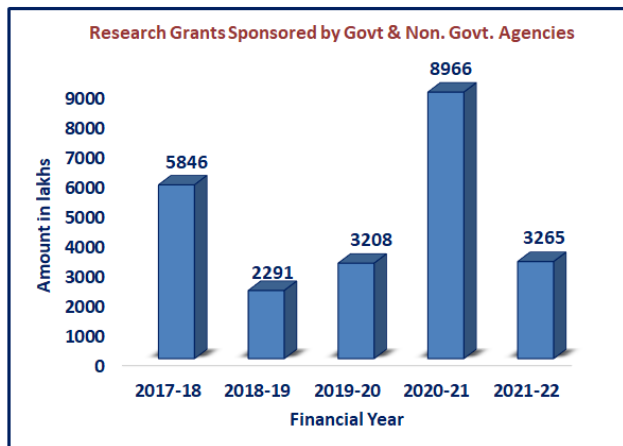
EVIDENCE OF SUCCESS

Autonomous work nature & Sustainability in all actions are two of the major core values of Anna University. As a measure of translating these core values into concrete action plans, the institution has taken several measures and witnessed remarkable achievements.

- **Thrust areas:** Some of the core areas of the University are Health Care Instrumentation, Drones, Energy, Water and Environment.
- **Academic Research Outcomes (ARO):** The university has strong academic research outcomes and is reflected with 32,860 Publications, 4,25,284 Citation Index, 183 h-index, 15,289 Ph.D. produced, and 300 Patents.
- Ranked 8th in SDG7 for Research output in 2021-22 by Times Higher Education
- Globally, Ranked 7th in SDG 6 - Clean Water and Sanitation in 2020.
- Recognized by UGC as a “University with Potential for Excellence (UPE) in Biomedical Engineering & Instrumentation”.
- Appointed as Technical advisor for Biomedical Technological Park by State Government
- **Sponsored Projects:** During the past five years, Anna University received a research grant of about 235.8 crores from sponsored projects.
- **Funding Agencies:** Some of the major funding agencies are the Ministry of Human Resource and Development of India (MHRD), All India Council for Technical Education (AICTE), University Grant Commission (UGC), Defense Research and Development Organization (DRDO),

Biotechnology Industrial Research Assistance Council (BIRAC), Government of Tamil Nadu and Larson & Toubro (L&T).

- **Consultancy, Testing, and Training:** The University has excelled in Technical, Testing, Training, and Consultancy services, which is witnessed with a revenue of about 126.5 crores during the past five years.



PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED

Retrieval of information needs a common database and a data centre. Maintaining a common database needs a solid and robust Work Flow Management System (WFMS) and periodic functional revision of systems to optimize processes and budgetary regulations. Presently the WFMS is being implemented through Centre for e-governance with financial and technical support from the Alumni.

Best Practice – 2

TITLE OF THE PRACTICE

Green Initiatives at the University

OBJECTIVES

- To practice the implementation of energy efficiency measures and renewable energy utilization.
- To rejuvenate groundwater levels through rainwater harvesting and water storage.
- To adopt best practices for the disposal of solid wastes generated.
- To achieve near-zero discharge of liquid waste.
- To promote biodiversity with best ecosystem practices.
- To promote a pollution-free campus.

THE CONTEXT

Anna University's green campus adopts energy efficiency, conserves resources and renewable energy utilization, and enhances environmental quality through best practices for sustainability, healthy living, and learning environments.

THE PRACTICE

Anna University strives to be a model campus with the following green initiatives:

- Power generation by solar energy and energy conservation
- Rainwater harvesting
- Solid waste management
- Wastewater treatment and reuse
- Vegetation and Tree planting
- Reduction in the usage of vehicles inside campuses

EVIDENCE OF SUCCESS

Power generation by solar energy and energy conservation

- Solar power of nearly 105 kW is generated in Anna University Main campus, the CUIC, Centre for Excellence building, AU-FRG-ICC, and Thamarai Hostels, and in MIT campus, the Lecture Hall Complex and Marutham Hostels.
- A proposal for generating a 500kW solar panel in the main campus has been approved in the Syndicate, and tender work is underway.



Power generation through Solar PV Panels



Biogas generated using Hostel food waste

Energy conservation

- A Campuswide network load monitoring system (45 net meters installed in various buildings) is established. This setup is useful for monitoring continuous energy consumption and, intern to initiate energy conservation measures.
- The street lamps in the four campuses have been converted to LED lamps. Nearly 75% of the street lamps on the campuses are LED lamps, and 25% of internal lighting on the campuses is through LED bulbs.
- All the air conditioners installed in the Departments follow the energy conservation policy (5-Star Quality Rating System).
- Sensor-based on-and-off switching of the streetlamps on the campus has been implemented.

Rain Water Harvesting (RWH)

- The University adopts a zero-drain policy. Rainwater from the building's rooftops and surface runoff is stored for groundwater recharge. The total catchment area during the last 5 years is 51727 sq.m.
- A pond has been constructed in the Main campus and MIT campus for storing surface run-off water generated in both campuses. The approximate area of the recharge pond is around 2000 sq.m.

Solid Waste Management

- A biogas plant with a capacity of 1000 kg/day that utilizes the food waste from all the mess at the CEG campus was installed in 2018. This plant has an average generation capacity of 80 cubic meter per day, equivalent to 35 kg of LPG gas, saving approximately Rs. 80,000 per month. Besides the economic benefits, the energy generated from food waste reduces environmental degradation by reducing carbon dioxide and methane emissions.
- Organic waste is decomposed naturally by storing it in pits, and it is converted into manure.

Wastewater treatment and reuse:

- Wastewater treatment plants operate in the Main campus (300 KLD) and MIT Campus (200 KLD). Due to an increase in the students' strength, the quantum of wastewater generated is rising. A 300 KLD treatment plant with an ultra-filtration facility and back washing arrangement in the students' hostels is nearing completion in the main campus. A similar facility with 200 KLD capacities is under construction at MIT campus. In addition, a 200 KLD treatment plant is under construction in the Main campus, and it is planned to use the treated water for gardening purposes.

Biodiversity

- Anna University conducted a rapid assessment of the biodiversity of the University campus and staff quarters, undertaken during July and August 2018 by a team of young graduate trainees turned into ecologists and wildlife biologists. The assessment shed light on the extent and quality of different habitats that support biodiversity on the campus.

Vegetation and Tree planting

- The open spaces in the campus have green cover with trees and plants. Nearly 6500 trees are in the main campus. 30-40 years old trees are present in the campus, and most of them are of the indigenous variety. In the current year, 1000 tree saplings have been planted.

- A Green Committee monitors the maintenance of trees and reviews and advises if there is a requirement for cutting of trees due to construction activities. The Green Committee assesses the need for tree removal and recommends planting at least 5 saplings for every tree removed or re-plantation.
- Organic farming is practiced in the field lab located in the Main Campus.
- The NSS units have an outreach activity and are involved in tree planting in the nearby selected villages.

Reduction in usage of vehicles inside campuses

- Driving motorized vehicles inside the campus is restricted to minimize emission levels.
- E-vehicle usage is implemented to reduce the use of fossil fuel vehicles inside the campus. Three e-vehicles of 14-seat capacity and one 4-seat capacity are used by students/staff and visitors to commute inside the campus. Daily, each of the 14-seat capacity e-vehicles runs for nearly 90 km.
- Cycle riding is encouraged for commuting inside the campuses. A cycle parking facility is provided to encourage cycle owning and riding by the students and staff inside the campuses.
- Pedestrian-friendly footpaths with a tactile path for the differently abled are provided throughout the campus to encourage walking inside the campus.



Green Initiative Achievement

Awards and Recognitions

- Globally, 7th Rank in SDG 6 - Clean Water and Sanitation by Times Higher Education (THE) Impact Rankings-2020.
- District Green Champion Award-2022 from the Ministry of Education, Government of India.

PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED

- Although the campus follows solid waste segregation at source, it has become a challenge to implement at the desired level, as visitors and construction laborers often violate the instructions.
- Acceptance of the staff and students for restricted vehicle usage in the campus was challenging at the initial stages, but gradually patronage has increased through awareness programmes.

File Description	Document
Best practices in the Institutional web site	View Document
Any other relevant information	View Document

7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

ESTABLISHMENT OF UNMANNED AERIAL VEHICLE CORPORATION

Preamble on distinctive area

Anna University has been doing pioneering work in the domain of Drones/Unmanned Aerial Vehicles (UAVs) since the early 2000s.

Drones are significant creators of employment and economic growth due to their possible deployment in various sectors: law enforcement, mining, municipal administration, urban development, water management, agriculture, disaster management, health, forestry, archaeology, GIS & environmental studies, fire, survey, tourism, project/asset monitoring, etc.

Being cognizant of Anna University's prominent leadership in this field, the Government of Tamil Nadu entered into a technical partnership with the Centre for Aerospace Research (CASR), MIT Campus, Anna University to establish the Tamil Nadu Unmanned Aerial Vehicles Corporation (TNUAVC) in the year 2022, to cater to the drone-related demand in various sectors. The establishment of a corporation by the government based on the pioneering work of a university is a first of its kind in India. Further, the Directorate General of Civil Aviation (DGCA), Government of India, approved Anna University as India's first Remote Pilot Training Organization (RPTO) in the small and medium category drones under UAS Rules 2021.

Various Objectives of Drone Corporation:

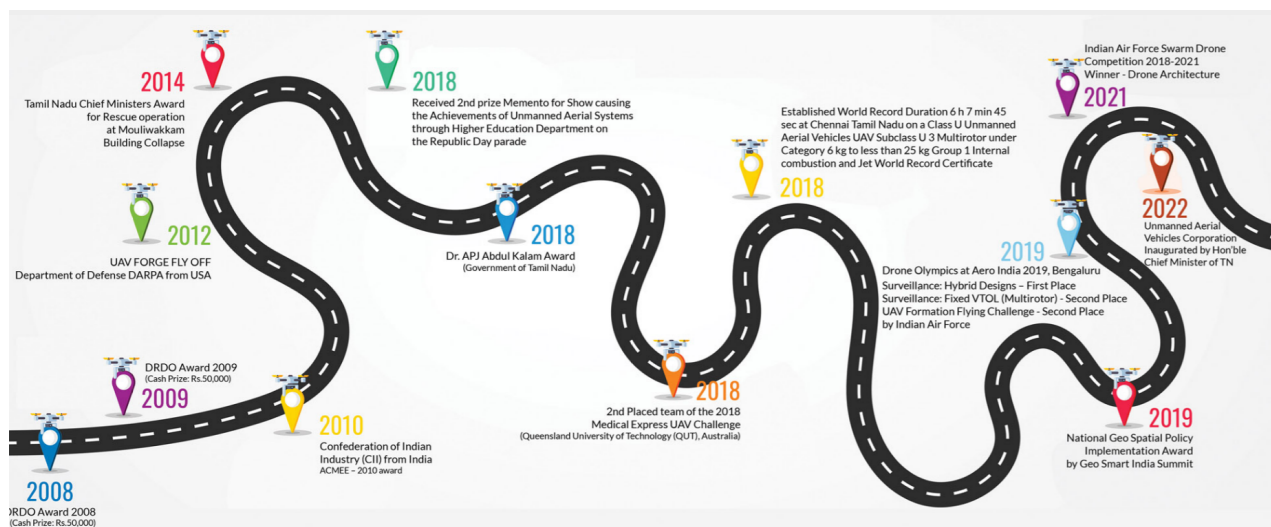
- To explore innovative usage of drones to be deployed in challenging areas in various sectors.
- To promote the setting up of drone training infrastructure for improving qualified manpower in the State.
- To encourage public and private investment in research and development, innovation, manufacturing, testing, training, and safety regulations.
- To incentivize the start-ups and other drone manufacturing units in the State.
- To use drones to mitigate risks and meet safety challenges.

Evolution

In 2001 Anna University established the "Centre for Aerospace Research (CASR)" at the MIT Campus for executing research projects. The Centre handled three major projects from its inception, namely Micro

Satellite Design & Development (Rs. 5 crores), sponsored by ISRO (2001-2009) and High-Temperature Material Characterization (2013) (Rs. 5 crores) sponsored by DRDO, Design and Development of Unmanned Aerial Vehicles for societal applications (Rs. 20 crores) sanctioned under the Tamil Nadu Innovation Initiative (TANII) (2016) scheme. In 2008 & 2009, CASR received an award from DRDO for the best UAV design. In 2012, CASR received an award from DARPA (Defense Advanced Research Projects Agency) for completing the DOD (Department of Defense) mission and the UAV Forge Fly-Off competition. In 2014, CASR was awarded the Tamil Nadu Chief Ministers Award for the Rescue operation at Mouliwakkam Building Collapse. The faculty members in CASR are involved in designing and developing indigenous UAVs and deploying them in various societal applications.

Anna University provided the initial financial support to the faculty members and research scholars towards the activities of UAV. From 2009- 2012, CASR received financial support from the Centre for Technology Development and Transfer (CTDT), Anna University, under Young Faculty Scheme, and carried out their research in UAV design and development. Director, CASR, MIT, Anna University is one of the members of Quality Control of India (QCI) and continues to contribute to this entity which recommends the Type Certificate (TC) of drones to DGCA.



Systematic Growth

CASR actively deployed UAVs in the following societal applications:

- Uttarkhand flood (2013), Rameswaram TV tower structural monitoring (2014), Ennore oil spill (2017), The Kurangani forest fire (2018).
- Post Flood Scenario Mapping at Mudichur & Thirumudivakkam (Tamil Nadu State Disaster Management Authority in 2015 and during the Vardah cyclone in 2016).
- Crowd monitoring and surveillance and assisting of the Tamil Nadu Police (Republic Day Parade and Independence Day celebrations) (2013-2022) and Thevar guru Pooja (2013-2022) and the Tiruvannamalai Karthigai Deepam festival (2013).
- Spraying the disinfect during COVID pandemic, 2020.
- In 2021, CASR Anna University participated in the Mehar Baba Competition organized by the Indian Air Force and was awarded for best drone architecture category.
- Scene of Crime Mapping using drones in Helicopter Crash Site at Kattery Village, Coonoor, Ooty in 2021.
- Coastal Security Operations UAV Demonstration, Coastal Security Group for the Tamil Nadu Police at Mid Sea in 2021.



**Drone Demonstration to Dr.A.P.J.Abdul Kalam
(Former President of India) @ 2012**



ISRO Chairman Dr.K.Sivan visited AU-CASR

A Brief Look at the Achievements of CASR and Anna University

2018

- Received the second prize for showcasing the achievement of Unmanned Aerial Vehicle systems through the Higher Education Department during the Republic Day Parade.
- Achieved a National record of 6 hours 7 minutes 45 seconds fly with a payload of 6.5 kilograms (Aero Club of India).
- Placed 2nd in the Medical Express UAV Challenge, Australian Centre for Robotic Vision, and the Queensland University of Technology.
- Awarded the Dr.APJ Abdul Kalam award for excellence in UAV research by the Government of Tamil Nadu.

2019

- Won the India Geospatial Application Excellence Award.
- The following prizes were won at the drone Olympics conducted by Aero India, Government of India.
 - Surveillance: 4-20 kilograms for Hybrid Designs-First Place.
 - Surveillance: 4-7 kilograms for Fixed VTOL (Multirotor) - Second Place.
 - UAV Formation Flying Challenge – Second Place.

2020

- MoUs with PJTSAU & ICAR Telangana, TNAU Tamil Nadu, NRSC Hyderabad, and the Department of Geology and Mining, Government of Tamil Nadu.

2021

- Awarded the Hybrid Sprayer Drone Innovation Award by the Government of Tamil Nadu.
- The National Geo-Spatial Policy Implementation Award.

2022

- Registered Centre for Remote Pilot Training Organization (RPTO) under UAS rules 2021 of the Ministry of Civil Aviation and is approved by the Directorate General of Civil Aviation (DGCA).



Achievements

Future goals

- To generate 1,00,000 direct and indirect employment opportunities.
- To design, manufacture, market, and deliver cutting-edge drone services.
- To promote the usage of drones by various Departments.
- To provide Maintenance, Repair, and Overhaul (MRO) facilities and to provide engineering, testing, and consultancy services.
- To generate world-class UAS Instructors and Pilots via the safest, most efficient training.
- To attract investment for the development, operation, and maintenance of the drone services ecosystem in the state.
- To fly Beyond the Visual Line of Sight for maximum efficiency.
- Identifying policy measures for utilizing drones in Disaster management.
- To develop Swarm drone technology.

File Description	Document	
Any other relevant information	View Document	
Appropriate web in the Institutional website	View Document	

5. CONCLUSION

Additional Information :

The biggest challenges that most universities face today is to offer affordable, quality education. In this respect, Anna University has been able to do a fine balancing act of offering education that is world class and at the same time affordable to a large majority of students. This financial self-reliance was attained by the University by generating funds through various sources such as academic, research, consultancy, training and administrative activities without seeking aid from the Government.

Anna University conducted a massive brainstorming session with various stakeholders in 2022, (approximately 150 industrial experts participated in the session), to devise industry- aligned, skill-based curriculum for enhancing the employability of engineering students. The inputs from the industry personnel helped in completely revamping the syllabus for the affiliated colleges. Taking a cue from this, it is proposed to frame a similar industry- aligned curriculum with enhanced flexibility for the University Departments, which is to be implemented from the academic year 2023 onwards. The large-scale brainstorming session was recognized by the Government of Tamil Nadu, which subsequently partnered with Anna University to upskill engineering students by initiating the 'Naan Mudhalvan' scheme. The construction giant Larsen & Toubro recognized this initiative by the University and awarded the University with the '*Best Industry Engaged State University*' in 2022.

The Government of Tamil Nadu sanctioned Rs. 7.5 crores to Anna University for creating Digital Valuation System (DVS) towards ensuring prompt and proper valuation of examination manuscripts. It is planned to implement DVS in University Departments and post successful demonstration in the University, it shall be replicated in the affiliated colleges.

Several UG/PG programmes were offered first by Anna University and was replicated later by other academic institutes.

The Anna University – K.B. Chandrasekhar (an alumnus of the MIT campus) Research Centre (AU-KBC) is the first Private-Public Partnership model in a University setup and the several Alumni initiated scholarships are noteworthy examples of the valuable contribution and involvement of the Alumni of the University.

Acquainted with expertise and the skillset of the University faculty, the Government of Tamil Nadu has recently partnered with Anna University towards establishing the 'Unmanned Aerial Vehicle Corporation', launching an industrial park in the field of Healthcare Instrumentation and for the implementation of the Chief Minister's Green Energy Fellowship Scheme.

Concluding Remarks :

Anna University possesses a distinct legacy, it has the prestige of being the oldest Technical Institution in Asia and the oldest one established outside of Europe. Though being the oldest institution, the University strives to be a pioneer in Academics, Research, Training and Consultancy by being a forerunner in the field of technology.

Several Centres established by the University have been unique and first of their kind in India. These Centres,

over the years, have progressed exponentially, attained financial autonomy and are achieving accolades at the national/international level. Some of the fruitful outcomes from these centres are building of the first micro satellite (ANUSAT) by an educational institution, Unmanned Aerial Vehicles (UAVs), establishing the first community radio in the country, rapid diagnostic filarial diagnostic kits, healthcare devices, technology transfers, national surveys, study reports, policy documents, and India's first Remote Pilot Training Organization (RPTO), etc.

Anna University is currently envisioning an amalgamation of experts from its Centres/Departments and creation of a multidisciplinary research group towards solving global issues. The "Entrepreneurship Development and Innovation Council (EDIC)" is a perfect example of the above initiative, wherein existing Centres/Hubs like TEC, AIC-AU, ANIHEES, CIPR, CED, UIC and NHHID have been brought under one umbrella to facilitate start-ups and commercialization of prototypes. On a similar line, a proposal is on the anvil for the creation of a "Council for Sustainable Development" by the amalgamation of Centres like Institute for Energy Studies, Centre for Climate Change and Disaster Management, Centre for Environmental Sciences, Centre for Water Resources, Institute for Remote Sensing, Institute for Ocean Management and the National Centre for Sustainable Coastal Management.

Anna University - with the responsibility to prevent obsolescence of traditional knowledge and skillset - has established two new centres - the Centre for Technology in Traditional Medicine and the Centre for Blended Learning & Human Empowerment. Further, the Centre for Liberal Arts for Science, Engineering and Technology has been established to improvise the co-curricular activities of students.

Anna University strives towards the creation of a sustainable and peaceful society through quality in education, autonomy in research, an entrepreneurial ecosystem and endeavors to be recognized as a global benchmark University by inculcating young minds with a blend of scientific temper and harmonious thoughts.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.1.3	<p>Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years</p> <p>1.1.3.1. Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>2603</td> <td>2788</td> <td>3150</td> <td>3000</td> <td>3008</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>2603</td> <td>2788</td> <td>3150</td> <td>3000</td> <td>3008</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	2603	2788	3150	3000	3008	2021-22	2020-21	2019-20	2018-19	2017-18	2603	2788	3150	3000	3008
2021-22	2020-21	2019-20	2018-19	2017-18																	
2603	2788	3150	3000	3008																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
2603	2788	3150	3000	3008																	
1.2.1	<p>Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.</p> <p>1.2.1.1. How many new courses were introduced within the last five years. Answer before DVV Verification : 2673 Answer after DVV Verification: 2673</p> <p>1.2.1.2. Number of courses offered by the institution across all programmes during the last five years. Answer before DVV Verification : 7585</p>																				
1.3.2	<p>Number of value-added courses for imparting transferable and life skills offered during last five years.</p> <p>1.3.2.1. How many new value-added courses are added within the last five years. Answer before DVV Verification : 120 Answer after DVV Verification: 116</p>																				
1.3.4	<p>Percentage of students undertaking field projects / research projects / internships (Data for the latest completed academic year).</p> <p>1.3.4.1. Number of students undertaking field projects or research projects or internships. Answer before DVV Verification : 3059 Answer after DVV Verification: 3059</p> <p>Remark : DVV input as per purporting documents attached by HEI during clarification</p>																				
2.4.3	<p>Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)</p>																				

2.4.3.1. Total experience of full-time teachers

Answer before DVV Verification : 10495

Answer after DVV Verification: 10430

Remark : Revised values as per attached supporting documents submitted by HEI during clarification

2.4.4 Average percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the last five years

2.4.4.1. Number of full time teachers receiving awards from state /national /international level from Government/Govt. recognized bodies year wise during the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
35	29	33	27	30

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
30	25	26	21	29

2.5.4 Status of automation of Examination division along with approved Examination Manual

Answer before DVV Verification : 100% automation of entire division & implementation of Examination Management System (EMS)

Answer After DVV Verification: 100% automation of entire division & implementation of Examination Management System (EMS)

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

3.1.2.1. The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
187.55	0	20.97	18.86	21.43

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
187.55	0	20.97	18.86	21.43

3.1.3 Percentage of teachers receiving national / international fellowship / financial support by various agencies for advanced studies / research during the last five years.

3.1.3.1. The number of teachers who received national / international fellowship / financial support by various agencies for advanced studies / research year-wise during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
65	24	46	53	44

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
27	9	26	36	28

3.1.4 Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the last five years.

3.1.4.1. The Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other research fellows enrolled in the institution year-wise during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
116	97	63	99	158

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
69	58	38	67	114

3.1.6 Percentage of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies (Data for the latest completed academic year)

3.1.6.1. The Number of departments with UGC-SAP, CAS, DST-FIST , DBT, ICSSR and other similar recognitions by national and international agencies.

Answer before DVV Verification : 13

Answer after DVV Verification: 13

3.2.1 Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the last five years (INR in Lakhs).

3.2.1.1. Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years (INR in Lakhs).

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
401.98	699.21	471.41	530.59	213.27

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
401.98	699.21	462.01	501.36	183.37

3.2.2 **Grants for research projects sponsored by the government agencies during the last five years (INR in Lakhs).**

3.2.2.1. **Total Grants for research projects sponsored by the government agencies year-wise during the last five years (INR in Lakhs).**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
2863.16	8266.84	2737.06	1760.88	5633.20

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
2863.16	8266.84	2737.06	1760.88	5137.14

3.3.2 **Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.**

3.3.2.1. **Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
92	144	92	52	50

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
92	144	92	52	50

3.3.3 **Number of awards / recognitions received for research/innovations by the institution / teachers / research scholars / students during the last five years.**

3.3.3.1. **Total number of awards / recognitions received for *research* / innovations won by institution / teachers / research scholars / students year-wise during the last five years.**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
71	62	66	58	50

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
66	54	56	42	29

3.4.1 **The Institution ensures implementation of its stated Code of Ethics for research through the following:**

- 1. Inclusion of research ethics in the research methodology course work**
- 2. Presence of Ethics committee**
- 3. Plagiarism check through software**
- 4. Research Advisory Committee**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: A. All of the above

3.4.2 **The institution provides incentives to teachers who receive state, national and international recognitions/awards**

- 1. Commendation and monetary incentive at a University function**
- 2. Commendation and medal at a University function**
- 3. Certificate of honor**
- 4. Announcement in the Newsletter / website**

Answer before DVV Verification : A.. All of the above

Answer After DVV Verification: A.. All of the above

3.4.3 **Number of Patents published / awarded during the last five years.**

3.4.3.1. **Total number of Patents published / awarded year-wise during the last five years.**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
118	70	38	33	19

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
110	69	37	33	19

3.4.5 **Number of research papers per teachers in the Journals notified on UGC website during the last five years**

3.4.5.1. Number of research papers in the Journals notified on UGC website during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1886	1347	1274	1012	1036

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
1827	1307	1248	976	1001

Remark : DVV input as per attached supporting data by HEI during clarification

3.4.6 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

3.4.6.1. Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
571	500	439	539	540

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
565	499	439	535	537

3.5.2 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

3.5.2.1. Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
2160.31	2364.33	2843.97	3100.13	2183.59

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
2159.82	2364.20	2853.22	3100.13	2183.59

3.6.2 Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the

last five years

3.6.2.1. Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
20	32	24	6	8

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
18	27	15	6	7

3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

3.6.3.1. Number of extension and outreach programs conducted by the institution those through NSS/NCC, Government and Government recognised bodies during the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
49	30	46	49	33

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
35	21	39	40	28

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

3.6.4.1. Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
9944	3127	5164	5961	5732

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
8273	2479	4414	5206	5137

3.7.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year

3.7.1.1. Total number of Collaborative activities with other institutions / research establishment / industry for research and academic development of faculty and students year-wise during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
280	201	124	154	106

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
280	201	123	154	106

3.7.2 Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years.

3.7.2.1. Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research year-wise during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
36	28	21	33	28

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
36	28	21	33	28

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

4.2.3.1. Annual expenditure for the purchase of books and journals including e-journals year-wise during last five years (INR in Lakhs)

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
398.42	289.47	296.74	299.97	187.40

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
398.42	289.47	296.74	299.97	187.40

4.3.1 Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart

board, Wi-Fi/LAN, audio video recording facilities. (Data for the latest completed academic year)

4.3.1.1. Number of classrooms and seminar halls with ICT facilities

Answer before DVV Verification : 339

Answer after DVV Verification: 331

Remark : DVV input as per attached documents by HEI during clarification

5.1.2 Average percentage of students benefitted by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

5.1.2.1. Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
5860	2913	7104	6674	7276

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
5860	2913	7104	6674	7276

5.2.1 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

5.2.1.1. Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.)) year-wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
241	123	181	125	120

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
211	113	166	106	104

5.2.1.2. Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
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5.2.2	<p>Average percentage of placement of outgoing students during the last five years</p> <p>5.2.2.1. Number of outgoing students placed year - wise during the last five years. Answer before DVV Verification:</p> <table border="1" data-bbox="306 309 1046 443"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>2677</td> <td>1682</td> <td>1253</td> <td>1374</td> <td>1273</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 521 1046 656"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>2677</td> <td>1682</td> <td>1253</td> <td>1374</td> <td>1273</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	2677	1682	1253	1374	1273	2021-22	2020-21	2019-20	2018-19	2017-18	2677	1682	1253	1374	1273
2021-22	2020-21	2019-20	2018-19	2017-18																	
2677	1682	1253	1374	1273																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
2677	1682	1253	1374	1273																	
5.2.3	<p>Percentage of student progression to higher education (previous graduating batch).</p> <p>5.2.3.1. Number of outgoing student progressing to higher education. Answer before DVV Verification : 366 Answer after DVV Verification: 366</p>																				
5.3.1	<p>Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) during the last five years.</p> <p>5.3.1.1. Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years. Answer before DVV Verification:</p> <table border="1" data-bbox="306 1256 1046 1391"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>42</td> <td>22</td> <td>46</td> <td>53</td> <td>37</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 1469 1046 1603"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>38</td> <td>22</td> <td>38</td> <td>46</td> <td>26</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	42	22	46	53	37	2021-22	2020-21	2019-20	2018-19	2017-18	38	22	38	46	26
2021-22	2020-21	2019-20	2018-19	2017-18																	
42	22	46	53	37																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
38	22	38	46	26																	
5.3.3	<p>Average number of sports and cultural events / competitions organised by the institution per year</p> <p>5.3.3.1. Number of sports and cultural events / competitions organised by the institution year - wise during the last five years. Answer before DVV Verification:</p> <table border="1" data-bbox="306 1883 1046 2018"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>53</td> <td>60</td> <td>32</td> <td>46</td> <td>32</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	53	60	32	46	32										
2021-22	2020-21	2019-20	2018-19	2017-18																	
53	60	32	46	32																	

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
50	49	35	32	32

6.2.3

Institution Implements e-governance covering following areas of operation

- 1. Administration**
- 2. Finance and Accounts**
- 3. Student Admission and Support**
- 4. Examination**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: A. All of the above

6.3.2

Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.

6.3.2.1. Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
220	144	294	217	225

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
219	144	290	213	222

6.3.3

Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

6.3.3.1. Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
68	71	108	183	148

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
68	71	108	182	146

6.3.4	<p>Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).</p> <p>6.3.4.1. Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 468 1046 602"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>175</td> <td>252</td> <td>184</td> <td>122</td> <td>230</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 680 1046 815"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>173</td> <td>247</td> <td>182</td> <td>109</td> <td>221</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	175	252	184	122	230	2021-22	2020-21	2019-20	2018-19	2017-18	173	247	182	109	221
2021-22	2020-21	2019-20	2018-19	2017-18																	
175	252	184	122	230																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
173	247	182	109	221																	
6.4.3	<p>Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)</p> <p>6.4.3.1. Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 1093 1046 1227"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>745.5</td> <td>282.5</td> <td>546.4</td> <td>972.9</td> <td>891.08</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1305 1046 1440"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>745.5</td> <td>282.5</td> <td>546.4</td> <td>972.9</td> <td>891.08</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	745.5	282.5	546.4	972.9	891.08	2021-22	2020-21	2019-20	2018-19	2017-18	745.5	282.5	546.4	972.9	891.08
2021-22	2020-21	2019-20	2018-19	2017-18																	
745.5	282.5	546.4	972.9	891.08																	
2021-22	2020-21	2019-20	2018-19	2017-18																	
745.5	282.5	546.4	972.9	891.08																	
7.1.2	<p>The Institution has facilities for alternate sources of energy and energy conservation measures</p> <ol style="list-style-type: none"> 1. Solar energy 2. Biogas plant 3. Wheeling to the Grid 4. Sensor-based energy conservation 5. Use of LED bulbs/ power efficient equipment <p>Answer before DVV Verification : A. 4 or All of the above Answer After DVV Verification: A. 4 or All of the above</p>																				
7.1.5	<p>Green campus initiatives include:</p> <ol style="list-style-type: none"> 1. Restricted entry of automobiles 2. Use of Bicycles/ Battery powered vehicles 																				

	<p>3. Pedestrian Friendly pathways 4. Ban on use of Plastic 5. landscaping with trees and plants</p> <p>Answer before DVV Verification : A. Any 4 or All of the above Answer After DVV Verification: A. Any 4 or All of the above</p>
7.1.6	<p>Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:</p> <p>1. Green audit 2. Energy audit 3. Environment audit 4. Clean and green campus recognitions / awards 5. Beyond the campus environmental promotion activities</p> <p>Answer before DVV Verification : A. Any 4 or all of the above Answer After DVV Verification: A. Any 4 or all of the above</p>
7.1.7	<p>The Institution has disabled-friendly, barrier free environment</p> <p>1. Built environment with ramps/lifts for easy access to classrooms. 2. Divyangjan friendly washrooms 3. Signage including tactile path, lights, display boards and signposts 4. Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading</p> <p>Answer before DVV Verification : A. Any 4 or all of the above Answer After DVV Verification: A. Any 4 or all of the above</p>

2.Extended Profile Deviations

ID	Extended Questions																				
1.2	<p>Number of full time teachers year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>870</td> <td>908</td> <td>884</td> <td>872</td> <td>843</td> </tr> </tbody> </table> <p>Answer After DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>852</td> <td>852</td> <td>852</td> <td>852</td> <td>777</td> </tr> </tbody> </table>	2021-22	2020-21	2019-20	2018-19	2017-18	870	908	884	872	843	2021-22	2020-21	2019-20	2018-19	2017-18	852	852	852	852	777
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