



**SELF STUDY REPORT**  
**FOR**  
**3<sup>rd</sup> CYCLE OF ACCREDITATION**

**ADHIYAMAAN COLLEGE OF ENGINEERING**

**DR. M. G. R. NAGAR, HOSUR, KRISHNAGIRI (DT), TAMILNADU.**

**635130**

**[www.adhiyamaan.ac.in](http://www.adhiyamaan.ac.in)**

**Submitted To**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

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## **Executive Summary**

### ***Introduction:***

**Adhiyamaan College of Engineering (ACE)** was established in the year 1991 which is now affiliated to Anna University, Chennai. The sprawling campus is housed at a serene atmosphere abutting National Highway (NH-7).

The institution is 6 km from Hosur Bus-stand/Railway station and 85 km from Bengaluru International Airport. The college offers 11 UG and 7 PG programmes. Further, it has 5 R&D Centres approved by Anna University, Chennai.

ACE got autonomous status in the year 2007 and completed two cycles of accreditation by NAAC. Many of the UG programmes are accredited by NBA Tier 1 under Washington Accord. Also, the institution possesses 2f and 12B Status. ACE has been ranked among the top institutions in the Institution Innovation Council and ARIIA ranking of Ministry of Education.

ACE has established Technology Business Incubator (TBI) in the campus with the grant-in aid support of DST, GoI which is a unique facility for converting innovative ideas into commercial products.

ACE houses qualified and intellectually proven faculty for teaching and also has state of the art laboratories with adequate power back up. The Centralized digital library contains 1, 50,000 books and subscribes many national and international journals.

Adequate number of air-conditioned seminar/conference halls are available to conduct various activities like seminar, symposium, workshop etc. by all the departments and the chapters of Professional bodies like IE(I),ISTE, IChE, NSED, IETE, IEEE, CSI etc. It also has a multipurpose indoor stadium with the seating capacity of 7000 and extensive outdoor sports complex.

Further, ACE has separate hostels for boys and girls and a hygienic food court and canteen for day scholars. Amenities like Indian Overseas Bank with ATM, Post Office, Stationary Stores and Reprography are available. The guest room facility and medical extension centre with ambulance are prevailing. It also extends transportation facility covering 75 km radius.

### ***Vision:***

To foster ACE as a center for nurturing and developing world class Engineers and Managers who convert global challenges into opportunities through value-based quality education.

### ***Mission:***

- To impart value-based quality education through effective teaching-learning processes.

- To nurture creativity, excellence and critical thinking by applying global competency factors to contribute and excel in the rapidly growing technological world.
- To continuously develop and improve holistic and innovative personality for global mobility.
- To make ACE a center for excellence.

## **SWOC**

### ***Institutional Strength :***

ACE nurtures multidisciplinary academic excellence through quality education, core values and derive maximum benefits from undergraduate, postgraduate, and research programmes.

### ***Vision and Mission:***

The institute's vision and mission envisages horizontal and vertical integration across all realms of knowledge.

### ***Curricular aspects:***

- CBCS curriculum implemented relevance to the local, national, regional and global developmental needs.
- Integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability.
- Outcome Based Education with defined objectives
- Good number of value added courses offered beyond the curricula

### ***Teaching & Learning:***

- Scope for Peer-Learning, Intramural Hackathons and Competitions
- Remedial classes for slow learners as good practice
- Effective implementation of ICT tools

### ***Research and Extension:***

- DSIR Recognition for Scientific and Research Activities
- Centralised research facilities for Faculty & Students
- Incubation Facilities and Innovation centres (ACE-TBI) to support Students and Faculty
- DST-NIDHI PRAYAS scheme implemented for the benefit of young inventors

### ***Infrastructure:***

- Well equipped with necessary infrastructure, classrooms, modern building, library, computer laboratory and sports with state of the art facility

### ***Employability Skills Training:***

- Recognizes skill development as pre-requisite to employability and imparts a variety of soft skills like communication, interview performance, problem solving skills, business correspondence, work ethics etc.

### ***Governance and Leadership:***

- Decentralized Governance with transparency, defined roles and responsibilities

### ***Implementation of Good Practices:***

- Gender equity, alternate sources of energy and energy conservation measures, Water conservation facilities, Green campus initiatives and Quality audits on environment and energy.

#### ***Events and programs:***

- Year wise programs are planned and organized by students to show case their talents and organizing abilities and learning event management processes.

#### ***Institutional Weakness :***

- Weak Socio-economic and Educational background of students: In the recent past, the admissions for most of the courses are flooded with students from backward rural areas and backward classes.
- Down fall of admissions in core branches like Mechanical, Civil etc.,
- The institution is self-finance and unaided. The funding from Government/nongovernment and private agencies for research has been minimal.
- 90% of research projects are form Civil Engineering Department only
- H-index has to be improved
- The institution is short of % recognition of research guideship of eligible faculty members.
- The potential of industry-sponsored research is yet to be optimised.
- Progression of students to higher education
- Minimum number of departments have NBA accreditation

#### ***Institutional Opportunity :***

##### ***Developing and introducing new emerging courses:***

- The institution has to be dynamic to the changing needs of the society by introducing new emerging courses like Artificial Intelligence, Cyber Security, Machine Learning, data Science etc. which have greater need and demand from the student community.

##### ***Developing a new student centric pedagogy:***

- As an autonomous institution there is scope for introducing newer methods of teaching which would evoke and retain student interest in learning.
- Integrating Technology into Teaching & Learning
- Supplementing Teaching-Learning through SWAYAM, A-View, Virtual Laboratories of IIT Bombay, IIT Delhi and IIT Kharagpur and NPTEL.
- Offering Value Added Courses in the Emerging Areas

#### ***Research & Extension:***

- Promoting Intellectual Property Rights culture among students
- Institution had a facility to establish more R&D laboratories
- Scope for IIPC have to sign more MoU's with neighbouring industries
- Opportunity to generate Revenue through consultancy and corporate training.
- Attracting more funds for increasing extension activities and services

#### ***Sports:***

- With good sports infrastructure facility, Institution have to excel in all sports activities

#### ***Renewable energy:***

- The institution has great scope for harnessing renewable energy from all natural resources and pursuing research in the field.

### ***Institutional Challenge :***

Though ACE has made significant strides in all spheres of student development, it is still facing the following challenges:

- Increasing market competition, establishment of more centrally funded institutions, universities (Central, Deemed-to-be and State Private) and online education portals result in shift in the admission pattern and localised concentration of students, which is a major challenge faced by the Institution.
- Tangible gaps between academic and industry practices
- Declining trends in conventional engineering streams (Mechanical, Civil, Chemical and Electrical Engineering)
- Diminishing funding opportunities for self-financed institutions
- Rising costs of overheads and resources

### **Criteria wise Summary**

#### ***Curricular Aspects :***

**Adhiyamaan College of Engineering (ACE)** offers curricula which provide Quality-Skills cum Value-Based Education with unique learning objectives. The curricula provide career and professional accomplishments throughout the graduation/post-graduation by nurturing knowledge acquisition and skills through appropriate Program Educational Objectives (PEOs) in compliance with PSOs, POs, Vision and Mission of the Department and the Institution.

The curricula with Choice-Based Credit System (CBCS) focuses on Outcome-Based Education (OBE). The Curricula are designed and developed as per the guidelines of UGC, AICTE, NBA and Anna University along with the Committee of the institution, stakeholders and professional bodies. Board of Studies (BoS) monitors and reviews the existing program structure and course syllabi. It also updates pedagogies based on the feedback from stakeholders. Further, it regularly updates curricula according to the industrial trends, socio-economic and environmental needs.

The feedback is collected from stakeholders and BoS-related workshop conducted involving the entire faculty at the department level to incorporate suggestions and recommendations on need-based changes/modifications in the curricula. Subsequently, the BoS approves the curriculum and the same is presented to the Academic Council for its consideration and final approval, with or without modification.

The courses in the curriculum address the practice of right attitudes and value-based ethical behavior of learners in their personal lives and professional work environment. New age courses such as Virtual and Augmented Reality, Electric Vehicle Technology, Computational Fluid Dynamics, Urban Design, IoT in Medical Applications, Artificial Intelligence, Cloud Computing, Robotics and Automation etc. provide ample employability and entrepreneurship opportunities.

Industrial safety, Biosafety, Environmental Science and Engineering, Industrial Waste Water Treatment, Air Pollution Control and Design of Equipment, Professional Ethics and Human Values, Sanitary Engineering, Disaster Mitigation and Management, Green Electronics, Green Computing and such others as incorporated along with regular course-work, deal with cross-cutting issues relevant to Gender, Human Values, Ethics and Environmental Sustainability.

The curricula offer elective courses with emerging trends catering to Academic flexibility. MoUs with industries entail Industrial Visits, In-Plant Training, Internships and Projects. This leads to collaborative institution-industry interface and research and is the first-step exposure to global developmental needs to achieve competence with comparable professional talents across the world.

### ***Teaching-learning and Evaluation :***

The Teaching-Learning (TL) process of ACE has been structured adhering to student-centric philosophy as delineated below:

- Students are admitted through TNEA and Consortium of Self-Financed Colleges of Tamilnadu following transparent structure with incessant determination to attract students from diverse geographical locations to advance their profile and be acquainted with cross-cultural learning.
- Seats are filled adhering to the government norms on reservations and around 80% of seats is filled against reserved categories.
- The mechanism for learner level identification (slow and advanced) is practiced so as to create uncompromising learning curves and measures of student academic performance and improvement.
- The student-teacher ratio is 1:15. The prime focus is laid on experiential learning, participative learning and problem solving methodologies which in turn enhances the learning experience to meet out the expectations of the educational, professional and industrial demands as well as real-life situations.
- To nurture and augment creativity and innovation, ICT tools are extensively utilized by the faculty members.
- Mentoring plays a vital role in the overall development of every individual which ACE believes in, admires and executes to support through established mechanisms.
- Adherence to Annual strategic plan, academic calendar, faculty log book, course plan preparation, presentation and systematic review serve as guideposts of effective TL execution.
- All sanctioned posts are filled through a well-structured recruitment process. ACE has 65 faculty members with Ph.D, and 40 more have been pursuing Ph.D. The average teaching experience of faculty members in the same institution is 7.8 years.
- Examination Management System (EMS) with the latest IT integration facilitates the conduct of all examination procedures pertaining to Continuous Internal Assessment (CIA) and End Semester Examination (ESE).
- The average number of days between last date of examination and date of declaration of results is 28 days. The average number of grievances relating to examination is 2%.
- OBE is followed with a total focus on the measurement of student performance through Learning Outcomes. The pass percentage for the latest final year passed out batch is 98.45.

### ***Research, Innovations and Extension :***

ACE has a well-framed Research Committee comprising of senior faculty members deeply involved in research. The institution has five research centres recognized by Anna University. Many Faculty members are also recognized as research supervisors by the Anna University, Chennai.

The Institution has received financial grants from Government funding agencies and NGOs to the tune of 581 Lakhs. The Institution provides Seed Money to the faculty members for carrying out research activities. The budget provides a provision for expenses on research activities such as paper presentation in national/international conferences in India and abroad, attending FDPs and workshops.

The Industry-Institution Partnership Cell of ACE interacts with the industry/corporate world including Hosur Industries Association, Hosur Small and Tiny Industries Association for networking and collaborating with corporate houses, professional association and alumni to strengthen the interface.

Apart from that, the departments depute faculty & students to various conferences/workshops conducted by these professional bodies from time to time to provide global exposure to students. Faculty members and outside experts are on the panel of the institution to provide consultancy services. The institute has a policy for sharing the income generated through consultancy projects.

As per policy, 60% of the total revenue generated is shared with the consultancy team and 40% remains with the institution for infrastructure support and other overheads. Faculty members are rewarded financially and

it adds to their contribution for the overall development and growth of the institution. The institute has been promoting the participation of students and faculty in extension activities every year.

The institution organizes awareness programmes and social activities on need-based community outreach in the nearby villages. The institution ensures the involvement of the community in its activities by organizing mass blood donation camps and plantation drives through different NGOs. Faculty members and students have been recognised for various extension activities.

The institution deputed students to the industries for internship to have practical exposure in their respective field of Engineering and Technology and has signed a good number of Functional MoUs with Industries and Research Laboratories.

### ***Infrastructure and Learning Resources :***

- The institution has adequate infrastructure and learning resources to achieve its objective of excellent professional education in Engineering, Technology and Management.
- The campus has a vast and well maintained campus with greenery and landscaping.
- The campus has 96 classrooms. The average measurement of each classroom is 86.10 sq.m. In addition, the institution has well-equipped laboratories, well-stacked digital library, spacious play ground, gymnasium and courts.
- The college has an indoor auditorium with a built up area of 12,540 sq. m. with the seating capacity of 7500, Indian Overseas Bank, ATM Centre, Guest House, Canteen and Food Courts, and power back up with two generators and UPS.
- Each department is given an exclusive staffroom with mandatory facilities.
- Many classrooms are equipped with LCD projectors to facilitate the modern teaching methods. Out of 96 classrooms, 73 have been made ICT-compliant. New facilities have been augmented during the past five years where several classrooms and laboratories have been added by incurring an expenditure of about Rs.138883610.00
- The total expenditure towards books and journals in the past five years is Rs.92.71 lakhs.
- ICT resources have been significantly strengthened in the institution with Computer to Student ratio being 1:3.
- Expenditure incurred on maintenance and renovation works in the college stands at about Rs.21700000.00
- The housekeeping work of the institution has been outsourced.
- An in-house Civil Engineer, System Administrator and a technician are appointed for the purpose of Maintenance of building, computers and equipment.
- An electrician is appointed to supervise the well being of electrical fixtures and electrical connections in the college.
- The college digital library has reprographic service and other essential services. ICT learning resources are also available in the college.
- Entire college campus is under 24-hour surveillance through CCTV.
- Lifts, Ramps and Wheel chair are available for the *Divyangjan*.

### ***Student Support and Progression :***

ACE has always been a student-centric Institution. Students can avail a number of support facilities and services for information, academic and career guidance, financial, co-curricular and extracurricular activities. The institution's portal provides necessary information for students on all aspects of campus life.

- The scholarship section provides information and support on various financial support schemes.
- All the students of the institution have undergone training in soft skills, Language and Communication skills, Life skills and Awareness of trends in technology. To bring out the technical skills of our students with a focus on arriving at solutions for real world problems, various competitions are conducted in ACE. Students are mentored to participate in Hackathons, *Ideathons* and funded Projects

like TNSCST, NITHI PRAYAS, etc. Encouragement is given for yoga, physical fitness, health and hygiene.

- ACE has a robust Tutor-ward system which has a systematic approach for student counseling and welfare. Career guidance is provided through a dedicated Placement and Training Cell. Guidance and coaching are provided to students to undertake competitive examinations.
- ACE has effectively implemented the statutory/regulatory bodies like Grievance Redressal Cell, Anti-Ragging, Internal Compliance Committee and Women Empowerment Committee to prevent sexual harassment and has implemented a zero-tolerance policy for ragging.
- Placement Cell arranges for campus recruitment. An average of 60% students have been placed in various MNCs like Infosys, CTS, TCS, Tech Mahindra, and Cap Gemini.
- 89 students have qualified in state/national/international level examinations.
- Students have won accolades in South-zone Inter-University tournaments like Football, Hockey, Kho-Kho, Boxing and Chess and brought laurels to the institution.
- Participation of students in academic and administrative bodies/committees like IQAC, Anti-Ragging, ICC, Professional bodies include ISTE, IEI, CSI, IETE, SCIENCE CLUB & FINE ARTS, Mess committee, class committee and Placement Committee.
- 50 sports/cultural events/competitions were organized by the institution. Students actively participate in extension activities through NSS and Youth Red Cross.
- Alumni chapters are established at various locations and alumni association engages effectively in the development of the institution through financial and support services.

### ***Governance, Leadership and Management :***

- Governance, Leadership and Management of ACE has a very high level of commitment for the institution's vision and mission.
- The Management always takes initiative to invite eminent resource persons to make the teaching-learning processes more effective and efficient.
- The Management and the Head of the institution strongly believe in delegation of work and participative responsibilities. Therefore, various committees are formed and the in-charge of the respective committee in turn designs, delegates and communicates their major responsibilities to its team members. On completion of the task, the in-charge reports to the Head of the institution.
- The Principal convenes regular meetings with the HoDs and ensures that adequate information is communicated to employees and at the same time the Management is informed about the progress.
- The Principal, Deans and HoDs can be approached by the students and the staff for issues that require immediate attention and given top priority to redress it. Grievance redressal cells are duly formed for students and parents.
- A well-established online feedback mechanism is in place. Regular academic audit (both internal and external) are conducted at the end of each semester.
- The institution is governed by an e-governance model through ERP which provides a smooth flow of information amongst the administration, accounts, examination, staff and students to enhance the speed and quality of internal functioning.
- The institution adheres to the procedures and policy guidelines as envisaged in AICTE for recruiting of faculty.
- The Service Manual of the institution summarizes the human resources policies and practices which the Institution's Governing Council has approved.
- The institution provides medical concession in our sister concern-medical hospital for the benefit and welfare of the staff and students.
- The institution organizes various sponsored and management sponsored FDPs, seminars, workshops etc. for the development of faculty, staff and students.
- The staff is permitted on duty leaves for attending and participating in orientation, refresher courses, conferences, seminars, workshops etc.
- Additionally, the institution has an IQAC cell that designs, implements and reviews quality initiatives.

### ***Institutional Values and Best Practices :***



ACE aspires to develop an environmentally-sustainable campus that is plastic-free, with minimal waste produce, energy conservation, biodiversity protection and practice of self-sustainability through notable activities in the campus as the best practices.

ACE conducts Green Audit, Energy Audit, Environment Audit and Hygiene Audit in the campus to ensure promising environment to the students and staff.

ACE encourages gender equality and diversity which is reflected through various activities of WEC & ICC Cell, like awareness sessions, gender sensitization sessions and women health and safety sessions.

The college maintains eco-friendly environment by conserving energy through the use of glass windows for the classrooms to facilitate the maximum utilization of natural light.

Effective waste management strategies are adopted in the campus and the food waste is utilized in the biogas plant. The plant wastes are converted into manure by vermi-composting. The plastic and non-biodegradable materials are strictly prohibited in the campus.

Entire campus is facilitated with rainwater collection through storm water drains and roof top water harvesting system. Pedestrian-friendly pathway in campus restricts the entry of vehicles and provides a serene atmosphere.

The college has a clearly stated code of conduct for students, faculty, and staff. The responsibilities are well defined and are communicated to the faculty members to give their best to students in the teaching process.

Induction programme for first year students is organised to provide necessary information about college, faculty, staff and facilities of the college. Lectures of eminent personalities are organized to motivate the students to focus on social, psychological and academic aspects of their life.

The college inculcates human values and professional ethics through well trained and talented minds. Various activities such as International Yoga Day, Republic Day, Independence Day, Women's Day, Engineers day etc. are organized to inculcate ethical values among the students. Apart from the national days, various celebrations are organised in the campus to provide inclusive environment to imbibe social, regional, traditional and cultural values.

## Profile

### BASIC INFORMATION

Name and Address of the College	
Name	ADHIYAMAAN COLLEGE OF ENGINEERING
Address	Dr. M. G. R. Nagar, Hosur, Krishnagiri (DT), Tamilnadu.
City	Hosur
State	Tamil Nadu
Pin	635130
Website	<a href="http://www.adhiyamaan.ac.in">www.adhiyamaan.ac.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	G Ranganath	04344-261020	9443260071	04344-261573	principal@adhiyamaan.ac.in
IQAC / CIQA coordinator	N S Badarinarayanan	04344-261038	9487819104	04344-261573	iqac@adhiyamaan.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	01-01-1991
Date of grant of 'Autonomy' to the College by UGC	03-11-2008

University to which the college is affiliated		
State	University name	Document
Tamil Nadu	Anna University	<a href="#">View Document</a>
Tamil Nadu	Anna University	No File Found
Details of UGC recognition		
Under Section	Date	View Document
2f of UGC	29-02-2008	<a href="#">View Document</a>
12B of UGC	18-09-2013	<a href="#">View Document</a>

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	<a href="#">View Document</a>	03-07-2022	12	Approved by AICTE
COA	<a href="#">View Document</a>	04-07-2022	12	Approved by CoA
AICTE	<a href="#">View Document</a>	03-07-2022	12	Approved by AICTE
AICTE	<a href="#">View Document</a>	03-07-2022	12	Approved by AICTE
COA	<a href="#">View Document</a>	04-07-2022	12	Approved by CoA
AICTE	<a href="#">View Document</a>	03-07-2022	12	Approved by AICTE

Recognitions	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus				
Campus Type	Address	Location *	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Dr. M. G. R. Nagar, Hosur, Krishnagiri (DT), Tamilnadu.	Semi-urban	46.51	103956

## ACADEMIC INFORMATION

Details of Programs Offered by the College (Give Data for Current Academic year)						
Program Level	Name of Program/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BArch,Architecture	60	HSc or Equivalent	English	120	29
UG	BE,Aeronautical Engineering	48	HSc or Equivalent	English	60	30
UG	BE,Bio Medical Engineering	48	HSc or Equivalent	English	60	29

UG	BE,Civil Engineering	48	HSc or Equivalent	English	60	9
UG	BE,Computer Science Engineering	48	HSc or Equivalent	English	180	173
UG	BE,Electrical And Electronics Engineering	48	HSc or Equivalent	English	60	45
UG	BE,Electronics And Communication Engineering	48	HSc or Equivalent	English	180	170
UG	BE,Mechanical Engineering	48	HSc or Equivalent	English	120	25
UG	BTech,Bio Technology	48	HSc or Equivalent	English	60	48
UG	BTech,Chemical Engineering	48	HSc or Equivalent	English	60	21
UG	BTech,Information Technology	48	HSc or Equivalent	English	60	59
PG	ME,Civil Engineering	24	BE or BTech in relevant discipline as specified byTANCA	English	18	18
PG	ME,Computer Science Engineering	24	BE or BTech in relevant discipline as specified byTANCA	English	12	0
PG	ME,Electrical And Electronics Engineering	24	BE or BTech in relevant discipline as specified byTANCA	English	18	0
PG	ME,Electronics And Communication Engineering	24	BE or BTech in relevant discipline as specified byTANCA	English	12	2
PG	ME,Mechanical Engineering	24	BE or BTech in relevant discipline as specified byTANCA	English	9	5
PG	MBA,Master Of Business Administration	24	Any Degree	English	120	120
PG	MBA,Master Of Business Administration Part Time	36	Any Degree	English	60	34
PG	MCA,Master Of Computer Application	24	Any Degree with Maths or Statistics	English	60	60
Doctoral (Ph.D)	PhD or DPhil,Computer Science Engineering	36	ME or MTech in relevant discipline	English	20	5
Doctoral (Ph.D)	PhD or DPhil,Electronics And Communication Engineering	36	ME or MTech in relevant discipline	English	20	15

Doctoral (Ph.D)	PhD or DPhil,Mechanical Engineering	36	ME or MTech in relevant discipline	English	36	4
Doctoral (Ph.D)	PhD or DPhil,Chemistry	36	MSc in relevant discipline	English	18	2
Doctoral (Ph.D)	PhD or DPhil,Physics	36	MSc in relevant discipline	English	13	5

### Position Details of Faculty & Staff in the College

#### Teaching Faculty

	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	35				47				245			
Recruited	23	12	0	35	34	13	0	47	126	119	0	245
Yet to Recruit	0				0				0			

#### Non-Teaching Staff

	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				213
Recruited	143	70	0	213
Yet to Recruit				0

#### Technical Staff

	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				27
Recruited	25	2	0	27
Yet to Recruit				0

## Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	18	11	0	20	7	0	3	3	0	62
M.Phil.	0	0	0	2	0	0	22	17	0	41
PG	4	1	0	12	6	0	98	87	0	208
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
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	0	0	0	0
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

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
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	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	1	2	0	3
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?		Male	Female	Others
		8	6	0
				Total
				14

Provide the Following Details of Students Enrolled in the College During the Current Academic Year						
Program		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	2048	64	0	0	2112
	Female	899	14	0	0	913
	Others	0	0	0	0	0
PG	Male	309	2	0	0	311
	Female	194	3	0	0	197
	Others	0	0	0	0	0

Doctoral (Ph.D)	Male	13	0	0	0	13
	Female	18	0	0	0	18
	Others	0	0	0	0	0

**Provide the Following Details of Students admitted to the College During the last four Academic Years**

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	201	215	263	348
	Female	104	107	130	148
	Others	0	0	0	0
ST	Male	1	1	2	2
	Female	0	0	1	2
	Others	0	0	0	0
OBC	Male	1993	2325	2785	3231
	Female	833	926	1061	1182
	Others	0	0	0	0
General	Male	258	265	293	321
	Female	158	183	218	228
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		3548	4022	4753	5462

**Provide the Following Details**

Number of Programs	UG programs not covered under the Autonomous status of UGC	PG programs not covered under the Autonomous status of UGC	Professional Programs offered	Self-financed Programs offered	New Programs introduced during the last five years
	0	0	0	19	0

**EVALUATIVE REPORT OF THE DEPARTMENTS**

Department Name	Upload Report
Master Of Business Administration	<a href="#">View Document</a>
Bio Medical Engineering	<a href="#">View Document</a>
Electrical And Electronics Engineering	<a href="#">View Document</a>
Master Of Computer Application	<a href="#">View Document</a>
Bio Technology	<a href="#">View Document</a>
Aeronautical Engineering	<a href="#">View Document</a>
Information Technology	<a href="#">View Document</a>

Physics	<a href="#">View Document</a>
Chemistry	<a href="#">View Document</a>
Chemical Engineering	<a href="#">View Document</a>
Architecture	<a href="#">View Document</a>
Mechanical Engineering	<a href="#">View Document</a>
Electronics And Communication Engineering	<a href="#">View Document</a>
Civil Engineering	<a href="#">View Document</a>
Master Of Business Administration Part Time	<a href="#">View Document</a>
Computer Science Engineering	<a href="#">View Document</a>

Institutional preparedness for NEP	
1. Multidisciplinary/interdisciplinary:	<p>The College is preparing itself to have more of multi-disciplinary subjects apart from those that are being offered at present, in both, Engineering and Management domains. The same would also incorporate the tenants of Programme Learning Outcomes (PLOs) along with Programme, Course and Unit Learning Outcomes (POs and Cos) that define the specific knowledge, skills, attitudes and values that are expected to be acquired by the learners, and the institution will ensure that the Assurance of Learning (AOL) as envisaged under the Policy would be ensured. The courses of all the programmes have already been categorized into Humanities and Social Sciences (HS), Basic Sciences (BS), Basic Engineering Sciences (ES), Professional Core (PC) and Cluster Courses, Professional Electives (PE), Open Electives (OE) and Project Work. Minor Specializations are already being offered in the domains of <input type="checkbox"/> Artificial Intelligence (AI) <input type="checkbox"/> Internet of Things (IoT) <input type="checkbox"/> Block Chain <input type="checkbox"/> Robotics <input type="checkbox"/> Quantum Computing <input type="checkbox"/> Data Sciences <input type="checkbox"/> Cyber Security <input type="checkbox"/> 3D Printing and Design <input type="checkbox"/> Virtual /Augmented Reality (VR/AR)</p> <p>Keeping in view the problems faced by the students, the college is planning to set up short term and value added courses from the II semester onwards. The aim is to make the students equipped, so that they don't need to rely on Government jobs but instead pave a way towards entrepreneurship and self-employment. In addition, many Open Electives shall be made available to the learners to encourage them to develop an interdisciplinary approach and culture.</p>
2. Academic bank of credits (ABC):	<p>Regarding the implementation of Academic Bank of Credits, the institution has to wait for the approval and instructions from the Statutory Regulatory Bodies (Anna University/AICTE/State Government ). The pedagogical approach of the institution is already student-centric where the faculty has adopted pedagogical approaches which</p>



	are constructivistic, inquiry-based, reflective, collaborative and integrative. To facilitate the transfer of credits into the Academic Bank of Credits, data capturing of credits as acquired by individual students, every semester, required components have already been incorporated in the institution's ERP software.
3. Skill development:	The vision of the college is promoting Value-Based Quality Education; hence the college takes all efforts to inculcate positivity among the learners. Mentor-Mentee system is one of the best practices of the institution, to enable students to explore future employment pathways after graduation, and help them to get the most of their studies from the institution. Courses are introduced from I semester onwards in order to enhance the soft and hard skills of the students (eg. English Laboratory) Hard skills are enhanced with the incorporation of more number of one-credit courses, value added courses and internships. Successful Participation of students in DST- Nidhi Prayas Scheme leads the students to become entrepreneurs. Introduction of vocational courses as value added courses to enhance their skill development.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	Regarding the adoption of Indian languages, the college offers audit courses in Regional language (Scientific Tamil, Heritage Tamil etc.) Universal Human Value/ Transferable life skill based Value added Courses offered from I to VII Semesters. In addition, Indian Constitution, Environmental Science and Sustainability courses are offered as Mandatory Courses. A course on "Gender Equity" has been introduced in all programmes as Audit courses.
5. Focus on Outcome based education (OBE):	Institution has made an honest effort to understand that a pursuit of knowledge is a life-long activity and to acquire positive attitude and other qualities which will lead students to a successful life. To interpret, analyze, evaluate and develop responsibility and effective citizenship is one of the Programme outcomes of the students. ACE introduced Outcome Based Education (OBE)/Choice Based Credit System (CBCS) in 2015, which emphasizes on honing the skills and knowledge of the graduates and Summative and Formative assessments and assignments used to evaluate the Students' Learning Outcomes (SLOs). Programme Educational Objectives (PEO), Programme Outcomes (POs – also known as Graduate Attributes), Programme Specific Outcomes (PSO) are framed in line with NEP 2020. The course outcomes (CO's) are designed to align with the Programme Outcomes (PO's) and Programme Educational Objectives (PEO's). Accordingly, every student learns to demonstrate

	skills and attitude with concepts at the end of every course.
6. Distance education/online education:	As an Autonomous Institution under the Anna University, as at present, ACE is not eligible to offer courses in distance education and online education modes. Once mandated, up to 40% of the courses shall be planned to be offered under these modes and/or in hybrid modes. ACE encourages its students and faculty members to register for online courses offered by NPTEL, SWAYAM, Course Era, Unacademy etc., platforms and provides credit equivalence to the students and suitably efforts of the faculty members as evidenced from their performance appraisal system.

<b>Institutional Initiatives for Electoral Literacy</b>	
1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Electoral Literacy Club is systematised in Adhiyamaan College of Engineering (Autonomous) (ACE) with the prime objective of yielding awareness to the student community about democratic rights. ACE encourages students to practically experience the democratic set up through mock polling activities. It also conducts poster presentations, debates, mock parliaments, elocution, essay writing and other programs which create awareness regarding electoral procedures.
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?	The Institution has the ELC functional with the following office bearers Prof. I. Ingobabu - Professor - Chemistry - Nodal Officer Prof. P. Rajendiran - Professor - Mathematics - Member Mr. P. Sakthivendan - Professor - English - Member Dr. D. Ubagaramary - Professor - Chemistry - Member Mr. P. Gurusamy - Professor-EIE - Member
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.	Activities done by the ELC of ACE. 1. Our students participate in Voter Awareness Campaigns aimed in educating the public in the nearby villages. 2. Voter awareness guest lectures and workshops conducted for in-house faculty and students. 3. Voter Registration camp for the eligible students in the campus.
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.	Initiatives of ACE in electoral related issues 1. ACE encourages and supports the target audience understand the value of their vote to ensure that they exercise their suffrage right in a confident, comfortable and ethical manner 2. ACE identifies and develops a culture of electoral participation and maximize the informed and ethical voting and

	follow the principle 'Every Vote Counts' and 'No Voter to be Left Behind'.
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	The students above 18 years who are to be enrolled as voters are identified and sensitized about democratic rights which include casting votes in elections. We conduct mock polling activity to give the experience-based learning of the democratic setup. We also conduct poster presentation, debates, mock parliaments, elocution, essay writing and other programmes which create an awareness regarding electoral procedures.

## QIF

### 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.***

**Answer:**

- **Adhiyamaan College of Engineering (ACE)** offers curricula which provide Quality-Skills cum Value-Based Education with unique learning objectives in relevance to the local/regional/national/global developmental needs.
- The curricula are framed to achieve career and professional accomplishments throughout the graduation/postgraduation by nurturing knowledge acquisition, skills and attitude through the Program Educational Objectives (PEOs) in compliance with PSOs, POs, Vision and Mission of the Department/Institution.
- The curricula with Choice-Based Credit System (CBCS) focus on Outcome-Based Education (OBE) by enhancing skill development and incorporate different aspects of creativity and achievement and excellence in entrepreneurship with innovative ideas in accordance with the Course Outcomes (COs) of all courses.
- The Curricula are designed and developed as per the guidelines of UGC, AICTE, NBA and Anna University along-with the Committee of the institution, stakeholders and professional bodies.
- The Board of Studies (BoS) meeting is conducted twice every academic year. BoS monitors and reviews the existing program structure and course syllabi, update pedagogies based on the feedback of stakeholders and regular updating of curricula according to the industrial trends, socio-economic and environmental needs.
- The feedback is collected from stakeholders (Students, Faculty, Employers, Industry, Parents and Professional Bodies) and BoS-related workshop is conducted involving entire faculty at department level to place their suggestions and recommendations to incorporate need-based changes/modifications in the curricula.
- Subsequently, the BoS approves the curriculum and the same is presented to the Academic Council for its consideration and final approval, with or without modification. It is then submitted in Governing Council for further sequence of action.
- Students can choose professional electives in monopoly stream or inter-disciplinary stream, open electives from multi-disciplinary streams as offered by other departments.
- Online courses from NPTEL platforms are recommended. Value-Added Courses are offered in every department according to students' interests and inclinations. Further, the college provides Fast Track courses for undergraduate students to undergo VIII semester courses in lieu of project work in VI & VII semesters provided they do not have standing arrears up to the IV Semester.
- The curricula offer inter-disciplinary, multi-disciplinary, industry-oriented aspects which engage the students in designing, manufacturing, operating/testing and maintaining systems as desired in the industries with relevance to local and regional needs to become talented in relevant areas.

- In order to encourage rural and urban entrepreneurship, the well-designed curricula provide management courses such as Human Resource Management, Industrial Management in relevance to regional needs, which address the outcomes of problem identification, analysing, data collection and coming out with solutions.
- The curricula provide Value-Based Educational courses such as Life Skills and Soft Skills development, Gender-based Courses for empowering Women in Society and work Environment, Indian Constitution for the national developmental needs such as Digital India, Smart Cities and such others.
- The college has signed MoUs with industries to offer Industrial Visits, In-Plant Training and Internships/Projects to conduct collaborative research which provide first step exposure for global developmental needs to compete with different comparable talents across the world.
- On comparing with R-2015 and R-2018 Curricula, value-added courses, more open electives are newly introduced and implemented with relevance to the local, national, regional and global developmental needs.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.**

**Answer:** 100

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

**Answer:** 22

**1.1.2.2 How many Programmes were revised out of total number of Programmes offered during the last five years**

**Answer:** 22

File Description	Document
Minutes of relevant Academic Council/BOS meeting	<a href="#">View Document</a>
Details of program syllabus revision in last 5 years(Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years**

**Answer:** 72.43

**1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
512	625	695	632	458

File Description	Document
Programme / Curriculum/ Syllabus of the courses	<a href="#">View Document</a>
MoU's with relevant organizations for these courses, if any	<a href="#">View Document</a>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	<a href="#">View Document</a>
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 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.**

Answer: 23.94

1.2.1.1 How many new courses are introduced within the last five years

Answer: 473

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

Answer: 1976

File Description	Document
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**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).**

Answer: 100

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

Answer: 18

File Description	Document
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 1.3 Curriculum Enrichment

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

#### **Answer:**

ACE has integrated cross-cutting issues relevant to Professional Ethics, Gender, Human Values and Environment & Sustainability in the curricula, with particular reference to the UN SDGs of 2020, as hereunder:

#### **Professional Ethics and Human Values**

Focused courses sensitise and address the issues of right attitudes/etiquettes and value-based ethical behaviour for practice in personal lives and professional work. Ethics & Human Values Course is offered for becoming a successful professional with standard ethical, moral duties and virtues in an organization, time, knowledge and resource management. Human Values are instilled in the students to practice as part of their personal and professional life by identifying their goals, developing a holistic perspective about life, fortifying self-reflection, resolving conflicts, maintaining healthy relationships with family and friends and accepting societal responsibilities by enriching their thoughts and relationship with nature, and towards sustainable development. The Principles of Management course helps students to realize the major functions of management such as planning, organizing, leading, and importance of Team work and relationship for amicable work culture in work environment. Intellectual Property Rights course provides knowledge to help students to protect their valuable ideas and development in the larger interests of society. Total Quality Management course focuses on the basic roles, skills and functions of management, with special attention to managerial responsibilities for effective and efficient setting and achievement of goals.

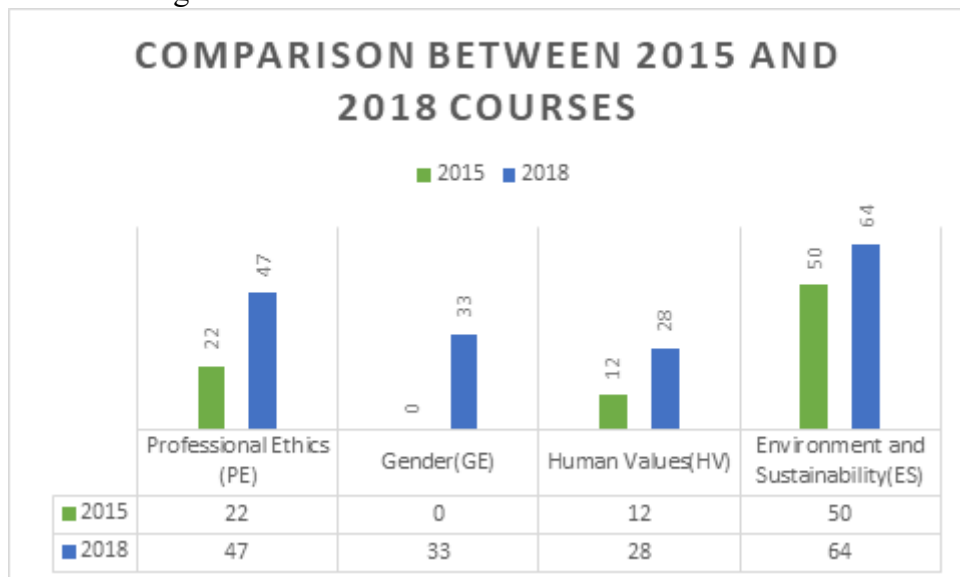
#### **Gender**

Gender-based courses are offered to address the societal and cultural issues related to Gender. Introduction to Women & Gender Studies course describes the gender impact on lives and equitable opportunities given for men and women, job creation and development. It also emphasizes the challenges faced in life, culture and socio-economic rights and responsibilities, to promote mutual respect, self-confidence, urban and rural entrepreneurship and women empowerment.

#### **Environment and Sustainability**

Courses related to public health, safety and environmental issues are given major importance. Environmental Science and Engineering course provides an integrated view of environment and natural resource issues and creates moral practices to protect our planet Earth. Disaster Management course creates an awareness for disaster-resistant community in all hierarchical levels. Industrial Safety course provides different techniques for risk management, safety management, improving general safety measures and health of employees as well as organization and environment. Waste to Energy course leads the path for energy from garbage by utilizing various techniques of waste management and use of waste as an alternate source of energy. Additionally, the Green Electronics course summarizes the knowledge on the theories, eco-design concepts and methods for a range of sustainable green electronic products on par with

national and global standards.



The above chart shows Incremental comparison between Cycle-II and Cycle-III A/A

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	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Answer: 65**

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

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
21	08	13	11	12

File Description	Document
List of value added courses (Data Template)	<a href="#">View Document</a>
Brochure or any other document relating to value added courses	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Answer: 34.13**

**1.3.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
1521	1121	1698	1398	2102

File Description	Document
List of students enrolled	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

Answer: 33.08

**1.3.4.1 Number of students undertaking field projects / internships / student projects**

Answer: 1139

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**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**

Answer: A. All 4 of the above

File Description	Document
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	<a href="#">View Document</a>
URL for stakeholder feedback report	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

**1.4.2 The feedback system of the Institution comprises of the following :**

Answer: A. Feedback collected, analysed and action taken and report made available on website

File Description	Document
Any additional information	<a href="#">View Document</a>
URL for stakeholder feedback report	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>



## 2. Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average Enrolment percentage (Average of last five years)

Answer: 53.51

##### 2.1.1.1 Number of students admitted year-wise during last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
877	717	889	886	1309

##### 2.1.1.2 Number of sanctioned seats year wise during last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
1353	1413	1860	1920	2256

File Description	Document
Institutional data in prescribed format (Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

#### 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 ( exclusive of supernumerary seats)

Answer: 69.65

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
760	657	809	779	1211

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 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

Answer:

**ACE** admits students through (i) Affiliated University (Anna University) counselling based on cut-off marks and (ii) Admission based on a Merit list prepared by the Consortium of Self-Financing Engineering Colleges. As a result, the admitted students have a range of learning styles and abilities. Accordingly, several measures are taken in addressing the needs of students at varied competence levels.

Systematic student assessment and remedial measures are followed for needy students, wherefore substantial autonomy is allowed to the departments to provide options for aiding slow and advanced learners, from induction up-to programme culmination.

Annually, the institution conducts induction/orientation programmes and give fresher's an opportunity to express themselves, wherein the students acquaint themselves with the institution, its activities, facilities, rules and regulations and code of conduct.

### **A. Process of Identification of slow and advanced learners**

All students of a particular batch are assessed on following parameters:

- Previous University Exam Results
- Performance in I Cycle Unit Tests
- Attendance and Attentiveness
- Assignments and tutorial

### **B. Tutor-Ward System**

ACE has a robust Tutor-ward system. Every year, an orientation session is held to emphasise to the new faculty members the value of mentoring. Each faculty member serving as mentor hereafter referred as tutor will be assigned 10-20 students.

The tutor identifies the slow and advanced learners by analysing each student's performance and discussing the results with the department head.

- The slow learners receive due attention with a focus on identifying and nurturing their skills and talents to boost their confidence.
- The advanced learners are motivated to improve their core competencies further.

Every faculty member is a responsible tutor and maintains the following records:

- Student Information record (Profile Book of each student)
- Academic Performance Statement (Marks obtained at the Internal Assessment and University Exams)
- Identification and enlisting of slow and advanced learners of each batch.
- Remedial measures adopted in support (circulars and notices)
- Records of activities designed for both cohorts of learners

### **C. Initiatives of Support For Advanced and Slow Learners**

#### **(i) Advanced Learners:**

The following advanced/special activities are conducted for Advanced Learners:

- Bright and diligent students are motivated to work hard and get ranks.
- Semester toppers and rank holders are honoured with certificates and cash prizes.
- Encouraged to participate in various inter-institution competitive events viz., symposia, conferences, quizzes, poster/paper presentations and such others.
- Guiding and encouraging them to publish/present research papers in Conferences/Journals
- Exposing them to additional courses through NPTEL, SWAYAM, etc.,
- Guiding for career planning

- Mentored to participate in Hackathons, Ideathons and funded Project like TNSCST, NITHI PRAYAS, etc.,

## (ii) Slow Learners:

The following support is provided for slow Learners:

- Regular Remedial classes and Retest
- Special Coaching classes and Counseling along with parents
- Previous year Question papers and Question Banks for all subjects are circulated
- Students are given repeated practice on solving important questions.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)

**Answer:** 10.1

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 2.3 Teaching- Learning Process

**2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences**

**Answer:**

**ACE** is very sensitive in providing innovative student-centric Teaching-learning methods for enriching the learning experience of students. The methodologies include demonstrations and special lectures, field studies, case-studies, Project-Based Learning (PBL), hands-on experiential experiences which are applicable in their careers.

### Experiential Learning:

Throughout the experiential learning process, the learner is actively engaged in posing questions, investigating, experimenting, problem-solving, being creative and innovative.

- Students imbibe the experiential learning partly through the curriculum itself via diverse practical sessions in the State of the Art laboratories
- Our Institution has established industry-linked laboratories with WIPRO to train the students in workplace-required and emerging technologies.
- Field visits and In-plant trainings are organized to acquaint the students with industry standards and work ethics.
- Industry-based projects are carried out by the students to acquire awareness about the latest practices adopted in industries, for solving technical problems.

### Participative Learning:

- Our Institution has established e-learning facilities and resources like *SWAYAM*, *NPTEL*, e-books and e-journals, and digital library resources to improve their creative thinking in technical and research areas.

- Our Institution promotes creativity and critical thinking among students through active participation in quizzes, webinars and project competitions.
- Blended learning, peer-to-peer learning, Role-play and brainstorming are practiced for learning the concepts in an easy way and enhance participative learning.
- Our academic time table includes technical seminar hours to enrich students in presenting the concepts which allow them to think broadly and come up with their own opinions & suggestions in finding better solutions.
- Participation in professional societal activities of *IE(I)*, *IEEE*, *ISTE*, *CSI*, *IETE*, *IIChe*, etc are made mandatory to involve in various co-curricular activities and outreach programs organized in collaboration with the department
- Placement training through *SKILLRACK* assessment and *NASSCOM* ensure that the students are adequately trained in domain-related tools, technologies and soft skills.
- Our institution has collaboration with Global technology companies like *Microsoft*, *Oracle*, *EMC* and *Autodesk* through *ICT Academy* to train our students on various cutting-edge technologies

### Problem-solving Methodologies:

- Assignments in Higher Order Thinking Skills (HOTS) are given to the students to break down ideas into simpler units and find evidence to support self-learning abilities.
- Tutorial classes are conducted for analytical courses for improving their problem-solving abilities.
- Case studies method is commonly adopted in management Programmes to make the students have logical thinking and practical knowledge to develop problem solving ability.
- Aptitude training classes are conducted to improve the aptitude skills of students by providing unique and feasible shortcut techniques which improve the speed and accuracy in solving the problems within a stipulated time
- A pedagogical approach of involving students of different cognitive levels was made to learn in a collaborative manner, in mini projects as well as major projects to accomplish an assigned task
- Students are encouraged to find out the solutions for real-time problems via case studies, hackathons and field/industrial projects.
- Students are encouraged through *NIDHI PRAYAS*, a Pre-incubative initiative to convert their ideas to Prototypes

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

#### Answer:

- **ACE** is effectively using ICT tools in the classroom for easy understanding of the concepts and effective demonstration of laboratory-based courses. The institution has all the required resources for ICT based teaching and learning processes.
- The **faculty are trained** in “How to use the ICT tools effectively” through workshops conducted at the institutional level. The teaching-learning practices include the ICT tools for lecture classes, illustration, and demonstration, case studies, project-based learning, etc.
- In our institute, most of the classrooms and labs are equipped with **LCD projectors**. Faculty are encouraged to use Projectors to deliver their lecture using PowerPoint presentations, and demonstrations, and to use online resources in the classroom.
- The institution has adequate Desktops and Laptops in the laboratory and classrooms which are connected through LAN / VLAN network. All the computers have internet connection so that the faculty can use online resources for their teaching.

- Sufficient printers are there in the laboratory for students to take their laboratory exercise printouts. The HoDs and faculty have multifunction printers in their cabin for printing class notes, study materials for students and assignments question papers, etc. Each department has ICT enabled meeting room to conduct meeting with faculties.
- Teachers are using **Google's digital classroom** to post assignments, case studies, and study materials to students. ICT tools like **Google Meet, Zoom and MS Teams** are used for online classes during a pandemic.
- Faculty are using online tools like **online compiler, Google colab, tinkercad**, etc. for **simulation / Virtual Lab**. Seminar halls and conference rooms are equipped with ICT tools to organize different seminars, workshops, and guest lectures. **Google Forms** are used by the faculty to conduct an online quizzes.
- The students and faculties are encouraged to develop their programming skills using online coding platforms like **HackerRank, Techgig**, etc. ICT enabled teaching-learning is supported in addition to regular classes like accessing the digital library, and **self-learning** through online courses like **MOOCs, NPTEL, Udemy**, etc.
- Communication skills training facility has been given to students with the help of ICT tools to make the students proficient in listening, speaking, reading, and writing.
- ICT enabled digital library has **OPAC** software which allows the students to search the availability of books, reserve books, etc. The library is equipped with a wi-fi facility. The question bank digital repository is available for students to refer to the previous year's question papers.
- Different **WhatsApp groups** have been created and effectively used among teachers and students to share internal circulars, study materials, News and events, and inter / intra-college competition notifications.
- All the students have given **domain mail id** (adhiyamaan.in) for accessing the e-content and attending online classes and examinations. **ERP portal** for students are in practice to access student information, attendance, mark details, and course materials.
- The institute has a **website** (www.adhiyamaan.ac.in) that provides all the details related to the course, internal circulars, News and Events, End semester results, course e-contents in PowerPoint and videos, etc.

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Answer:** 15.37

#### 2.3.3.1 Number of mentors

मार्गदर्शकानां सङ्ख्या

**Answer:** 224

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	<a href="#">View Document</a>
Circulars pertaining to assigning mentors to mentees	<a href="#">View Document</a>

### ***2.3.4 Preparation and adherence of Academic Calendar and Teaching plans by the institution***

**Answer:**

#### **A. Preparation of Academic Calendar:**

ACE, being an Autonomous institution, follows the guidelines notified by Anna University, Chennai and Government of Tamilnadu while preparing the Academic Calendar. Academic calendar for each and every upcoming semester is prepared by the Dean, Academic Affairs, and approved by the Principal at least one week before the commencement of the scheduled classes for that semester. This provides the important academic planning details such as date of commencement of classes of the academic session, duration of semester, commencement of continuous assessments, last working day, last date for submission of attendance, last date for submission of continuous assessment marks, commencement of practical and semester end examinations and date of reopening of the following semester. The academic calendar also highlights the total number of working days, government and local holidays. Seminars, conferences, workshops, guest lecturers etc, are arranged according to the academic calendar to improve the quality of teaching-learning process. The approved academic calendar is circulated to faculty members and students through the respective heads of departments before the start of semester classes by displaying on the department notice board and also made available on the institution's website which ensures the clarity for the follow up.

#### **B. Adherence to academic calendar:**

##### **1. Teaching Plan:**

- Subject allotment of upcoming semester is prepared by the respective heads of departments based on faculty's specialization and the same is communicated to the individual faculty of that department.
- The timetable is planned for six days of the week. First five days consist of 7 periods of 55 minutes duration each and the sixth day consists of 4 periods of 55 minutes duration.
- The time table incorporates periods for continuous assessment tests, regular theory and laboratory classes, project hours, tutorial classes etc.
- The timetable for end semester theory and practical examinations are prepared by Controller of Examinations and communicated to each department for display on the notice boards

##### **2. Lesson Plan:**

- The Lesson plan is prepared by entire faculties before the commencement of every semester and approved by the head of the department. According to the lesson plan, topics covered for each hour are recorded in the log book which included attendance of student and continuous assessment marks, to ensure coverage of syllabus which is monitored by the heads of department and Principal.
- A Programme Assessment Committee is formed comprising of the entire faculty handling the course, with the experienced faculty as course coordinator which meets once in a semester to prepare the lesson plan, decides the portions of syllabus for the internal tests, assignment patterns and periodically reviews the attainment of course outcomes.
- Class committee meeting is conducted for interaction between representative students and faculty members handling the classes which is held twice in a semester, feedback is obtained on syllabus coverage, content delivery, assessment and evaluation, completion of record works for the practical classes, counselling the slow learners and motivates the advance learners for further development.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 2.4 Teacher Profile and Quality

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

Answer: 96.78

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Answer: 18.92

#### 2.4.2.1 Number 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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
65	65	68	63	78

File Description	Document
Institutional data in prescribed format (Data Template)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 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)

Answer: 7.84

#### 2.4.3.1 Total experience of full-time teachers

Answer: 2672

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 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

**Answer: 17.6**

**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**

Answer:

2021-22    2020-21    2019-20    2018-19    2017-18  
20            22            17            15            14

File Description	Document
Institutional data in prescribed format (Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Answer: 2.02**

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

Answer:

2021-22    2020-21    2019-20    2018-19    2017-18  
125        0            164        145        06

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

**2.5.3 IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution**

**Answer:**

The conduct of examinations and declaration of results are important activities of at ACE as an Autonomous Institution.

The Controller of Examination's (CoE) Office is the backbone of planning, implementing and monitoring the examination system. Examination-related activities start with course registration which leads to estimate the total number of subjects with subject-wise student strength. Modified Bloom's taxonomy guidelines are followed in question paper setting to maintain the quality and standards.

A team of board of examiners are invited from the neighboring zones and states to scrutinize the question papers before their usage.

**Software details**

Controller of Examination office activities are automated using a licensed EMS software INSPRO-PLUS ERP 6.6 supplied by M/s. Palpap Ichinichi software International Ltd, Chennai. This facilitates for automation of entire process of examinations from generation of examination applications and Hall tickets



with photo, galley and attendance sheets, result processing, seating arrangement, TMR preparation and grade sheet generation.

### **Introduction of examination fee payment online mode**

From AY 2019-20 onwards examination fee and other fee payment made online.

### **Introduction of coding and decoding process**

For confidential and fast processing of results all semester end theory examination of answer scripts are jumbled and dummy numbered using EMS Software

### **Central valuation**

After the semester end examinations, answers scripts are bundled and dummy numbers are assigned and evaluated by both internal and external examiners lead by chief examiner under central valuation scheme.

### **Continuous Internal Assessment**

Continuous assessment process is fully automated using the periodically updated subject-wise question bank. OMR sheets are used to assess CA marks to minimize errors and to ensure accuracy.

### **Students seating arrangement**

Day to Day seating arrangement for semester end examinations is done using software from AY 2016-17 onwards.

### **Results publication and SMS sent to parents**

Result Passing Board convened to approve the semester results and will be uploaded to institute's website and parents are intimated through SMS from the AY 2017-18 onwards

### **Revaluation**

Any student who is not satisfied with the valuation and results published, may apply for revaluation based on COE office notification. The revaluation of answer scripts will be revealed by the CoE to the external evaluators as per the guidelines provided by the university. Revaluation for practical examination subjects is not permitted. Provision of photocopy of answer scripts to the desiring students is also made available.

### **Online examination**

Semester end examinations were conducted in online mode for 2 hours duration during COVID pandemic period using "Cocubes" platform hired from Aons consultancy, Gurugram and all continuous assessment examinations are also conducted in online mode.

For the smooth completion of evaluation process, different Committees like Examination Committee, Board of Examinations Committee, Disciplinary Committee and Students Grievance Committee are in operation. Meetings with all the faculty heads are organized before the start of examinations for solving the examination and academic hurdles (if any) and inviting their valuable suggestions.

### **Procedure and process at the Office of Controller of Examinations**

For the smooth conduct of examinations, different Committees like Examination Committee, Board of Examinations Committee, Disciplinary Committee and Students Grievance Committee are in operation. Meetings with all the faculty heads are organized before the start of examinations for solving the examination and academic hurdles (if any) and inviting their valuable suggestions.

Generally two months ahead of scheduled examination season, question papers setting process starts using the approved list of examiners recommended by BoS and Academic Council.

A student who is not satisfied with the valuation and results published, may apply for revaluation in the prescribed form based on COE office notification. The revaluation of answer scripts will be revealed by the CoE to the external evaluators as per the guidelines provided by the university. Revaluation for practical examination subjects is not permitted. Provision of photocopy of answer scripts to the desiring students is also available after the payment of the stipulated fee.

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

## 2.6 Student Performance and Learning Outcomes

***2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.***

### Answer:

Program outcomes (PO) are the knowledge, skills, and abilities students should possess when they graduate from a program equivalent to Graduate Attribute. The teaching learning process effectiveness can be measured through CO-PO attainment

Course Outcomes (COs) are direct statements that describe the essential and enduring disciplinary knowledge, abilities that students are expected to possess upon the completion of a course. It gives the resultant knowledge and skills the student acquires at the end of each course. Course Outcomes are framed by course coordinator along with the Program Coordinator based on Revised Blooms Taxonomy which includes various levels: Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. Course Outcomes for all courses in the program are discussed in Departmental Advisory Board and finally approved in Board of Studies meeting.

The importance of the Program outcomes and Program Specific Outcome and Course Outcome has been communicated to the teachers in every IQAC Meeting and Faculty Meeting.

The Program Outcomes and Course Outcomes for all programmes are published in the College Website: <http://www.adhiyamaan.ac.in>

The Program Outcomes and Course Outcomes are printed and displayed in the

- HOD Chamber
- Faculty Chamber
- Department Notice Board
- Class Room Notice Board
- Laboratories
- Department Library
- Students are educated by the course teacher with the outcomes of each course before the commencement of the course. Lesson plan with COs are printed and issued to the students during the first class. PO, CO are included in Curriculum, lab manuals. Students are educated in Student Awareness Workshops and Student Orientation Program

It is also communicated to the External **Stakeholders** of the program in different meetings held in the department like

- Parent Teachers Meetings
- Alumni Meetings
- Industry Advisory Board Meetings

File Description	Document
Upload COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

#### Answer:

Program Outcomes (POs) are broad statements that describe the professional accomplishments which the program aims at. These are to be attained by the students by the time they complete the program. Course Outcomes (COs) are narrower statements that describe what students are expected and be able to do at the end of each course.

The process for finding the attainment COs uses various tools/methods. These methods are classified into two types:

- **Direct.** Direct methods display the student's knowledge and skills from their performance in Continuous assessment tests, Assignments, Semester End Examinations, Practical's & projects.
- **Indirect methods** include course exit survey, Alumni feedback & Employer feedback to reflect on students' learning. They are used to assess opinions or thoughts about the graduate's knowledge or skills.

The following table shows the various methods used in assessment process that periodically documents and demonstrates the degree to which the COs are attained.

#### Direct Assessment methods are formative as well as summative

Continuous Assessment	Performance assessment is carried out twice a week through three unit tests for a course in every semester. The tests are focused on attaining the course outcomes and to assess the students' knowledge and their understand ability.
Assignment	The assignment is a qualitative performance assessment tool designed to assess students' knowledge of engineering practices and problem solving. Two assignments are given for every course.
Model Examination	Model theory examination is conducted prior to the Semester End Examination. This helps the students to prepare and be ready to face Semester End Examination.
Practical Examinations	Model practical is conducted prior to the practical examination. This helps the students assess their practical knowledge.
Project Review	For projects, reviews are conducted in the scheduled interval to monitor the progress of students. This helps the students develop their communication, team management skills and also aids in improving their domain knowledge.

#### Indirect Assessment Methods are formative as well as summative

Exit Survey	Exit Survey is an assessment tool prepared to evaluate the Program Outcomes (PO) by the students who are graduating in the current academic year.
-------------	---

#### Process of Evaluating COs

Step 1:	Set the Attainment Level to evaluate COs (Level 1=60%, Level 2=70%, and Level 3=80%)
Step 2:	Measure Course Outcomes attained through Continuous Assessment (CA) and Semester End Examinations (SEE).

Step 3:	CA will be evaluated by question level assessment of the tests and assignments and in accordance to the respective course outcomes.
Step 4:	The students attaining pass percentage in SEE is considered for CO attainment.
Step 5:	Target is set with respect to attainment level (50%): Low i.e 1 Attainment Level (60%) : Moderate i.e. 2 Attainment Level (70%) : Substantial i.e. 3

### The process Evaluating POs and PSOs

Step 1:	PEOs are defined in-line with NBA defined POs.
Step 2:	Map all the programme courses with POs and PSOs
Step 3:	Set the Target Attainment Level for POs (Level 1=50%, Level 2=60%, and Level 3=70%).
Step 4:	Direct Assessment of 80% is calculated through Continuous Assessment (Unit Tests, Assignment, Model Practical, and Viva Voce) and Semester End Examinations
Step 5:	Indirect Assessment of 20% is calculated through Exit Surveys collected from outgoing students.
Step 6	80% of Direct Assessment and 20% of Indirect Assessment give the PO Attainment. If the set target is not achieved, action plans will be taken to improve the PO attainment.

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

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

**Answer:** 97.56

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

**Answer:** 921

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

**Answer:** 944

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	<a href="#">View Document</a>
Link for the annual report	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### 2.7 Student Satisfaction Survey

### 2.7.1 Online student satisfaction survey regarding teaching learning process

Answer: 3.66

File Description	Document
Upload database of all currently enrolled students	<a href="#">View Document</a>
Link for any additional information	<a href="#">View Document</a>

### 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**

Answer:

Yes, ACE has well-defined Research promotion policy and it is updated in Institutional Website and is deployed, in letter and spirit.

**“Nurture Trumps the Nature”, as far the Innovation goes, is a motto of ACE.**

Around INR 911.67 Lakhs is spent on the purchase of Research facilities since 2017 and is around 50% more than that during preceding five years. Research Facility is extended for the under graduate student innovators as well, besides Post Graduate students, Research Scholars, Faculty and for consultancy works. As a Hallmark of the Innovative Product Development, Research activities and Consultancy activities of the Institution, Institution is recognized as Scientific Industrial Research Organization (SIRO) by DSIR, GoI.

Research Policy aims to enhance research activities in ACE, bring-in more faculty members into research group by incentivizing research related activities—travel, availing on-duty, publications, workload compensation and visiting reputed research laboratories.

In order to facilitate the research activities, Research Advisory Committee (RAC) is established in 2011, (comprising of senior Principal Investigator's along with Dean-Research, The Principal and Financial expert) has been guiding the execution activities of research projects in consonance with statutory requirements. RAC normally meets once in a semester or on Need basis, last meet held on 12-08-2022.

Research Facility	Activities	Year of Establishment	Year of Upgrading	Total Cost (Lakh)
Research Center / Laboratories	Facilitation of Research & Consultancy	2011	2022	211.67
DETI-ACE@TBI	Incubation & Entrepreneurship	2011	2022	984.50
MSME Regional Host Institute	Start-Up & Incubation	2022	--	56
Institution's Innovation Council (IIC)	Innovation & Entrepreneurship	2022	--	--
IPR Cell	IP awareness & IP Filing	2011	--	--
Industry Institute Partnership Cell (IIPC)	Industry Inputs for Research Innovation and Consultancy	2011	2018	10

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	<a href="#">View Document</a>
URL of Policy document on promotion of research uploaded on website	<a href="#">View Document</a>

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

**Answer:** 1.73

#### **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:**

2021-22	2020-21	2019-20	2018-19	2017-18
4.02	0.65	2.36	0	1.62

File Description	Document
Minutes of the relevant bodies of the Institution	<a href="#">View Document</a>
List of teachers receiving grant and details of grant received	<a href="#">View Document</a>
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	<a href="#">View Document</a>

### **3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years**

**Answer:** 0.67

#### **3.1.3.1 The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years**

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
1	2	2	4	3

File Description	Document
List of teachers and their international fellowship details	<a href="#">View Document</a>
e-copies of the award letters of the teachers	<a href="#">View Document</a>

### **3.2 Resource Mobilization for Research**

#### **3.2.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)**

**Answer:** 581.62

#### **3.2.1.1 Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
60.00	10.75	125.1	233.56	152.21

File Description	Document
List of project and grant details	<a href="#">View Document</a>
e-copies of the grant award letters for research projects sponsored by government and non-government	<a href="#">View Document</a>

### ***3.2.2 Percentage of teachers having research projects during the last five years***

**Answer:** 0.78

#### **3.2.2.1 Number of teachers having research projects during the last five years**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
1	1	2	5	5

File Description	Document
Names of teachers having research projects	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### ***3.2.3 Percentage of teachers recognised as research guides***

**Answer:** 10.26

#### **3.2.3.1 Number of teachers recognized as research guides**

Answer: 35

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### ***3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years***

**Answer:** 9.65

#### **3.2.4.1 Number of departments having Research projects funded by government and non-government agencies during the last five years**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
---------	---------	---------	---------	---------

1 1 2 4 4  
**3.2.4.2 Number of departments offering academic programmes**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
23	24	24	25	26

File Description	Document
Supporting document from Funding Agency	<a href="#">View Document</a>
List of research projects and funding details	<a href="#">View Document</a>
Paste link to funding agency website	<a href="#">View Document</a>

**3.3 Innovation Ecosystem**

*3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.*

Answer:

Yes, ACE is committed to encourage the Curiosity Driven Projects and Sponsored Research Projects which would converge with the development of frugal products of social relevance. Ambience and Eco-system for promoting research, innovation and entrepreneurship development envisages Incubation system (DETI@ACE-TBI) with well-equipped hardware and software support besides providing hostel for Start-Ups, Connectivity/ Liasoning with National Entrepreneurial Network hub to scale-up further. This has been helping ‘Start-Ups’ to escalate as Scale-Ups. State-of-the-art facilities established under the aegis of sponsored research grants along with the physical infrastructure provided by Host Institution have been yielding young innovators with their unique products/technology to meet the challenges faced by the local region.

Research laboratories are equipped with advanced instruments/ software to foster research culture in emerging areas.

NSS is actively involved in eliciting Techno-economical solutions for Community Health care maintenance and Social problems of Engineering Significance.

Institutional Commitment is being reflected through following verticals as depicted below:

Nature of Ecosystem created	Intended Purpose of Creation	Relevant Indicator Preceding Five Years
DETI@ACE-TBI	Promotion of Start-Ups	Start-Ups so far 32
NIDHI PRAYAS	Promotion of Innovation & Product Development	Products Developed 41
MSME Regional Host Institute	Idea Hackathon & to promote Hackathon	Projects ongoing 4
Research Centers/ Labs	To take up Research & Consultancy & Significant activities	Seven Labs-37 Research Experiments
NSS	Achievement of Social Relevance	Around 20 tasks are



Nature of Ecosystem created	Intended Purpose of Creation	Relevant Indicator Preceding Five Years
		completed
Hostel for Start-Ups	Facility for Product developers	Start-Ups are 22 accommodated in Six Hostel Rooms
IPR	Process facilitation, Patent Filing and Commercialization	Patents Claimed 23

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

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

**Answer:** 158

**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:**

2021-22	2020-21	2019-20	2018-19	2017-18
43	25	32	30	28

File Description	Document
Report of the event	<a href="#">View Document</a>
List of workshops/seminars during last 5 years	<a href="#">View Document</a>

**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**

**Answer:** A. All of the above

File Description	Document
Link for additional information	<a href="#">View Document</a>

**3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years**

**Answer:** 0.69

3.4.2.1 How many Ph.Ds are registered within last 5 years

Answer: 24

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

Answer: 35

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	<a href="#">View Document</a>
URL to the research page on HEI web site	<a href="#">View Document</a>

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

**Answer:** 0.88

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
90	80	66	46	35

File Description	Document
List of research papers by title, author, department, name and year of publication	<a href="#">View Document</a>

**3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last five years**

**Answer:** 0.56

**3.4.4.1 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:

2021-22	2020-21	2019-20	2018-19	2017-18
14	34	49	86	19

File Description	Document
List books and chapters in edited volumes / books published	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

**Answer:** 6.05

File Description	Document
Bibliometrics of the publications during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

**Answer:** 17

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.5 Consultancy**

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

**Answer:** 12.74

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
5.086	1.79	1.33	1.0	3.53

File Description	Document
List of consultants and revenue generated by them	<a href="#">View Document</a>
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	<a href="#">View Document</a>

**3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).**

**Answer:** 68.42

**3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
5.68	0.45	5.85	56.32	0.12

File Description	Document
------------------	----------

List of training programmes, teachers and staff trained for undertaking consultancy	<a href="#">View Document</a>
List of facilities and staff available for undertaking consultancy	<a href="#">View Document</a>
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	<a href="#">View Document</a>

### 3.6 Extension Activities

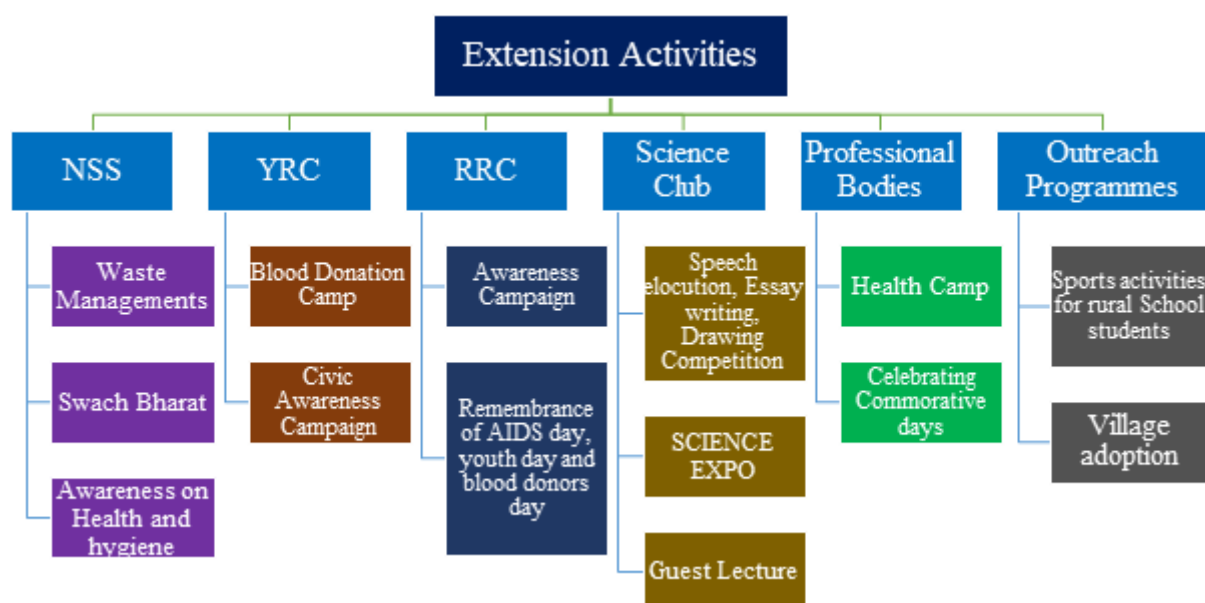
**3.6.1 Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development, and impact thereof during the last five years**

#### Answer:

ACE is committed to involving the students in a good number of extension activities in the neighbourhood community related to social issues such as providing basic support to enhance the lifestyle of people as also address issues related to their health and education.

The college has an NSS Unit with a trained faculty member as the Programme Officer. 100 students are enrolled with the unit, which drives all the extension and outreach activities through various centres and schemes. The outcome of such activities is also reflected by appropriate credits in the internal assessment of each student.

Exposure to such extension and outreach activities is a harbinger to sensitize the students towards their social responsibilities. A major impact of such activities is the nurturing of a holistic development in our students in line with United Nations-Sustainable Development Goals.



#### Key initiatives undertaken by ACE during the last completed academic year and their impacts:

Centre/Scheme	Year/Month	Activities	Impact
NSS & The People Society of Hosur (TPSOH)	01/08/2022	International Day against Drug Abuse	Awareness on the hazardous impact of drugs to create a no drug world
Department of Physical Education	21/06/2022	International Yoga Day Celebrations	Created awareness on the significance and benefits of

Centre/Scheme	Year/Month	Activities	Impact
			Yoga in the life of every individual
NSS-Social Outreach Programme	06/04/2022	Hundi Counting at Chandra Choodeeswara Temple-Housr	Involved students to assist the temple to count the money donated by the public
Department of Architecture	27/03/2022	Village Survey and Urban Study	Examined the current status of the implementation of various important schemes of the Government of India in selected villages and created awareness on the same
Youth Red Cross & Hosur Municipality	04/02/2022	Tobacco Eradication Drive	Created awareness about the harmful effects of tobacco and Tobacco Control Laws
NSS	20/01/2022	Workshop and Training on preparation of Masks in the nearby Villages	Trained the villagers to manufacture masks for use during pandemics/endemics
NSS & Hosur Municipality	25/01/2022	Voters Day	Created awareness on the right to vote in Hosur City Created awareness on the right to vote in Hosur City
NSS & TN Health Department	06/09/2021	Covid-19- Vaccination Drive.	Organised Vaccination drive in Campus
<i>Swachh Bharat</i> Campaign	15/10/2021	Campus Cleaning	Awareness on the importance of cleanliness and hygiene of the campus
ACE-Science Club	17/10/2021	Webinar on Waste Valorisation	Awareness on conversion of waste into wealth (useful end products)
NSS & St. Peter's Medical College Hospital	07/10/2021	Breast Cancer Awareness	Awareness on the prevention of breast cancer

File Description	Document
Upload Any additional information	<a href="#">View Document</a>

Paste link for additional information	<a href="#">View Document</a>
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**3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years**

**Answer: 0**

**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:

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

File Description	Document
Number of awards for extension activities in last 5 year	<a href="#">View Document</a>
e-copy of the award letters	<a href="#">View Document</a>

**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**

**Answer: 38**

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
9	6	13	6	4

File Description	Document
Reports of the event organized	<a href="#">View Document</a>
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	<a href="#">View Document</a>

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

**Answer: 34.46**

**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:

2021-22	2020-21	2019-20	2018-19	2017-18
2100	400	3625	598	658

File Description	Document
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Reports of the event	<a href="#">View Document</a>
Average percentage of students participating in extension activities with Govt or NGO etc	<a href="#">View Document</a>

### 3.7 Collaboration

#### 3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Answer: 186.4

##### 3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
195	43	82	244	368

File Description	Document
Number of Collaborative activities for research, faculty etc	<a href="#">View Document</a>
Copies of collaboration	<a href="#">View Document</a>

#### 3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

Answer: 31

##### 3.7.2.1 Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
3	20	3	3	2

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	<a href="#">View Document</a>
Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years	<a href="#">View Document</a>

### 4.Infrastructure and Learning Resources

#### 4.1 Physical Facilities

##### 4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

Answer:

ACE has adequate infrastructural facilities are available and are upgraded for effective teaching-learning and holistic development of the students. As per AICTE and the Anna University norms for infrastructure classroom, laboratory, library, recreation area and reading rooms have been fulfilled. The floor space, furniture, equipment, support system and ICT facilities meet the statutory requirements.

## Classrooms & Seminar Halls:

- There are 106 well-ventilated and spacious classrooms with ergonomic furniture to accommodate all the students.
- 4 drawing halls in Mechanical and Civil Engineering Departments for Engineering Graphics course.
- 4 Air Conditioned Seminar Hall for conducting Department level programs such as association activities and programs related to the professional bodies of the department.
- Accessibility to all floors is provided through broad staircases and corridors.
- Multiple exit points address the footfall needs of the institution.
- 70% of classrooms are equipped with LCD projectors and 30% of classrooms with LAN connectivity.
- Noticeboards are available in all the classrooms.
- Dustbins are provided for collecting segregated waste in all the classrooms.
- Wi-Fi access points in all floors of all the buildings enable connectivity during classes.

## Laboratories:

- Domain-specific laboratories with state-of-the-art equipment pave the way for enriching learning experiences.
- Basic Science Laboratories
  - Engineering Chemistry Laboratory-I & II (120 seating Capacity)
  - Engineering Physics Laboratory-I & II (120 seating Capacity)
- Computer Based Laboratories
  - Computer Science and Engineering-3
  - Master of Computer Applications-3
  - Information Technology-2
  - Electronics and Communication Engineering-2 (Digital Signal processing & VLSI design Lab.)
  - Electrical and Electronics Engineering-1 (Simulation Laboratory)
  - Computer Aided Design Laboratory-3 (Civil/Mech./Arch.)
- Department of Mechanical, Civil and aeronautical Engineering has 20 laboratories comprising of Fluid mechanics, Thermal, Strength of Materials, Machine shop, Engineering Practices, Survey, Metrology and Instrumentation etc.
- Department of Biotechnology and Chemical Engineering has eight laboratories comprising of Biochemistry, Organic Chemistry, CRE lab. Etc.,
- Department of EEE/ECE has 8 Laboratories comprising of Digital Electronics, Optical & Microwave, Analog Electronics, Circuit Devices etc.
- Language lab is available for language training and to enhance Communication skills.

## Other Campus Infrastructure for Teaching and Learning:

- Internet & Intranet facility available in Departments and libraries.
- Library with LR's/Journals/e-journals, training and placement center, on campus Health Care Centre, office of COE, Student Counseling Cell, Centers of Excellence/Incubation Centers/Innovative Labs etc

S. No.	Facilities Required	AICTE Recommended Norms	Available @ ACE
1	Land area (Acres)	7.5	46.42
2	Instructional Area (sq. m.)	16385	44280
3	Administrative Area (sq. m.)	770	5490
4	Amenities Area (sq. m.)	370	5820



S. No.	Facilities Required	AICTE Recommended Norms	Available @ ACE
5	Circulation Area @25%of built-up area (sq. m.)	4381	11070
6	Total Class rooms and Area	97no. & 5676 sq. m	106 no. & 12540 sq. m
7	Total Tutorial Rooms and Area	19 no.& 627 sq. m	22 no. & 1452 sq. m
8	Laboratories and Area	123no.& 8778 sq. m	202 no. 19998 sq. m
9	Drawing Hall (sq. m.)	396	2600
10	Seminar Halls	3 no. & 396 sq. m	4 no. & 1600
11	Auditorium (sq. m.)	400 sq. m	600 sq. m
12	Computers (nos)	830	1030
13	Printers (nos)	83	130
14	Innovation Lab	Desirable	Available
15	ERP System	Desirable	Available
16	Bank / ATM	Desirable	1 Bank / 1 ATM
17	IPR Cell	Desirable	Available
18	Post office	Desirable	Available
19	Incubation Centre	--	2 functional, 1 being initiated

File Description	Document
Upload Any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

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

**Answer:**

ACE has Qualified Physical Directors with Ph.D., M. Phil., M. P. Ed, qualifications are employed to give coaching. General budget allocates funds for sports and games as per requirement.

The college has adequate infrastructure facilities for sports and games over an area of 40 acres. It has a gymnasium with indoor badminton court, table tennis facility, equipment for gymnastics, football, hockey, cricket, volleyball, basketball, khokho and kabbadi grounds and an indoor sports stadium. The college provides free sports kits, shoes, sports equipment etc. It also offers other incentives such as free-ships, special prizes, cash awards etc. to players. Some players have participated and won positions in the National, State and Regional level competitions; particularly in inter institution level and University level

competitions, which need special mention. The expertise coaching in specialized games and sports also help the students in enhancing their sports skills.

The facilities presently available are listed as under:

S.No.	EVENT	MEASUREMENT	GROUND FACILITY
1	Indoor Stadium	Multi-use Mega Hall	<p>One of the biggest Multi-purpose Indoor stadiums in India</p> <p>Gallery with the seating capacity for 7000 Spectators</p> <p>2000 players can be accommodated in the periphery of the stadium</p> <p>The stadium also inches-</p> <p>Six Badminton Courts</p> <p>Two Basket Ball Courts</p> <p>Six Table Tennis Boards</p> <p>Two Volley Ball Courts</p>
2	Athletics	80mts Straight, 120mts Curve, 8 Lanes	A standard 400 M track with stadium, gallery and rooms where 1000 players can be accommodated
3	Ball Badminton	24mts x 12mts	Four courts with gallery and floodlit facility
4	Basket Ball	28mts x 15mts	Two courts with gallery and floodlit facility
5	Chess	--	Spacious hall gallery with floodlit and 7000 seating gallery
6	Kabaddi	13 mts x 10mts	Four courts with gallery and floodlit.
7	Tennis	23.77mts x 10.97mts	Two courts with gallery and floodlit facility
8	Volley Ball	18mts x 9mts	Four courts with gallery and floodlit facility
9	Hockey	100yds x 60yds	Three fields with gallery (One lawn field)
10	Foot Ball	110yds x 70yds	Four field with gallery (Two lawn field)
11	Weight Lifting	Big Hall	A state of the Art Indoor Hall equipped to match standards.
12	Best Physique	Big Hall	A state of the Art Indoor Hall equipped to match standards

S.No.	EVENT	MEASUREMENT	GROUND FACILITY
13	Cricket	70 yards	Four fields with gallery facility and players lodging. (Two lawn Fields & One international turf wickets )
14	Kho- kho	28mts x 16mts	Two courts
15	Hand Ball	40mts x 20mts	Two courts

Fine arts club encourages the students to take part in various intra & inter-collegiate cultural festivals. This club is financially supported by the college for purchasing instruments and other public addressing systems.

Every year fine arts week is celebrated to motivate and encourage the students to improve their cultural skills. Literary and Youth Welfare association motivates and guides the students to participate in inter collegiate competitions related to elocution, essay writing, quiz, verse writing and paper presentation to improve their communication skills and talents.

Yoga club encourages students to do simple exercises and meditation in order to improve calmness of mind, promote intellectual sharpness and clarity of thinking.

Further, the college encourages the students to exhibit their talents during annual day celebrations, department level events, hostel day celebration etc. Funds are provided generously to buy the required instruments and other accessories.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

**4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)**

**Answer:** 79.05

**4.1.3.1 Number of classrooms and seminar halls with ICT facilities**

**Answer:** 83

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

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

**Answer:** 40.97

**4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
279.76	115.4	301.23	179.79	80.91

File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	<a href="#">View Document</a>
Upload audited utilization statements	<a href="#">View Document</a>
Link for any additional information	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

### 4.2.1 Library is automated using Integrated Library Management System (ILMS)

Answer:

ACE libraries are fully automated with Integrated Library Management System (ILMS) supported by *Autolib* (since 2014). The college has three full-fledged libraries named as

- Library Information Centre-Main Library (49420 sq. ft.)
- MCA Library (807 sq. ft.) in Main Block,
- MBA Library (1025 sq. ft.) in MBA Block
- Architecture Library (725 sq.ft.) Civil & Architecture Block

**Details about books, titles, journals (National / International), CDs, e –resources, e- journals, thesis, etc.)**

- The Main Libraries works under open access system(.ac.in). It has provided with various section like Circulation counter, Stack section and Massive Reading Hall in Ground floor, Stack Section, Digital Library and Back Volumes (1953) in First floor, Reference, Journal Section, Seminar Hall, Audio/Video Hall in Second floor.
- The Library holds the Institutional membership with NDLI (National Digital Library of India), NPTEL (National Programme on technology enhancing Learning), DELNET (Developing Library Network), CMTI (Center Manufacturing Technology Institute), CSI (Computer Society of India), IEI (Indian Institute of Engineers) ICT (ACADEMY OF TAMIL NADU, which are all provided in Library web page for users.
- The Library is computerized and automated by using (Autolib) software, Barcode Technology, Web OPAC (Online Public Access Catalogue) for retrieving books and learning materials of the Library including CDs, project reports and previous year question papers.
- It has numerous specialized collection of Books, Journal, Knimbus online, Informatics publishing limited (e – Shoodh Sindhu) Engineering Technology, DELNET, NPTEL.

### Working Hours:

- Monday to Friday: 8:30 AM to 6:00PM
- Saturday: 8:30 AM to 1:30 PM
- Average users per day: 650 Physical
- E- Access 1250 per day

### Institutional Membership:

1. DELNET-Developing Library Networking, Delhi
2. CMTI-Center Manufacturing Technology Institute
3. NPTEL-National Programme on Technology Enhanced Learning
4. CSI-Computer Society of India
5. IEI-Indian Institute of Engineers

**Borrower Eligibility:**

1. HoD: 10
2. Faculty: 08
3. UG Student: 08
4. PG Students: 08
5. Research Scholar: 08

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste Link for additional information	<a href="#">View Document</a>

**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**

**Answer:** A. Any 4 or more of the above

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	<a href="#">View Document</a>

**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)**

**Answer:** 25.57

**4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)**

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
9.87	26.02	58.25	33.20	.51

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	<a href="#">View Document</a>
Audited statements of accounts	<a href="#">View Document</a>

#### 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

Answer: 21.3

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

Answer: 806

File Description	Document
Details of library usage by teachers and students	<a href="#">View Document</a>

#### 4.3 IT Infrastructure

##### 4.3.1 Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities

Answer:

ACE the institute has an IT policy covering all major areas like Wi-Fi, software, cyber security etc. which is updated or amended whenever called for. Institution upgrades IT facilities as per the norms of the regulatory bodies as well as industry. Institution is regularly upgrading its infrastructure covering Wi-Fi, cyber security, software, ERP system and ICT-enabled teaching-learning. IT policy has been formally approved by Academic Council and Board of Management.

The acceptable usage policies are applicable to employees, students and visitors. Institution has framed various policies like procurement, installation of hardware, network and software. Website hosting and database usage policy has its method and hierarchy which is followed systematically. Any violations of IT policy by any member are dealt with strict disciplinary action against the offender/s. Institution allocates 3 to 5% of the annual budget for upgrading the IT facilities which are audited as per the balance sheet and changes in the system as follows:

- During the previous cycle of accreditation, the campus was enabled with internet bandwidth of 300 Mbps. But now, it is upgraded with the bandwidth of 1000 Mbps (1:1) from BSNL.
- Number of Wi-Fi routers is also increased with high configuration after the previous cycle of NAAC accreditation and Wi-Fi network facility is now deployed across the campus. Students and faculty members get maximum benefit to access internet to do their project and research works.
- In the computer laboratory students have their login and they have restriction to install new software, with the help of lab administrator they can install.
- Virtual LAN has been created in all computer laboratory to regulate the internet connection over campus.
- Usage of pen drive in the computer laboratory is totally prohibited for students to avoid malpractice in the lab.
- Some of the class rooms are wi-fi enabled, the students can connect their laptop with prior permission for doing projects and assignments
- Institution has installed sonic wall NSA 4600 firewall during the year 2018 with all licensing features which has increased cyber security, it helps to create reports like IP based log files, Bandwidth utilization history etc.
- Through the firewall policy the students are allowed to access only education related web sites.
- Institution has installed CCTV across the campus covering all areas of the college for providing better security and surveillance.

File Description	Document
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Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

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

**Answer:** 3.02

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Student - computer ratio	<a href="#">View Document</a>

#### 4.3.3 Bandwidth of internet connection in the Institution.

**Answer:** ≥50 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	<a href="#">View Document</a>

#### 4.3.4 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

**Answer:** D. 1 of the above

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for Additional information	<a href="#">View Document</a>

#### 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

**Answer:** 21.45

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

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
176.9	80.5	78.63	89.27	45.2

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	<a href="#">View Document</a>



**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.**

**Answer:**

ACE has organizational system for the monitoring and maintenance of the infrastructure and IT facilities of the institution. A full-time Maintenance Engineer, Financial Manager and an administrative office are the responsibility centers for infrastructure augmentation and maintenance.

**Monitoring Utilization of Facilities and Maintenance:**

The infrastructure planning and maintenance section augments various academic, sports and cultural facilities to suit the needs of students in line with the annual perspective plan. These sections adhere to the standard operating procedures and plan the schedule of maintenance of physical infrastructure and campus facilities. They have a daily schedule of monitoring the maintenance and upkeep of facilities.

- Purchase section is responsible for budgeting, acquiring and inventory of necessary furniture, equipment, electrical and electronic gadgets and other infrastructural requirements.
- Infrastructure maintenance section inspects, updates, and repairs various facilities in the campus.
- IT maintenance section oversees the purchase, installation, software upgrades, repair and maintenance of computers and other IT facilities.
- Library Committee plans and monitors infrastructure for library and information Centre.
- Physical Director monitors the upgradation and maintenance of sports facilities, gymnasium and equipment.
- Carpentry workshop in the campus designs, produces and maintains quality furniture.
- Support and maintenance are provided by lab assistants in the Science and Engineering laboratories.

**Utilization:**

Faculty members and staff strive to ensure optimum utilization of infrastructural facilities for the holistic growth of the students.

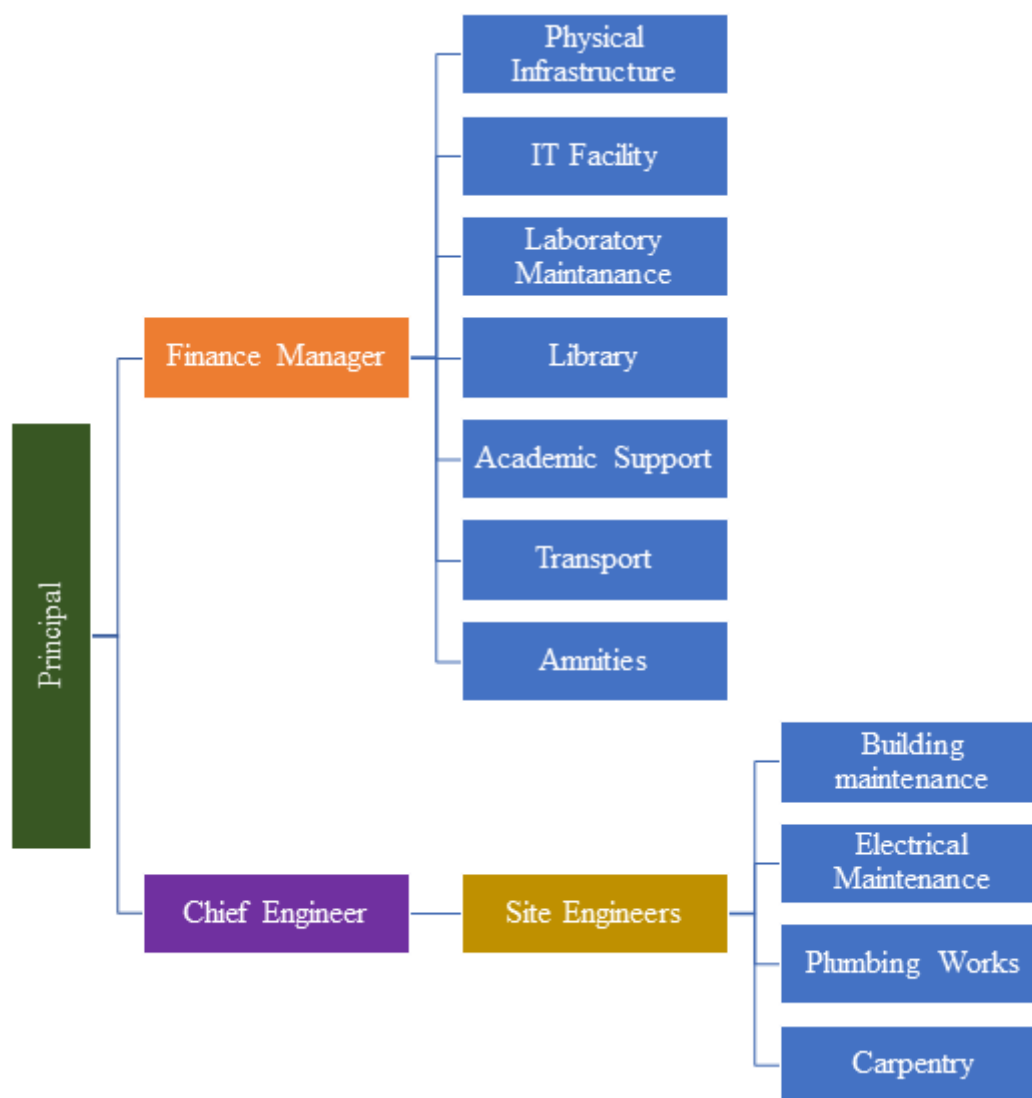
- The classrooms are allocated based on a need assessment and are mapped in the ERP.
- The auditoria and conference halls are utilized for college, university and national level events.
- Group discussion rooms, reading rooms and personal cubicles in the library enable efficient utilization of books and on-line resources.
- Efforts are made to enhance library usage through introducing Library Hours in regular Time table
- The HoD's prepare a schedule and lab manual for the optimum utilization of laboratories.
- Fire safety and security equipment in all the blocks are maintained through AMC
- Effective landscaping of green campus has been utilized for recreation, group study, meditation and relaxation.
- 4 Check dams is used to harvest rain water.
- The two Sewage Treatment Plant (STP) is optimally utilized to treat wastewater.
- Staff & Students Canteen, Food courts, Cafeteria, Guest house, Girls and Boys hostel, Post Office, Bank/ATM, Reprographic Centre and Girls Boudoir are effectively utilized by students and maintained by the administrative office.
- The solar panels installed in the terrace of the Hostel block harvest solar energy for water heating
- Outdoor and Indoor sports facilities are utilized for training and conduct of sports and games of the institution affiliating university and local community.

**Campus Maintenance:**

- Full time maintenance supervisor and personnel are available to provide services such as electrical work, plumbing, furniture upkeep, building maintenance, gardening, maintenance of sports facilities and housekeeping.
- Electrical/electronic engineers have been employed full time to install and maintain various electrical, electronic and public address systems. Based on the requests made by departments and

various centers, new systems are installed or existing ones are repaired to increase efficiency.

- Elevators, air conditioners, UPS, CCTV and generators are maintained by Electrical Site Engineers
- 10 Reverse Osmosis commercial units with a capacity of 50 litres/hour is maintained by the support staff.
- The water hardness is tested periodically by the Department of Chemistry
- The college adheres to the statutory fire safety regulations. Fire safety equipment are inspected and maintained by Construction office.



File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

## 5.Student Support and Progression

### 5.1 Student Support

#### 5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years

Answer: 76.95

##### 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)**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
2247	2803	3873	4307	5009

File Description	Document
upload self attested letter with the list of students sanctioned scholarships	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	<a href="#">View Document</a>

**5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution and non-government agencies during the last five years**

Answer: 13.74

**5.1.2.1 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)**

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
347	233	1002	1040	682

File Description	Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>

**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**

Answer: B. 3 of the above

File Description	Document
Details of capability enhancement and development schemes	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

Link to Institutional website	<a href="#">View Document</a>
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**5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.**

**Answer:** 13.93

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

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
970	455	530	310	762

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.1.5 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**

**Answer:** B. 3 of the above

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<a href="#">View Document</a>
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>

**5.2 Student Progression**

**5.2.1 Average percentage of placement of outgoing students during the last five years**

**Answer:** 52.96

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

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
522	822	816	812	918

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Self attested list of students placed	<a href="#">View Document</a>

Details of student placement during the last five years	<a href="#">View Document</a>
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### **5.2.2 Percentage of student progression to higher education (previous graduating batch).**

**Answer:** 6.64

#### **5.2.2.1 Number of outgoing student progressing to higher education.**

**Answer:** 63

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>
Details of student progression to higher education	<a href="#">View Document</a>

### **5.2.3 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.)**

**Answer:** 100

#### **5.2.3.1 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:**

2021-22	2020-21	2019-20	2018-19	2017-18
29	12	25	18	5

#### **5.2.3.2 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:**

2021-22	2020-21	2019-20	2018-19	2017-18
29	12	25	18	5

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>
Number of students qualifying in state/ national/ international level examinations during the last five years	<a href="#">View Document</a>

### **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 level (award for a team event should be counted as one) during the last five years.**

**Answer:** 294

#### **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:

2021-22	2020-21	2019-20	2018-19	2017-18
60	35	64	62	73

File Description	Document
Number of awards/medals for outstanding performance in sports/ cultural activities at inter-university / state / national / international level during the last five years	<a href="#">View Document</a>
e-copies of award letters and certificates	<a href="#">View Document</a>

### **5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution**

Answer:

ACE believes that its growth and development is through active participation of its stakeholders. Students being the most important of stakeholders and play a major role, the institution value the participation of students in all the endeavors with regard to academics, extra- and co-curricular activities, facilities and safety. ACE involves students in its several statutory and non-statutory bodies to let their voice be heard for their overall development, happy stay and fruitful/satisfactory take-away from the campus. The various student committees comprise of representatives from all groups of students and are led by faculty members of the institution. The function of the student council is to encourage students, those who are interested in leadership, organizational activities, event planning or becoming more involved in the college chores. It is the responsibility of the council to ensure that all events, activities and interactions on campus are conducted in a manner acceptable to the culture and norms of the affiliating university. The council is meant to assist all clubs and committees on campus with their functioning and conduct of various related activities.

#### **Roles of the Student Council:**

The council also assists in organizing the following activities related to students:

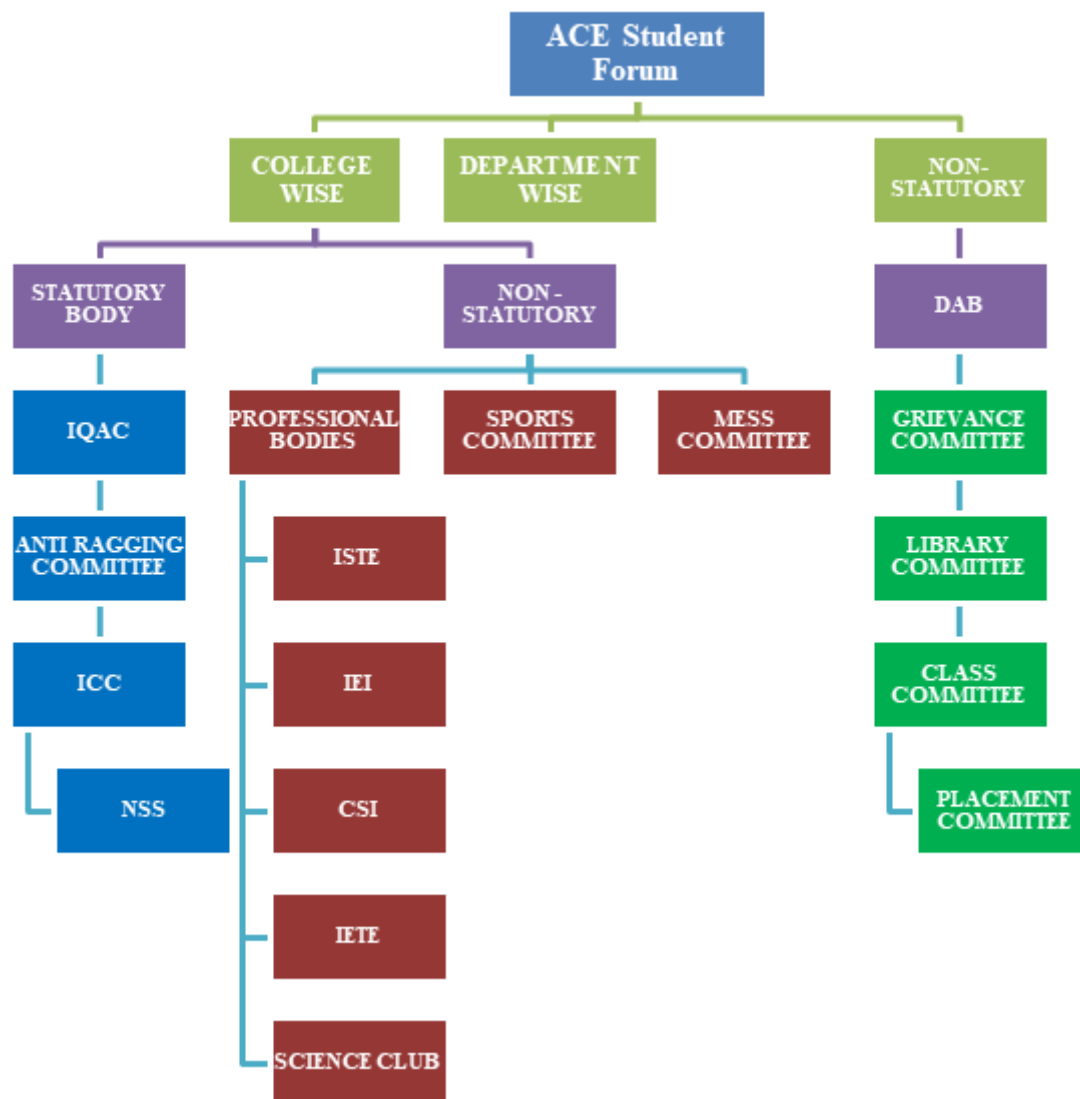
- Debates, discussions, lectures, study circle, essay competition
- Cultural Fests
- Technical Fests
- Indoor and Outdoor games
- Publication of magazines, bulletin and wall newspapers
- Industrial trips and Educational tours
- Social Service and Social Relief Activities
- *Swachh Bharat Abhiyaan*
- Tree Plantation
- *Yoga Day*
- Blood Donation
- Arrange intra-collegiate events and ensure participation of students
- Maintain the student's records who are participating in various programmes in and outside the institution.
- Establish a network with the alumni through various activities conducted by the college such as alumni meet and interact with the alumni at various forums and always maintain an updated database of the alumni.
- Host various workshops, speaker sessions, innovative games, competitions for aspiring entrepreneurs and support them by providing necessary resources such as, mentoring, consultancy and networking.

- Initiate the students for their active participation in various placement training activities arranged by the institute.
- Ensure that students are involved in physical activities like yoga, aerobics, gym etc.
- Ensure adequate student participation in sports day in the institution.
- Involve the students in social activities such as arranging blood donation camps and helping the affected during natural calamities through NSS volunteers.

The Following committees have student representatives

- Anti-Ragging Committee
- Sports Committee
- NSS Committee
- Women Empowerment Committee
- IQAC
- Mess Committee
- Chapters like ISTE, IEI, CSI and
- Clubs like Science Club.

The overall members of the above committees are the active members of the student's council of the Institute. Student's council members represent the grievances of their individual committee (if any) will be discussed and resolved.



File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for Additional Information	<a href="#">View Document</a>

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

Answer: 43.8

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

Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
43	29	51	44	52

File Description	Document
Report of the event	<a href="#">View Document</a>
Number of sports and cultural events / competitions organised per year	<a href="#">View Document</a>

### 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.

Answer:

#### Adhiyamaan Alumni Association:

Adhiyamaan College of Engineering has a registered “**Adhiyamaan Alumni Association**” under TamilNadu Societies Registration Act, 1975 and conducts Alumni Meet every year as their role is vital for the development of the institution. Alumni can provide support in various aspects that are beneficial to the students, graduates, Institution and the society. Feedbacks and opinions/ solutions to the career challenges faced by the students is highly valued by the institution in achieving its vision and mission. The alumni are an asset to the institution and their contributions and involvement which significantly increase the reputation of the institution nationally and internationally. The College

#### Adhiyamaan Alumni Chapters:

ACE has two Alumni chapters:

- Bengaluru chapter was started on 12.12.2015
- Chennai chapter was started on 23.01.2016

#### Alumni Contribution to the College:

- They donate Books and stationaries for students in and outside the college.
- Network with alumni is effected through the alumni association and alumni also keep in contact through the Alumni page in the College website <http://www.adhiyamaan.ac.in/aneu/alumni.php>. Inviting alumni for interaction and discussion with the students to conduct group discussions and mock interviews.
- Renowned alumni are invited to deliver guest lectures, as Juries for students’ competitions and symposia and as participants for the seminars / workshops conducted in the college.
- Alumni act as an Active Member in Board of Studies in every department and play a major role on syllabus framing and updation.



- Many alumni are employed as faculty in other colleges and they play an important role in academic and institutional development, and they share their expertise and experience with the present students of ACE.
- Events like Tree Plantation, Non- tech events such as quizzes, games and so on are conducted as a part of Alumni meet.
- They give career guidance and placement Opportunities for the students through faculties and placement officer. They assist the students to crack the interviews.
- Alumni come to college as recruiters representing their companies and promote campus placements
- Alumni working in various organizations, provide summer internships and trainings for students by availing permissions from concerned officials.
- A few of the alumni members has established a startup as small-scale industries and became an entrepreneur. As an Entrepreneur, they share various skills and technical knowledge to the students through their challenging successful stories.
- They provide trainings for short duration soft- skill courses to the students for their career improvement
- They serve as active members for various academic and organizational bodies of the Institution.
- The members of the association act as bridge between industry and academia by giving important suggestions about emerging trends in business and industry.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

#### ***5.4.2 Alumni financial contribution during the last five years (in INR).***

**Answer:** A.  $\geq 15$  Lakhs

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### **6.Governance, Leadership and Management**

#### **6.1 Institutional Vision and Leadership**

##### ***6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution***

**Answer:**

#### ***VISION OF THE COLLEGE:***

- To foster ACE as a centre for nurturing & developing world class engineers & managers who convert global challenges into opportunities through value-based education.

#### ***MISSION:***

- To impart value-based quality education through effective teaching-learning processes.
- To nurture creativity, excellence & critical thinking by applying global competency factors to contribute and excel in the rapidly growing technological world.
- To continuously develop & improve holistic & innovative personality for global mobility.

- To make ACE a centre for excellence.

## QUALITY POLICY:

- ACE is committed to develop skills, knowledge and right attitude among students to meet the expectations of industry, parents & society with continual improvement through dedicated team work.

## Nature of Governance:

- The institute follows the guidelines from UGC, AICTE and Anna University & aims for the continuous improvement through IQAC norms & participating in NBA, NAAC, NIRF, etc.
- Well-structured systems, procedures and policies have been developed, approved by the Management and documented.
- A Governing body has been formulated with members from the management, nominees from AICTE, UGC, DOTE, State Govt., Industry, External and Internal faculty members and convened by the Principal.
- Development of various policy decisions are done through Academic Council and are percolated to departments through Board of Studies, & HODs and Department meetings.
- Office automation has been introduced to make the system faster and user friendly.
- The Institution confers awards for Research, Best faculty, Best students, Best project work, students excelling in the academic, Co-curricular and Extra Curricular activities etc.
- The manpower, infrastructure and financial requirements are identified at department level based on which college level requirements on these aspects are finalized.
- Whenever there is an additional intake or a new program, faculty strength and infrastructure requirements are identified and necessary action is taken to ensure the adequacy.
- In all the activities connected with development, implementation and continuous improvement, the top management extends total support and reviews the proceedings when required.

## Core values:

- **Student Focus:** Meeting community and student needs by creating an educational environment and culture so that the students can attain a variety of goals.
- **Excellence:** Maintain a high standard of integrity and performance leading to the achievement of academic and professional goals.
- **Collaboration:** Seeking input from all sectors and the stake holders of the college and the community.
- **Diversity:** Fostering a learning community in which the values, goals, and learning styles of all students are recognized and supported.
- **Life-Long Learning:** Serving enthusiastic, independent thinkers and learners striving for personal growth of the individual.
- **Technological Advancement:** Keeping pace with global technological trends and enhancing traditional values of technology to prepare students for success at work place.
- **Supportive Atmosphere:** Institution supports an atmosphere of trust where communication and teamwork cultivate a rich environment for teaching and learning process.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

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

**Answer:**

## Decentralization:

- Adhiyamaan College of Engineering has 12 different committees out of which four committees are categorised as Statutory committees and remaining as Non-statutory committees for the smooth functioning of the college.
- Faculty members are given responsibilities for organising various events, co-ordinating various club activities and two faculty advisors for each class.
- Each responsibility is headed by a Chief Coordinator, assisted by coordinators and a convener. Each coordinator is responsible for the activities carried out under each head.
- Faculty members are given responsibilities for organizing various events, coordinating various club activities and faculty advisors for each
- Students are also encouraged to plan and execute a number of technical and non- technical events through various students' clubs associations which give them a real time experience to organise any events. in their future.
- Under Alumni association, meetings were conducted once in a year. Surveys and feedbacks are taken inorder to improve curricular aspects to meet the current industrial scenario.
- Women Empowerment Cell is formed to create the importance of leadership to girl students by conducting various programmes in the campus.

## Participative Management:

- Students and Faculty members are involved at various levels in decision making and implementation of strategies.
- Participative management is encouraged by including faculty members in the statutory bodies such as Governing Body, Academic Council, Board of Studies, Disciplinary Committee & other institutional level committees.
- Class committee meetings are conducted in the department levels to monitor the teaching and learning process also necessary corrective actions are taken by the HoDs & the Principal (If Necessary) to ensure improvement in the teaching-learning process.
- Students play a vital role in hostel mess committee by deciding the food menu for the inmates & providing suggestions for overall improvement of the services of the hostel.
- Faculty have the freedom to decide the Curriculum and Syllabus being an Autonomous institution.
- Different programmes will be conducted to HoDs to improve their leadership qualities and interpersonal skills.
- Short term training programmes will be organised in the campus for the benefit of staff members to improve the subject knowledge and to encourage handling the classes effectively.
- Faculty members are also allowed to participate for Faculty Development Programmes which are conducted off the campus to enrich their knowledge.
- Each department has student association network in which a number of co-curricular activities are planned & executed which is guided by faculty in-charges of respective departments.
- Various extracurricular activities are planned & executed by the students & faculty-in-charges of respective clubs.
- Faculty members & alumni are involved in Board of Studies to enrich the curriculum development which promotes participative management.
- Students are also allowed to put-up stalls and run as a business entity during important functions which gives them a real-life experience of running a business. These types of programmes enhance the leadership and entrepreneurial skills of the students.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for strategic plan and deployment documents on the website	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

## 6.2 Strategy Development and Deployment

### 6.2.1 *The institutional Strategic / Perspective plan is effectively deployed*

#### Answer:

To meet the expectations of the stakeholders, ACE has done SWOC analysis and identified the bottlenecks by considering the history of the institution, growth pattern, present status etc. Based on the analysis and deliberations, a strategic plan was developed and deployed with respect to the following aspects.

#### **The following points shows the effective deployment of Strategic Plan.**

- Increase in number of value added courses from 2 to 168 observed during last five years.
- Percentage of students undertaking field projects/internships/student's projects raised from 12.65% to 33.21%
- Average percentage of teachers with Ph. D. during last five years is increased from 14.89% to 18.91%
- Percentage of teachers awarded national/international fellowship for advanced studies/research during the last five years is significantly increased to 1.17%.
- Pass percentage of students increased from 94.1% to 97.88%.
- Grants received from Government and non-governmental agencies for Research projects, endowments, Chairs in the institution during the last five years increased up to 581.62 Lakhs.
- Number of research papers per teachers in the journals notified on UGC website during the last five years is improved from 0.12 to 1.25
- Revenue generated from consultancy and corporate training during last five years increased from 12.6 Lakhs to 12.73 Lakhs.
- Average percentage of students participating in extension activities during last five years is increased from 24.32% to 61.5%
- Number of books and chapters in edited volumes/books published per teacher during last five years is increased from 0.1% to 0.56%.
- Percentage of classrooms and seminar halls with ICT enabled facilities such as smart class, LMS etc is significantly increased from 27.97% to 79.05%
- Average percentage of students benefited by scholarships and freeships provided by the Government during last five years is raised from 43.96% to 76.98%
- Average percentage of students benefited by scholarships and freeships provided by the Government during last five years is raised from 43.96% to 76.98%
- Average percentage of students benefited by scholarships and freeships provided by the Government during last five years is raised from 0.93% to 4.07%
- Percentage of student progression to higher education (previous graduating batch) is increased from 2.87% to 6.63%
- Average percentage of placement of outgoing students during the last five years is raised from 54.28% to 58.72%
- Average percentage of students qualifying state/national/international level examinations during last five years is increased from 81% to 100%
- Funds/Grants received from non-government bodies, individuals, philanthropies during the last five years is increased from 6% to 42.97%
- Implementation of e-governance in areas of operation is Good.
- Green campus initiatives taken in to consideration and effectively implemented.

#### **The above achievements are made possible through the implementation of following strategies.**

- Incentive schemes for paper publications in quality journals.
- Seed money to carry out Research and Development activities for the benefit of staff members.
- Coaching facility provided for students to prepare for competitive examinations like Graduate Aptitude Test in Engineering (GATE) and Indian Engineering Services (IES) to pursue higher education and to obtain Government jobs.
- Faculty are encouraged to publish SCOPUS indexed journals to enrich department levels.
- Registered more number of Memorandum of Understanding (MoU's) with reputed Medium and Large scale Industries to enhance student's exposure on real time working environment.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Strategic Plan and deployment documents on the website	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

**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.**

**Answer:**

**Governing Body** committee consists of members like Chairperson of the Institution, Trustees of the Institution and other members nominated by the University, AERI Trust, Management and the Principal. Meetings are conducted by the Principal once in every six months and two times in every academic year.

**Academic Council** committee is an institutional body consists of members like Chairperson of the Institution, Trustees of the Institution, the Principal, University Nominees, and Nominees from the Governing Body, Dean (Autonomous) and all Heads of the Departments.

**Board of Studies** is an institutional body consists of members like Chairman of BoS, University Nominee, Academic Council Nominee and Industrial Representative, Alumni of the Institution, Interdisciplinary Expert and Members of the Department Board. Main agenda of this committee is to frame the Regulations, Curriculum and Syllabus. Meetings are conducted by the Board of Studies Chairman of the respective departments twice a year

**Finance Committee** constitutes members like Chairman nominated by the Governing Body, a University Nominee, the Principal of the institution and a Faculty nominated by the Principal. The main agenda of this committee is to discuss on the financial statements of the institute for each semester with the certified Chartered Accountant.

**Disciplinary committee** constitutes members like a Chairman and four senior faculty members to maintain and observe discipline in the campus to avoid untoward incidents.

**Grievance Appeal Committee** constitutes members like a Chairman, five faculty members from the institution and a faculty drawn from outside the campus. Main functions of this committee are to focus and resolve the Grievances received from the Students and Parents in order to ensure that the student's satisfaction is fulfilled.

**Admission Committee** constitutes members like Principal of the Institution and four senior faculty members drawn from various departments. Main functions of this committee are to improve the admissions by developing some strategies and implementing those successfully.

**Planning and Evaluation Committee** is chaired by the Principal, one senior faculty from the institution and five outside members nominated by the Management. The purpose of this committee is to discuss about the improvements to be done for the institution and to assess about the developments carried out each year.

**Library Committee** constitutes a Chairman usually the Principal, one Member Secretary usually the Chief Librarian and five members. The main agenda of this committee is to improve the stock of the Library for every year and to add advanced and latest text books and reference books.

**Student's Welfare and Extra-curricular Activities Committee** constitutes members like a Chairman usually the Principal of the institution and four Senior Faculty including NSS coordinator and Physical

Director. The purpose of this committee is improving the sports facilities in the campus and to encourage students to participate in sports and extra-curricular activities,

**Anti-ragging Committee** constitutes the Principal of the institution and five faculty members drawn from various departments with two Student coordinators from different branches. And also, one separate Anti-ragging Team is formed by the Heads of all the departments including Science and Humanities to ensure that Ragging is strictly prohibited in the campus.

**Women Empowerment Committee** is formed by six women staff members and four girl students from different branches. This committee is formed mainly to discuss the problems faced by the girl students in the campus and to encourage students to participate in various event

File Description	Document
Any additional information	<a href="#">View Document</a>
Link to Organogram of the Institution webpage	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### 6.2.3 Implementation of e-governance in areas of operation

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

**Answer:** A. All of the above

File Description	Document
Screen shots of user interfaces	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
ERP (Enterprise Resource Planning) Document	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

### 6.3 Faculty Empowerment Strategies

#### 6.3.1 The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression

**Answer:**

#### Effective welfare measures for teaching staff:

Every academic year the Institution organizes personality development programs for all teaching staff to improve their roles and responsibility. Faculties are encouraged to attend various seminars, conferences, workshops and faculty development programmes.

Infrastructural facilities are provided in a good manner for a healthy growth. Encouragement in presenting papers in various conference, seminars etc. organized by other institutions is provided. Faculties are motivated to register for M.Phil/Ph.D in the field of their interest and required support is extended for the same by the institution. Sabbatical leave will be provided (OD) for attending Ph.D course work examinations, FDP, National/ International conference. Opportunities are given to the faculties to accompany the students during their industrial visit at free of cost. For patent filling full fee will be paid by the institution.

## Effective welfare measures for non-teaching:

Training programmes are organized for non-teaching staff to improve the computer proficiency and skills in their respective field. Free uniforms are provided for non-teaching staff. Employees State Insurance scheme (ESI) covers medical expenses of all non-teaching staff and their dependent family members for all types of diseases.

## Facilities common to teaching and non-teaching staff:

### Medical facility:

Concessional medical facility has been established for the benefit of employees and family members working in the institution under the scheme titled AERI Trust medical expenses Reimbursement Scheme. The scheme is applicable to all category of employees working in the institutions run by the “Adhiyamaan Educational and Research Institutions” Trust.

On any medical need, hospital facility is arranged. On emergency, transport facility (ambulance 24/7) is arranged. Periodical health check-up is conducted by a team of doctors.

The employees those who are admitted in St.Peter’s medical college hospital must apply through Heads of the Institution for reimbursements under this scheme for the percentage of reimbursement applicable to them. Under this scheme the employees of institutions will be eligible for 50% of hospital bill reimbursement.

Under this scheme relative of the employees such as spouses, children, parents, in-laws, sister, and brother will be eligible for 25% of hospital bill reimbursement.

Regular eye checkup and spectacles are provided for the needed employees.

### Provident Fund and Leave facility:

- Provident Fund contribution is subscribed to all the staff members right from the day of joining.
- All employees are eligible for a 12 day casual leave per year at 1 day per month during the Academic Year from 01st June to 31st May. Monthly two one-hour permission is allowed to avail.
- The maximum duration and number of days for vacation leave shall be decided by the Principal/Designated Authority.
- Marriage gift and marriage leave with pay for 5 days.
- Maternity Leave is available for women employees of the institution.
- The decision of the Principal/Designated Authority will be final in sanctioning of all above mentioned leave

### Infrastructural Facility:

Various welfare schemes are available for teaching and non-teaching staff such as drinking water, hygienic rest rooms, canteen, first-aid, proper work place setting, Preference for spouse in employment, free over coat for women faculties, free teaching aids, Car Parking facility, Round the clock security, Bank, post office and Stationaries are within the premises, Free transport in the college bus. Sports and Games (indoor and outdoor) facility, yoga facilities and gym facilities are available.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>



**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.**

**Answer:** 15.94

**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:**

2021-22	2020-21	2019-20	2018-19	2017-18
70	57	52	46	59

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

**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.**

**Answer:** 20.6

**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:**

2021-22	2020-21	2019-20	2018-19	2017-18
27	22	19	17	18

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	<a href="#">View Document</a>
Reports of Academic Staff College or similar centers	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

**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 ).**

**Answer:** 19.03

**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**



Answer:

2021-22	2020-21	2019-20	2018-19	2017-18
73	50	64	75	80

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	<a href="#">View Document</a>
IQAC report summary	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution conducts internal and external financial audits regularly

Answer:

ACE conducts both, Internal and External Financial audits each year. While the Internal Audits are performed by the institutional Finance Officer and his team, External Financial Audit is undertaken by stipulated and recognized Chartered Accountants, appointed for the purpose.

#### Internal Audit:

Internal audit checks how well our institution maintains operational efficiency and manages accounting processes while complying with its standard operational procedures, rules and regulations. Conducting annual audits ensures that the institution is probity and accountability in following the administrative fundamentals and sticking to a maximum accuracy rate so far as financial reporting is concerned. Internal audits are conducted by the audit wing of the college, an internal auditor is appointed to check the overall performance of the institution with respect to the administrative, executive, financial, and legal standards followed by the institution.

Internal audit was performed to obtain and verify the financial data and accounting process system and it was carried out to assure:

1. The internal protocols, regulations and standards of the institution.
2. The Operating activities and compliance with laws and regulations.
3. The efficiency of our institution by identifying and advising means to improve accordingly.
4. Improvement in the processes and functions in accordance with the issues and risks identified.

Audit has covered verification of system of accounting of Receipts & Payments and others mentioned above and to express opinion on weaknesses in internal control, risk management and governance highlighting any exceptions and cases of non-compliance and suggest or recommend for further improvements in the design and operations of control based on internal audit.

#### External Audit:

The objective of the external audit includes the determination of the completeness and accuracy of the accounting records of our institution, to ensure that the records are prepared as per the accounting framework which applies to the standards and to ensure that the financial statements adhere to the regulations.

The major statutory requirements were followed by the institution and there were no audit objections recorded during the process.

1. Student fees and Hostel fees are the major source of resources (funds) and all the departments are encouraged to do consultancy projects for the firms.
2. The receipts, payments, vouchers and bills were verified during the audit period.

3. Internal control with regards to system access is followed as per the policy and appears satisfactory.
4. For DST, DRDO, AICTE, UGC, SERB and other sponsored projects, eligible amount is reimbursed by the corresponding agencies on production of audited expenditure statements.
5. Any deficit for capital expenditure is met by the Trust.
6. Bank reconciliations are done and matched with the book of accounts.

#### External Financial audits conducted during the last five years

Financial Year	Date of Audit	Name of the Auditor
2020 – 2021	03.07.2021	Ca. P. Mani & Co. (Chartered Accountants)
2019 – 2020	28.11.2020	Ca. P. Mani & Co. (Chartered Accountants)
2018 – 2019	25.05.2019	Ca. P. Mani & Co. (Chartered Accountants)
2017 – 2018	26.05.2018	Ca. P. Mani & Co. (Chartered Accountants)
2016 – 2017	04.05.2017	Ca. P. Mani & Co. (Chartered Accountants)

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

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

Answer: 0

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

Answer:

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

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

#### 6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Answer:

##### Institutional strategies for mobilization of funds:

Tuition fees and Examination fees are the major sources of revenue for the institution. Other fees collected are Hostel and Transport Fees for day scholars. Various projects are funded and sanctioned by several funding agencies like AICTE, UGC, DRDO, DST, etc., are accounted by the college office. The funds are utilized for research projects, training, testing and related activities. The review and expenditure reports are prepared at regular periods and sent for reference.

##### Optimal utilization of resources:

The remuneration of the College faculty and staffs are paid from the fees collected from the students, approximately 70% of the collected fees is spent on the remuneration of the staff. Sufficient and appropriate funds are allocated for experiential learning, effective teaching-learning practices like seminars, hands-on workshop, webinars and trainings. Funds are budgeted for computer hardware installations, software updating, placement and training programmes followed by the honorarium for the faculty members on the college day for their achievements in research publications and their achievements in the curriculum.

Library expenses, medical expenses to students, faculty and staff members, affiliation & approval, sports & games and other administrative expenses are also planned in the budget. The college is providing scholarships for both UG and PG students. Government of India & Tamil Nadu, the candidate belongs to BC, MBC, and SC/ST category and selected the seat through TNEA / NATA / TANCET counseling. Exuberant efforts are taken to outsource various educational funds from the Alumni, well-wishers of the College, NGOs and Corporates.

The strength of our college is that no student discontinues his/her studies due to lack of financial help. The research grants are effectively utilized in the implementation of projects and purchase of necessary equipments. Adequate funds are utilized for the development of good infrastructure by the College.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

## 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 visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle)**

***Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)***

**Answer:**

IQAC functions as per guidelines of UGC. Recommendations given by NAAC during Cycle II visit, were discussed and considered for step wise implementation.

### **IQAC Initiatives:**

- Quality benchmarks/parameters for various academic and administrative activities of ACE are introduced by the IQAC.
- Annual Quality Assurance Report (AQAR) is submitted, every year, as per guidelines of NAAC, in time.
- IQAC serves as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of the best practices.
- NAAC sponsored workshop on “Role of AAA in HEI” was conducted in December 2020.
- Feedback response from students, parents and other stakeholders on quality-related institutional processes are documented and placed in Academic Council/Governing Body for necessary action.
- Institution Innovation Council (IIC) is established as per AICTE norms.
- Internal and External Academic and Administrative audits are periodically conducted involving external experts and senior faculty members to monitor the implemented strategies.
- Eco-friendly campus has been ensured through periodical green, energy, hygiene and environment audits.
- Institutional Perspective Strategic Planning (IPSP) and SWOC analysis are practised to face local as well as global challenges for attaining quality education outcomes.

**Describe two practices institutionalized as a result of IQAC initiatives:**

**1. Curricular Aspects and Teaching Learning Process:**

- The curriculum is designed to cater to the local, regional, national and global developmental needs.
- 90% of courses focus on employability/entrepreneurship/skill development.
- Course delivery emphasises on problem solving and experiential learning using ICT.
- 40+ Value Added Courses are introduced covering all disciplines which eventually recorded more number of student participation.
- Curriculum is designed to address all crosscutting issues.
- All the students undergo field projects, internships and project works which in turn gets reflected in the form of research publications and patents.
- A Language Laboratory is established to support students attain communication skills in English.
- Students are encouraged to do design and fabrication projects prior to their final year.
- Feedback mechanism is followed for continuous improvement all aspects of Teaching-Learning Process (TLP).

**2. Research, Innovation and Consultancy:**

- Publications in national/international journals, indexed in highly reputed databases like Scopus, Web of Science, SCI etc., are increased by 20% every year.
- h-index of the institution is raised to 32.
- Consultancy is an added advantage for revenue generation.
- Sponsored projects and grants are received from government and corporate agencies to fortify R&D activities.
- 4 Laboratories are upgraded under the Modernization and Removal of Obsolescence (MODROBs) scheme-AICTE.
- No. of Ph.D. registered by faculty is increased year by year.
- A good number of faculty is benefited through Seed Money.
- ACE-TBI in the campus, established with the grant-in aid support of DST, GoI, is a unique facility for converting innovative ideas into commercial products.
- ACE-TBI is a 'PRAYAS Centre' under the NIDHI scheme of DST for nurturing knowledge-based and technology-driven ideas and innovations into successful start-ups since 2017 onwards.
- 23 new patents are filed in line with the development of processes and products for launching of start-ups under National Initiative of "Make in India".
- ACE is recognized as Scientific and Industrial Research Organization (SIRO) by the Department of Scientific and Industrial Research organization (DSIR), GoI, since 2019.
- ACE is recognized in the band " PERFORMER" in the ATAL Ranking of Institutions on Innovation Achievements (ARIIA) programme of Ministry of Education, GoI, since 2019.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

**6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities**

**( For first cycle - Incremental improvements made for the preceding five years with regard to quality**

**For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives )**

**Answer:**

The IQAC reviews the teaching plan, teaching-learning process, innovative pedagogy employed and assessment of learning outcomes through a streamlined mechanism.

### **Initiative 1 – Teaching-Learning Process Review Mechanism**

**The IQAC has implemented the structured teaching-learning process review mechanism as given below:**

**Academic Calendar:** IQAC prepares the academic calendar well in advance at the start of the year and circulate it to all the departments. Every department prepares department calendar based on institution's academic calendar. It covers not only the regular teaching-learning process but also the various events like seminars/guest lectures/workshops/FDPs and many more.

**Orientation on Teaching - Learning:** The heads of departments provide an orientation on the teaching-learning process with expected course outcomes and pedagogies based on the previous year's review.

**Course Plan:** The faculty members submit course/teaching plans specifying the topic, pedagogies, skill development, ICT, course and programme outcomes. The plan is based on the previous year's review.

**Student-Centric Pedagogy:** The learning level identification mechanism serves as the manual for reviewing the teaching-learning pedagogies adopted for slow and advanced learners.

**Staff Log Book:** The teaching-learning engagement is recorded by the teacher every day in the work done logbook which is submitted to the Principal through the HoD for review at the end of every month.

**Feedback on teachers by students:** The institution has a feedback system to evaluate the teachers by the students. The Dean-Academics and the management also monitor the feedback system and take appropriate corrective actions.

**Student learning outcomes:** The institute monitors the performance of the students regularly. It has specified procedure to collect and analyse data on student learning outcomes. The following points are adopted by the institute in this context:

### **Initiative 2: Academic Audit of Departments**

The academic audit provides an opportunity to enhance the quality in teaching-learning process of the institution. The academic audit is conducted for the

1. First year engineering courses,
2. Higher semester under graduate Engineering Programmes and
3. Post Graduate programmes.

The audit is conducted at three levels

- Faculty level
- Department level
- Institute level

The first level is the self-analysis by faculty handling the respective courses. The audit comprises of around 10 parameters namely the course outcomes defined for each course, the CO-PO mapping, assessment tools followed, assessment analysis, CIE Bar graph representation, SEE grade distribution, CIE-SEE correlation factor, CO attainment and best practices through the course.

The second level of audit is conducted by the respective department academic audit committee. The audit comprises of five auditing parameters such as the best academic practices of the department, listing of courses which need COs to be redefined, courses where the CIE distribution is of concern, courses where CIE-SEE correlation is of concern and any other aspect of the department.

The third level audit is conducted by the IQAC at the institute level. For this, a team comprising of senior professors is formed to audit the departmental academic activities. This audit focuses of observations with regard to the best academic practices of the institution and suggests areas of improvement. Finally, a summary of the audit is prepared and is placed for outlining an action plan to improve the quality of academic activities. Academic audit is conducted once in every semester.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>

#### 6.5.3 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
2. Collaborative quality initiatives with other institution(s)
3. Participation in NIRF
4. Any other quality audit recognized by state, national or international agencies (ISO Certification)

Answer: 2 of the above

File Description	Document
Upload e-copies of the accreditations and certifications	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Link for additional information	<a href="#">View Document</a>
Paste web link of Annual reports of Institution	<a href="#">View Document</a>

### 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.

Answer:

ACE has a strong ethical work culture that provides equal opportunities to all individuals irrespective of their social differences. The Institution provides safety, security and counselling facilities to all students through its well-defined equity and diversity without any discrimination.

#### a) THE SALIENT FEATURES

FEMALE PARTICIPATION IN THE CAMPUS				
Female Students	Female Faculties	Heads of Department	Chairman - Board of Studies	Professional Bodies- Coordinators
31%	41%	35%	40%	50%

#### b) CURRICULAR ASPECTS

- Introducing **Gender-based non-credit courses** as per Regulation 2018 in curriculum to bring awareness among students about the gender -based discrimination, violence and other issues, there by sensitising them to think critically about gender -based problems and to find solutions to improve.

### c) CO-CURRICULAR ACTIVITIES

**Internal Complaints Committee** has been in existence.

- **Women Empowerment Committee** of ACE organized various Awareness programmes/ Workshops/ Competitions/ Celebrations as listed below, to motivate and give awareness about their mental and physical well-being and strengthen their confidence thereby empowering them to face the society:

- **Health and Hygiene**
- **Personal hygiene**
- **Menstrual hygiene**
- **Cancer awareness**
- **Health check-up**
- **Brain awareness**
- **Blood donation**
- **Facing Interviews and Resume building.**
- **Competitions:** (i) Technical: Quiz, Paper Presentations, Debate, Speech

(ii) Non-Technical: Dance, Singing, Rangoli, Drawing

- **International Women's Day** is celebrated every year. Successful women guest professionals like Police officials, Govt. Administrative officials, Executives from Industries etc. are invited to motivate girl students and give awareness about their social responsibilities.

**Counselling** through Tutor/Mentoring system is adopted to impart academic and psychological well-being of the students in the following hierarchy:

1. Faculty
2. Tutor
3. Head of the Department
4. Principal
5. Parent
6. **Anti-ragging committee** has not registered any complaint of ragging of female students till now.

### d) FACILITIES FOR WOMEN AT THE CAMPUS

#### ○ **Common Room:**

- **Common room** with well-ventilated space and required facilities.
- **Sick room/rest room** facility attached with wash rooms and accessories.
- **First-aid box.**
- **Sanitary napkin vending machines** are provided both in the common room and ladies hostel.
- **Incinerators** are installed in the wash rooms to dispose sanitary napkins.
- Apart from common rooms, specific wash rooms for female are available in each block.
- **Separate Hostel facilities** are provided for female students within the campus.
- Only female faculty are appointed as Deputy Warden and supervisors.
- Daily attendance and IN/OUT register is maintained for students residing in the hostel.
- Students are allowed to go home only with the prior permission of the deputy wardens with the knowledge of the parents.
- **Maternity Leave facility** can be availed by female faculty without a break in their service.
- **Day care facility** is provided with supporting staff and utilities for female faculty who have pre-school children.

## e) OTHER FACILITIES

- **24x7 Surveillance:** Security is ensured by **Security personnel** and **CCTV Cameras** at vantage points.
- **Medical facilities:** **24x7 Ambulance** facility and **Medical Assistance** at “St. Peter’s Medical College and Research Institution”.

## f) INCREMENTAL CHANGE AFTER THE FIRST CYCLE

- Gender based courses in Regulation 2018 in the curriculum.
- Increase in the number of awareness programmes conducted by WEC.
- Maternity Leave facility without a break in their service.
- Day care facility.
- More number of female faculty to hold administrative positions.
- 24x7 medical facility is given by our sister concern.
- Increase in the number of CCTV cameras.

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	<a href="#">View Document</a>
Annual gender sensitization action plan	<a href="#">View Document</a>

### 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*

**Answer:** B. 3 of the above

File Description	Document
Geotagged Photographs	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

### 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*

**Answer:**

ACE has adapted provisions for managing degradable and non-degradable wastes of the campus

**Solid waste management:**



- Solid waste management is one of the best practices in the college campus. The waste generated at the campus is processed according to the Solid Waste Management (SWM) rules 2020
- Awareness programs and workshops on solid waste management are conducted for students, faculties and housekeeping staffs to impart the importance of recycle of waste and bio-composting.
- Segregated wastes dumped in the particular dustbins of Green, Blue, Yellow colour in all corridors (at each floor).
- The housekeeping staff collects the waste every day, and segregates them each day.
- Bio-degradable wastes are collected from canteen, hostel and fruit juice shops and segregated effectively and converted to fertilizer by composting processed organic compost is utilized for plants.
- College encourages using digital platform since 2017 for communications as a step for reducing the paper wastage. Paperless communication is in use less quality of paper wastes is generated from classrooms, hostels, library and administrative process and these wastes is segregated according to the quality of the papers. The papers are bundled and kept in designated area in each block and later they are disposed to vendors.
- In college canteen and hostels, usage of steel plates and biodegradable plates are in practice from the year 2018 as a part of reduction in usage of plastics.
- Waste Sanitary napkins are disposed using an incinerator which was erected during the year 2015. Incinerators are located at Bhavani hostel and in ladies rest room

#### **Liquid waste management:**

- The college campus has a sewage treatment plant to treat 5 lakh litres of effluent per day.
- The treated waste water is utilized for the maintenance of the landscape and also used for cleaning washrooms, wash basins and laboratories.
- Canteen waste water is also recycled and utilized for gardening. Remaining treated waste water is drained in lawns to improve the ground water recharge.
- Rainwater harvesting plant is commissioned in every block, hostels and canteen for water conservation.

#### **E-waste management:**

- The e-wastes generated like lab instruments, circuits, desktops, and accessories and UPS, biometric machines etc. are handed over to the maintenance department and is disposed through authorized vendors (M/S Ascent urban recyclers, Pvt., Ltd)

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	<a href="#">View Document</a>
Geotagged photographs of the facilities	<a href="#">View Document</a>

#### **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

**Answer:** A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	<a href="#">View Document</a>

Link for any additional information	<a href="#">View Document</a>
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**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**

**Answer:** C. 2 of the above

File Description	Document
Various policy documents / decisions circulated for implementation	<a href="#">View Document</a>
Geotagged photos / videos of the facilities	<a href="#">View Document</a>

**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**

**Answer:** B. 3 of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	<a href="#">View Document</a>
Certification by the auditing agency	<a href="#">View Document</a>
Certificates of the awards received	<a href="#">View Document</a>

**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**

**Answer:** B. 3 of the above

File Description	Document
Policy documents and information brochures on the support to be provided	<a href="#">View Document</a>
Geotagged photographs / videos of the facilities	<a href="#">View Document</a>
Details of the Software procured for providing the assistance	<a href="#">View Document</a>

**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).

Answer:

- ACE is proactively taking efforts in providing an inclusive environment. The initiatives are to promote better education, economic upliftment of the needy and setting communal harmony. The institution has a rich cultural mix of students from different regions .
- The institution believes in equality of all cultures and traditions as it is evident from the fact that students belonging to different regions, diverse socio-cultural background, different linguistics are studying without any discrimination. The institution does not have any intolerance towards cultural, regional, linguistic, socio-economic and other diversities. Hence we greet and wish each other at different festivals and invite them to have a feast to get introduced with different cultures to have amicable relations.
- To develop emotional and religious feelings among the students and the faculty, various festivals are celebrated on the campus with the initiative and support of the management to generate the feeling of oneness. The institution and its Faculties jointly celebrate the cultural and regional festivals, like *Pongal*, *Onam*, *Saraswathi Pooja*, etc in the campus. Other events celebrated in the college include Fresher Party, Teachers day, Orientation/Induction and farewell program.
- International days are celebrated in the campus like International yoga day, Independence day, Rally, Oath, Plantation, Youth day, Women's day in the college to promote harmony. Sports and cultural activities are organized in the campus to encourage a positive attitude among students. In relation to this, we have various club activities like Fine arts club, English club, Photography club and Nature club.
- Motivational lectures by eminent personalities of the field are arranged for all-round development of the students for their personality development, universal values, attitude building and to make them responsible citizens following the national values of social and communal harmony. Similar efforts/initiatives are taken by the institute to ensure an inclusive environment for everyone.

**List of events organized by the institute:**

Year	Type of Event	Name of the Event	Date
2021-2022	Cultural	College day	14.03.2022
	Orientation	Lecture on Universal Values	25.09.2021
	Linguistic	International Mother	20.02.2022
		Language Day	
	Socio-economic	Rural Development Program	28.03.2022 - 31.03.2022
	Awareness	Women Safety & Self defense	22.03.2022
		Drug Abuse	25.06.2022
		Seminar on Organ Donation	17.06.2022
		Health & Hygiene	07.04.2022
	Celebration	Yoga day	21.06.2022
Ayutha pooja		13.10.2021	
National Youth Day		12.01.2021	
2020-2021	Orientation	Orientation on online learning platform	28.07.2020
	Socio-economic	Food donation drive	21.09.2020
	Awareness	Vaccination Awareness Program	22.02.2021
2019-2020	Cultural	College day	14.03.2020

	<b>Orientation</b>	Lecture on Universal Values	18.12.2019
	<b>Linguistic</b>	International Mother	21.02.2020
		Language Day	
	<b>Awareness</b>	Rally on Cancer awareness	04.02.2020
	<b>Celebration</b>	Yoga day	14.02.2020
<b>2018-2019</b>	<b>Cultural</b>	Sports day	30.03.2019
	<b>Orientation</b>	Positive Attitude Building	12.12.2018
	<b>Linguistic</b>	International Mother	22.02.2019
		Language Day	
	<b>Socio-economic</b>	Rural Development Program	07.01.2019 - 11.01.2019
	<b>Awareness</b>	Healthy life for Female	20.09.2018
<b>2017-2018</b>	<b>Cultural</b>	Sports Day	10.03.2018
	<b>Orientation</b>	Personality Development	06.11.2017
	<b>Linguistic</b>	Importance of communication skills	21.02.2018
	<b>Socio-economic</b>	Mass Cleaning Program	05.04.2018
	<b>Awareness</b>	Helmet Awareness Program	05.02.2018
	<b>Celebration</b>	Pongal	12.01.2018

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<a href="#">View Document</a>

**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).**

**Answer:**

- Every year, ACE celebrates national commemorative days to create awareness about the values, rights, responsibilities and duties among the students to inculcate unity, responsibility and patriotism.
- Common syllabus is framed for all the departments to conduct AICTE mandatory course like **Professional ethics and Human Value, Bioethics, IPR and Entrepreneurship and Indian Constitution** as a part of motivation and to obtain knowledge in constitutional values, rights and duties to become responsible citizen.
- Every year, institution organizes **blood donation camp** with NSS team. This year it was organized on 12.08.2022. This activity cultivates “Moto of Saving life” of citizen.
- **International Yoga Day** is celebrated every year on 21st June as a respect and credit to the origin of yoga as **an ancient practice of India that builds strength and awareness and brings together the mind and body**. Last year international yoga day was celebrated with eminent person **Swami Baba Ramdev (Yoga teacher, Patanjali Ayurved)** as a guest. All the students and faculty members practiced yoga explained by the guest on this occasion. This event teaches the values of our ancient practice to the students and employees of the institute.

- Webinars are arranged on “**Awareness on COVID**” to the students, teaching and non- teaching staff members to create knowledge about the corona virus and its spread in the country based on this, NSS team arranged a **vaccination camp** on 16.03.21 at the campus as a part of initiation of immunization to provide timely benefits for students, faculty members and staff of the institution.
- **International Women’s Day** is celebrated on March 8th and **International Youth Day** is celebrated on 12th January every year. **Awareness on Road Safety, eye check-up camp, Swachh Bharat Hosur**, is celebrated every year. Motivational and Gender equality were discussed as a part of the event.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	<a href="#">View Document</a>

**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*

**Answer:** C. 2 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	<a href="#">View Document</a>
Code of ethics policy document	<a href="#">View Document</a>

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

**Answer:**

ACE is committed to promote ethics and values to budding Engineers and Faculty Members to encourage the same, the Institute has established practice of organize, observe and celebrate various important National and International commemorative Days, festivals and Anniversaries of the great India in its own peculiar pattern through various professional bodies and Societies which include.

1. Parakram Divas: Netaji Subhas chandra Bose Birthday (23rd January)
2. National Voters Day (25th January)
3. Republic day (26th January)
4. Science Day (28th February)
5. World Engineering Day (4th March)
6. International Women’s Day (8th March)
7. National Vaccine Day (16th March)
8. World Water Day (22nd March)
9. World Telecommunication Day (17th May)
10. International Yoga Day (21st June)
11. Independence Day (15th August)
12. Aviation Day (19th August)
13. Teachers Day (5th September)
14. Engineers Day (15th September)

15. Gandhi Jayanti (2nd October)
16. World Standards Day (14th October)
17. Youth Awakening Day (15th October)
18. National Education Day (11th November)
19. World Computer Literacy Day (2nd December)
20. Energy Conservation Day (14th December)

The celebrations are based on the instruction given by Highlighting the themes of the events declared by various professional organization such as UNESCO, IEL, IETE, ISTE, SAMP, Science Fora and Government. Also the Institute organize various competitions, Memorial Lectures, Paper Presentations, Award Distributions etc. Also The institute pays homage and Floral tributes to the Portrait of the leaders who sacrificed their lives for the country.

The student's community has a mission towards better India by breaking the boundaries of religion and caste. Thoughts of great Indian personalities sowed into the young minds through the exhibitions and programs conducted on these days. The institution practices pluralist approach towards all religions, functions and encourages the students and faculty to showcase the same. Every year the Institute organizes the national festivals and Birth and Remembrance anniversaries of the great Indian personalities.

Faculty Members and Budding Technocrats get to know the importance of national integrity in the country in general and their role in it in particular. Apart from the above specific days and events, a large number of other events are celebrated either as per the directions of AICTE/MHRD/ UGC, or as per the Conventions of the University. It is a rich tradition leading to cultivation of knowing, learning good habits among the Budding Engineers and Faculty Members.

File Description	Document
Geotagged photographs of some of the events	<a href="#">View Document</a>
Annual report of the celebrations and commemorative events for the last five years	<a href="#">View Document</a>

## 7.2 Best Practices

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

Answer:

**BEST PRACTICES - I**

## Research promotional policy to improve R&D Activities and Accreditation

### OBJECTIVES OF THE PRACTICE

- Enhancing the research publications in peer reviewed journals and conference to improve Research and Consultancy
- Sudden changes in accreditation procedures, introduction of ranking system such as NIRF Ranking has imposed great challenge to improve research culture in the Institution.

### THE CONTEXT

- Adhiyamaan College of Engineering is a well-established academic institution.

- Majority of the postgraduate engineering programmes were started between the academic years 1992 to 2006. Changing the orientation of faculty from teaching to enhancing the research culture and encouraging the faculty to improve the qualification from PG to PhD was a major challenge.
- Establishing the Research and development centers at Center of Excellence was a major challenge.

## **THE PRACTICE**

- Deploying the research culture in the institution, instilling a research culture to improve the institutional environment, providing the required infrastructure support system, getting the grants from the various funding agencies for sustaining was a major challenge.
- Possibilities for collaboration, locally, regionally, and globally was a major concern for the institution.
- To change the mind-set and instill research culture, faculty with postgraduate qualification were deputed to leading institutions for workshops, encouraged to publish/present the papers in national and international peer reviewed conferences and to register for PhD.
- Department of Mechanical Engineering, Department of Computer Science Engineering, Department of Electrical and Electronics Engineering, Department of Physics and Department of Chemistry are recognized as research centers from Anna University.
- Faculties with PhD were encouraged to apply for external funding. Seed Money for projects up to Rs.200000 is introduced from the institution.
- Institute has established one center of excellence in Un-manned Aerial Vehicle. NIDHI PRAYAS center has been established in the institution to promote and develop high end entrepreneurship for Science and Technology (S&T) manpower as well as self-employment by utilizing S&T infrastructure and by using S&T methods.

## **EVIDENCE OF SUCCESS**

- External funding improved every year
- Seed money for the research projects has been initiated and few projects have been funded
- Research publications in peer reviewed journal improved every year.
- Institution has organized national level Conferences/Seminars/Symposiums/Workshops/FDP/SDP/STTP frequently.
- Institute has established one center of excellence in Un-manned Aerial Vehicle.
- NIDHI PRAYAS center has been established in the institution
- Numbers of PhD research scholars were increased.
- More than 50 MoU's with reputed Industries and Institutions.

## **PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED**

- To train the faculty in outcome based education by conducting series of Pedagogy programmes, required good resource persons and time consuming. Training must be a continuous process to train all newly recruited faculties.
- Improving facilities for research and establishing separate research and development centers require huge financial commitment.
- Establishing the Collaboration with Industry is very difficult and it is still ongoing process.
- Getting funding from Non Govt. organizations is becoming very difficult year by year.
- Admission of Quality of the PhD and Post Graduate students is big challenge.

## **ANY OTHER INFORMATION THAT MAY BE RELEVANT FOR ADOPTING/IMPLEMENTING THE BEST PRACTICE IN OTHER INSTITUTIONS**

- Establish Technological Business Incubator(TBI) for improving research activities of faculties and students
- Establish more centre for excellence for improving experimental learning of faculties and students
- Effective implementation of product development based research activities to receive more grants from government and Non-government agency

# ENHANCED LEARNING THROUGH INDUSTRY CONNECT

## OBJECTIVES OF THE PRACTICE

The main objective of the Enhanced Learning experience through industry connect is to establish a knowledge based of the students with the proficiency and required knowledge skillset.

- To establish convergence with industrial and research organizations from various fields through MOUs as a form of interaction.
- To explore and identify common avenues of interaction with industries.
- Establish membership in various professional bodies like ISTE, IE(I), IIA, IIChe, CSI etc to conduct various technical events to the students.

## THE CONTEXT

- A continuous interaction between the Industry-Academia Connect is essential. The Industry-Institution Interaction Cell, which was founded in 2018 to promote the interaction between industry and our institute, offers a fantastic forum for faculties and students to learn about what the market expects from the graduates.
- It acts as a stage for showcasing the best procedures, most recent technological advancements, and their applications.
- More than fifty MOUs are signed in the past few years to enhance the support. for the interaction with Industries. All the functional MOUs helps to conduct various activities towards industry connect
- The professional association membership helps the students to interact with the Industrial professionals and participate in various national and international competitions. It also widen their vision to explore more opportunities in the global market.

## THE PRACTICE

- Encourages industry professionals to actively participate in curriculum design and career development initiatives, which are crucial for developing the skill sets of students who are inclined to meet market expectations.
- Ample industrial experience is given to faculty members in order to improve the Teaching Learning Process and help the institution create quality students, which will help academia advance in the global knowledge index.
- Further, all students are required to complete an internship that includes hands-on training.
- The professional body membership of the faculties helps them to participate in various training program and workshops to enhance their skillset.

## EVIDENCE OF SUCCESS

- Number of industrial visits for Faculty members and students are arranged.
- Encourage the faculties to assist the Training and Placement activities based on the Industries need.
- Visits to the institute by industry professionals and practising engineers, to evaluate research work and laboratories.
- Memorandum of Understanding between the institute and industries helps in bridging the two sides emotionally and strategically closer, helping the students learning process.
- Our curriculum is dynamic in character, and it has been created to foster a continuously expanding cooperation between academia and industry.
- Encourage the faculty members and students to publish their paper in the professional body journals like IE (I) journals.
- The student's personality is well moulded while participating in the programs organised by Professional bodies.

## PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED



- Due to the pandemic situation in the past few years, only limited students received access for industrial visits and internships.
- Resources/ Approvals Required Few more laboratory facilities to be added as per the requirement of the industry
- To implement the strategy of industrial mentoring along with industrial certification, which also includes the fundamental career guidance is our next step in the student industry-friendly program design.
- Some distinct positive changes in the curriculum design with grade equivalence for the industrial training will be provided in the future.

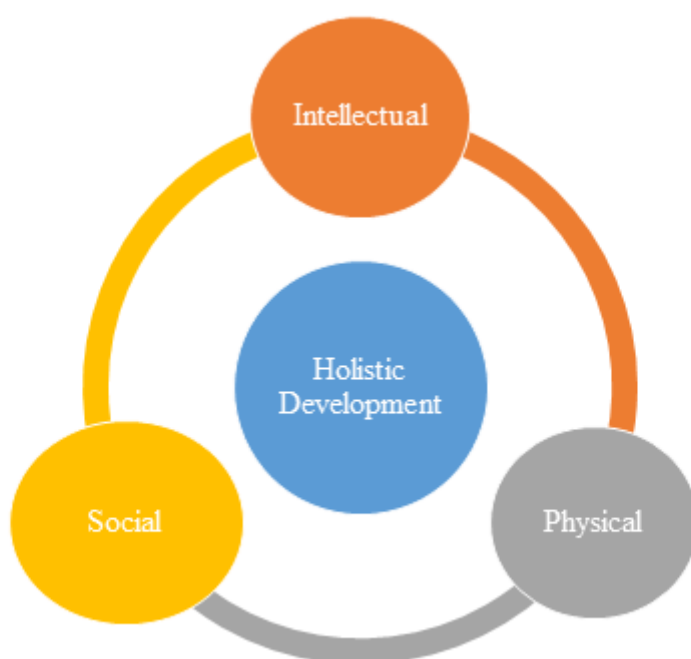
File Description	Document
Best practices in the Institutional web site	<a href="#">View Document</a>

### 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

##### Answer:

The institute has been concentrating on the overall development of students while aiming for excellence in education and meeting the quality requirements set by accrediting and regulatory organisations, as is evident from its vision and mission statements.



- **Intellectual development:** The institute, implements unique curriculum through well planned and effective teaching learning activities. The institute proactively identifies the curriculum gaps and makes the provision for imparting the content beyond syllabus bridging the gaps. Latest teaching methodology have been adopted to enable students to meet their individual needs. Bridging the Gap between Academics and Industry, the college works towards signing MOUs with different companies providing live projects for students. This gives an opportunity for students to get hands-on experience at handling different responsibilities and assisting in different activities. The students are also encouraged to take up short term internships at the end of every even semester. The MOUs signed with various companies help them get their internships easily.

- **Social development:** The social skills are nurtured through various activities conducted by the social clubs at the institute. The students are exposed to the diverse social structure and their issues, particularly in the neighboring areas, through the National Service Scheme implemented at the Institute, in collaboration with the Unnat Bharath Abhiyan cell of the institution. Extension activities focus on retaining traditional culture and values by coordinated efforts of Management, Faculty Members and Students are seen as the best practices. Statutory, Mandatory and Non-Statutory Committees have been established to self-regulate the processes and practices with a focus on Vision and Values. Sensitise the students about the relationship between an individual and the society, Students should engage social service initiatives through NSS.
- **Physical development:** The institute promotes physical activities among the students to cultivate many important skills such as physical fitness, team spirit, confidence, decision making, mental strength, etc. of the students. Each year, the institute organizes annual sports events for the students comprising of various sports such as cricket, volleyball, kabaddi, football, hockey and athletic events. In these sports both boys as well girls participate and show their skills – their sportsman spirit and team-building abilities grow. The institute celebrates international Yoga Day each year. During the camps held at various village adopted by the institute through NSS, various physical activities like Yoga, exercises, outdoor sports etc are conducted.

Due to the approach of **Holistic Development**, ACE graduates are found to work relentlessly while taking their responsibilities on passing out while being proved to be **intellectually competent, morally upright** and **socially committed** – They leave footprints of their own, wherever they go.

File Description	Document
Appropriate web in the Institutional website	<a href="#">View Document</a>

## Extended Profile

### Program

*Number of programs offered year-wise for last five years*

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
18	18	20	20	22

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

*Number of departments offering academic programmes*

**Answer: 13**

**Students**

*Number of students year-wise during last five years*

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
3443	3894	4590	5273	6150

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

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

2021-22	2020-21	2019-20	2018-19	2017-18
949	1431	1499	1695	1836

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

***Number of students appeared in the examination conducted by the Institution, year-wise during the last five years*****Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
3421	3873	4573	5243	6120

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

***Number of revaluation applications year-wise during last five years*****Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
125	0	164	145	06

**Teachers*****Number of courses in all programs year-wise during last five years*****Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
748	780	821	821	882

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

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

2021-22	2020-21	2019-20	2018-19	2017-18
341	336	344	359	413

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

***Number of sanctioned posts year-wise during last five years***

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
341	336	360	360	466

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

**Institution**

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

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
877	717	889	886	1309

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

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

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
935	975	1284	1325	1557

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

***Total number of classrooms and seminar halls***

**Answer:** 105

***Total number of computers in the campus for academic purpose***

**Answer:** 1139

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

**Answer:**

2021-22	2020-21	2019-20	2018-19	2017-18
499.58	246.69	564.93	573.15	465.19

## Conclusion

### *Additional Information :*

ACE is seized of the expectation of the transformative changes as envisaged under the NEP 2020, to be adopted by the institution. Being an autonomous engineering and management institution coming under the administrative purview of the affiliating university (Anna University, Chennai) and the Statutory regulations of the All India Council of Technical Education (AICTE, New Delhi), it will certainly abide by the mandates and norms of both these Apex bodies in regard to the implementation of NEP 2020 as and when mandated.

ACE is aware of the requirement to develop the all-round capacities of the students – intellectual, aesthetic, social, physical, emotional and moral in an integrated manner - the college has been encouraging the students to participate in several co-curricular and extra- curricular activities of the institution to nurture values and holistic development in them. Once mandated by the regulatory bodies, many of the above issues will also be incorporated into the formal educational delivery of the institution.

### *Concluding Remarks:*

ACE is driven by the quest for excellence which is articulated in the vision, mission and core values of our institution. The curriculum of ACE adheres to NEP-2020 to reskill and upskill societal and environmental concerns. Industry-oriented programmes with OBE is executed through experiential and blended learning which is impetus for involving in employability and entrepreneurship development. Feedback mechanism has been implemented to enhance internal systems and meet out the expectations of the stakeholders.

The infrastructure of ACE has been structured in such a way so as to provide conducive atmosphere for learning in all aspects of educational arena.

Providing placement and career opportunity for students is the major focus of ACE which is consistently achieved every year. In addition, ACE also supports faculty progression through faculty development programmes, career advancement scheme, welfare measures etc. Further, financial support and seed money concept are an added advantage to encourage research. Implementation of e-governance, IT infrastructure, e-content development centres and e-learning platforms provide the pathway for the future.

Extension activities of ACE has nurtured community engagement with the marginalised through SOPs, UBA schemes and social sensitisation. The institution has also developed conducive and friendly atmosphere the holistic development of differently-abled students.

Annual Green, Energy, Hygiene and Environment Audits are conducted periodically to ensure reduced carbon footprint, electricity consumption, zero waste, water conservation, recycling of wastewater and recharge of water resources.

The IQAC develops and implements quality benchmarks/parameters for various academic and administrative activities of the institution.

The Institutional Perspective and Strategic Plan has been the guiding force for the overall growth of the institution. The institution aspires towards excellence by moulding dynamic young leaders with a passion to make positive contributions leading to the prosperity of the society and the nation at large.

The international quality parameters, goals of higher education in India, guidelines of NBA, NAAC and UGC enable the institution to set benchmarks and devise strategies to achieve them.

## EXCLUDED METRICES

### List of Excluded Metrics

#### 3 Research, Innovations and Extension : Weightage ( 150 )

##### 3.2 Resource Mobilization for Research : Weightage ( 10 )

Ref No	Details of Metric	weightage	Metric Performance
3.2.3	Percentage of teachers recognised as research guides ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	3	10.26

##### 3.4 Research Publications and Awards : Weightage ( 30 )

Ref No	Details of Metric	weightage	Metric Performance
3.4.2	Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/ supervisors provided at 3.2.3 metric) during the last five years ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	5	0.69

#### 5 Student Support and Progression : Weightage ( 100 )

##### 5.2 Student Progression : Weightage ( 30 )

Ref No	Details of Metric	weightage	Metric Performance
5.2.2	Percentage of student progression to higher education (previous graduating batch). ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	10	6.64

#### 6 Governance, Leadership and Management : Weightage ( 100 )

##### 6.4 Financial Management and Resource Mobilization : Weightage ( 20 )

Ref No	Details of Metric	weightage	Metric Performance
6.4.2	Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs) ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	10	0

## ANNEXURE

### 1. Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

**Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years**

1.1.3

**1.1.3.1. Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..**

Remark : DVV has made the changes as per shared clarification.

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

1.3.2

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

Remark : DVV has made the changes as per shared report by HEI.

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

1.3.3

**1.3.3.1. Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years**

Remark : DVV has made the changes as per shared report by HEI.

**Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy ) during the last five years ( exclusive of supernumerary seats)**

2.1.2

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

Remark : DVV has made the changes as per shared clarification.

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

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

Answer before DVV Verification : 921

Answer after DVV Verification: 921

2.6.3

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

Answer before DVV Verification : 944

Answer after DVV Verification: 944

Remark : DVV has made the changes as per shared supporting documents.

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

3.1.2

**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).**

Remark : DVV has made the changes as per shared report by HEI.

3.1.3

**Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years**

**3.1.3.1. The number of teachers awarded national /international fellowship for advanced studies / research year wise during last five years**

Remark : DVV has made the changes as per shared clarification.

**Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)**

3.2.1

**3.2.1.1. Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)**

Remark : DVV has converted the value into lakhs only.

**Average percentage of departments having Research projects funded by government and non-government agencies during the last five years**

3.2.4

**3.2.4.1. Number of departments having Research projects funded by government and non-government agencies during the last five years**

**3.2.4.2. Number of departments offering academic programmes**

Remark : DVV has made the changes as per shared clarification.

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

3.4.3

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

Remark : DVV has made the changes as per shared clarification.

**Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).**

3.5.2

**3.5.2.1. Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)**

Remark : DVV has made the changes as per shared report by HEL.

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

3.6.2

**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.**

Remark : DVV has made the changes as per shared clarification.

**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

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

Remark : DVV has made the changes as per shared clarification.

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

3.6.4

**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.**

Remark : DVV has made the changes as per shared clarification.

4.3.4

**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**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: D. 1 of the above

Remark : DVV has made the changes as per shared clarification.

**Following Capacity development and skills enhancement activities are organised for improving students capability**

**1. Soft skills**

**2. Language and communication skills**

5.1.3 **3. Life skills (Yoga, physical fitness, health and hygiene)**

**4. Awareness of trends in technology**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: B. 3 of the above

Remark : DVV has made the changes as per shared clarification.

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

5.1.4

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

Remark : DVV has made the changes as per shared clarification.

**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**

5.1.5 **3. Mechanisms for submission of online/offline students' grievances**

**4. Timely redressal of the grievances through appropriate committees**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: B. 3 of the above

Remark : DVV has made the changes as per shared clarification.

6.5.3 **Quality assurance initiatives of the institution include:**

1. **Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements**
2. **Collaborative quality initiatives with other institution(s)**
3. **Participation in NIRF**
4. **Any other quality audit recognized by state, national or international agencies (ISO Certification)**

Answer before DVV Verification : 3 of the above

Answer After DVV Verification: 2 of the above

Remark : DVV has made the changes as per shared clarification.

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

- 7.1.2
1. **Solar energy**
  2. **Biogas plant**
  3. **Wheeling to the Grid**
  4. **Sensor-based energy conservation**
  5. **Use of LED bulbs/ power efficient equipment**

Answer before DVV Verification : A. 4 or All of the above

Answer After DVV Verification: B. 3 of the above

Remark : DVV has made the changes as per shared clarification.

**Green campus initiatives include:**

- 7.1.5
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**

Answer before DVV Verification : A. Any 4 or All of the above

Answer After DVV Verification: C. 2 of the above

Remark : DVV has made the changes as per shared clarification.

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

- 7.1.6
1. **Green audit**
  2. **Energy audit**
  3. **Environment audit**
  4. **Clean and green campus recognitions / awards**
  5. **Beyond the campus environmental promotion activities**

Answer before DVV Verification : A. Any 4 or all of the above

Answer After DVV Verification: B. 3 of the above

Remark : DVV has made the changes as per shared clarification.

**The Institution has disabled-friendly, barrier free environment**

- 7.1.7
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**

Answer before DVV Verification : A. Any 4 or all of the above

Answer After DVV Verification: B. 3 of the above

Remark : DVV has made the changes as per shared clarification.

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

7.1.10

- 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**

Answer before DVV Verification : A. All of the above

Answer After DVV Verification: C. 2 of the above

Remark : DVV has made the changes as per shared clarification.

## **2.Extended Profile Deviations**

ID

Extended Questions

**Number of sanctioned posts year-wise during last five years**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
341	336	344	359	413

1.3

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
341	336	360	360	466