



SELF STUDY REPORT

**FOR
2nd CYCLE OF ACCREDITATION**

ADITYA ENGINEERING COLLEGE

ADITYA ENGINEERING COLLEGE ADITYA NAGAR, ADB ROAD
SURAMPALEM
533437
www.aec.edu.in

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
BANGALORE**

November 2022

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Aditya Engineering College (AEC) was established in the year 2001 by Aditya Academy with the goal and mission of establishing a platform for the overall development and achievement of students studying at all levels of the institution. Since the early 1990s, the Aditya Academy is recognized as a leading education provider in East Godavari district of Andhra Pradesh. The AEC has been granted approval by the AICTE and is affiliated with JNTUK, Kakinada, Andhra Pradesh. The educational establishment provides professional programs in engineering, as well as diploma, MCA, MBA, and IMBA degrees.

In order to realize the institute's vision and fulfill its goal, the AEC is constantly developing in all the necessary areas to achieve academic excellence. During the year 2008, the ECE, CSE, and EEE undergraduate programs received accreditation from the NBA. During the year 2015, AEC was awarded "A" grade by NAAC, and during the year 2017, it was granted autonomous status by the UGC. The AEC is now preparing for the second cycle of accreditation from the NAAC and the NBA.

At present, the institute is offering 19 different programs: 10 undergraduate programs, 8 post-graduate programs, and one integrated program.

Vision

To induce higher planes of learning by imparting technical education with

- International standards
- Applied research
- Creative Ability
- Value based instruction and to emerge as a premiere institute

Mission

Achieving academic excellence by providing globally acceptable technical education by forecasting technology through

- Innovative Research And development
- Industry Institute Interaction
- Empowered Manpower

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- The Institute has qualified, motivated and experienced faculty.
- Rich curriculum with more focus on skill development and value addition.
- Good Teaching and Learning process with emphasis on learner centric methods.
- Quality and Quantity of research publications increased significantly during the past five years.
- Consultancy facility in department of Civil Engineering through NABL accredited lab.
- Well established infrastructure.
- Committed to offer quality education in rural area.
- Produced Top rankers in the University Examinations.
- Periodical conduction of faculty development programs.
- Well-designed employability skills assessment and training programs by in-house training division.
- Social extension activities like blood donation camps, educating rural students and health camps by NSS.

Institutional Weakness

- Student's results need to be improved.
- Long term plans for research promotion needs to be addressed.
- External funding needs to be attracted.
- Proactive efforts for industry-oriented consultancy needs to be accelerated.

Institutional Opportunity

- Existing infrastructure can be powered to set the Institution towards global recognition.
- Advancement in emerging technologies like Artificial intelligence, IOT, robotics and 3D printing provides scope for more employment.
- Industrialization and government initiatives like Make in India, Startup India provides scope for entrepreneurship.

- Availability of various skill development certifications on emerging technologies leading to better employability of students.

Emerging technologies like Artificial intelligence, Machine learning and Data Science opened the doors for inter-disciplinary research.

Institutional Challenge

- Faculty retention due to availability of employment in IT and allied sectors.
- State regulated tuition fees and admission
- Low reading habits and spirit of enquiry among the students

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The institute being autonomous, involves all stake holders in the process of curriculum development. Feedback on curriculum is collected, analyzed and the curriculum is designed in such a way that students demonstrate essential technical knowledge, skills and abilities needed for professional practice.

The curriculum gives equal importance to employability, skill development and entrepreneurship. It also prioritizes cross cutting issues relevant to Professional ethics, Human values, Environment and sustainability.

Teaching-learning and Evaluation

The institute maintains a healthy student-teacher ratio to facilitate learning activity without any hurdles. In line with the Outcome-based Education (OBE) practice, the institution promotes a learner-centered approach.

The institute has provided several ICT Tools/Resources to build a learner-centric learning environment. Students are trained regularly in new trends and innovative technology through workshops/seminars delivered by experts from industry and academia. Soft skills classes are conducted to improve the student's communication skills by encouraging them to participate in group discussions/tasks, JAM sessions and debates etc., from the first year onwards. Students are also motivated to attend seminars, workshops, and events hosted by other institutes. Students are encouraged to acquire new age skills through MOOCs. Students are motivated to pursue higher studies and prepare for competitive examinations.

A media center is established to record video lectures and develop e-content instructional materials. The digital library of the institute allows remote access to e-resources, e-journal articles, and e-books.

Each student is given personal attention during their course of study. The institute follows a systematic approach for uplifting slow learners and developing advanced learners' skills.

Mentoring system is in place to support the holistic development of students.

Research, Innovations and Extension

The institute has a clearly defined research policy in place to foster a culture of research among teaching staff and students. The Research Committee of the Institute is in charge of all the actions that are linked to the promotion and facilities for research.

Research promotion is carried out through:

- Undertaking of research projects under the guidance of senior scientists and academicians from other institutions of higher learning.
- Instruction on a variety of platforms and applications, with the goal of enhancing the potential of the faculty members.
- Hosting workshops on research methodology and intellectual property rights.
- Incentives for research articles published in journals, presented at conferences, book publications, and granted patents.
- Offering both financial and technical assistance in the process of patenting a concept.
- Allowing faculty to take time off for research purposes.
- Updating of laboratories with the most recent hardware and software.
- Providing faculty members and students with initial funding to get their research projects off the ground.

The JNTU Kakinada has recognized Departments of EEE, ME, ECE, CSE and PT as Research Centers.

In addition, the institute places a strong emphasis on extension efforts carried out by the NSS, the Youth Red Cross, and the Leo Club.

Key Highlights:

- Published 255 research articles in journals of national/ international repute and 189 research articles in national/ international conferences till date.
- Generated Rs. 1.13 crore through various consultancy activities.
- MoUs with 26 reputed organizations.
- Second rank under the AICTE's National level Utkrisht Sansthan Vishwakarma Awards 2019, for AEC's significant contribution in the growth and development of adopted village.
- Certificate of appreciation for notable involvement in "One Student One Tree" initiative of AICTE.

Infrastructure and Learning Resources

The institute gives top priority to infrastructure development to promote a good learning environment. Over two decades of time, the institute evolved a lot in terms of infrastructure.

The following are the major facilities available in the campus:

- ICT enabled classrooms and laboratories

- Well established Library
- E- content Development Facility
- Computing facilities
- Internet through LAN and Wi-Fi facility across the campus including hostels with 450 access points for Wi-Fi connectivity
- Office 365 (Microsoft Teams) for online teaching
- Dedicated Research Laboratories
- Skill Development Centres supported by APSSDC, SIEMENS, DASSAULT, ARC, CISCO Project labs
- Hostels, Gym, Play grounds, Guest house, Staff Quarters
- Cafeteria, Bank, ATM's, Dispensary

Recognitions received:

The institute is recognized as “Cleanest Higher Educational Institutes” in the country by MHRD with third rank under Swachh Campus Rankings 2019.

Student Support and Progression

As students are major stake holders in any institution, the institute believes in empowering students. Students are encouraged to become part of various committees to lend their voice on various issues related to them. Financial assistance is provided to merit students. Career counselling is provided and mentoring system is in place to take care of holistic development of students.

Key Highlights:

- Our students got opportunity to participate in “University Innovation Fellows” Program of Stanford University, San Francisco, California, USA
- One project from the ECE department secured first position at AICTE-ECI-ISTE Chhatra Viswakarma Awards-2019.

Our students achieved 7 gold medals at university level examinations and 37 pratibha awards by Andhra Pradesh state government.

Governance, Leadership and Management

The Institute practices decentralization and participative management in frequent consultation with the Governing Body (GB). The GB is responsible for the overall administration of the institution. The GB conducts regular meetings to supervise all functional bodies to achieve its mission and vision.

Academic Council (AC) is the highest authorizing body for all academic outcomes, and this council is in charge of making all departmental decisions. This unit is also responsible for scrutinization and approval of all academic proposals provided by the Board of Studies (BOS) from different departments. It also recommends new academic programmes and other academic matters to the GB, if required. This unit also acts as a mentor

for improving extracurricular activities in different departments.

The institution is well known for its good administrative practices, academic activities, infrastructure maintenance, and work culture. The Principal, Deans and HODs have a lot of freedom and are empowered with decision making to plan various activities.

Institutional Values and Best Practices

The institution is dedicated to quality and excellence in all of its operations, including teaching-learning, research, training, and governance. AEC aims to provide good learning experience in addition to making major contributions to society. The institute continually inspires students and teachers and offers a platform for the development of methodological skills, transdisciplinary skills, ethical and human values.

The institute adopted best practices related to academic excellence, research and development, social consciousness and lifelong learning.

Recognitions received:

AEC is recognized as “Best college in India” by Indian Astro Biology Research Centre (IARC), Centre for United Nations for successfully conducting Rio 24 program.

2. PROFILE

2.1 BASIC INFORMATION

| Name and Address of the College | |
|--|--|
| Name | ADITYA ENGINEERING COLLEGE |
| Address | Aditya Engineering College Aditya Nagar, ADB Road Surampalem |
| City | Surampalem |
| State | Andhra Pradesh |
| Pin | 533437 |
| Website | www.aec.edu.in |

| Contacts for Communication | | | | | |
|-----------------------------------|---------------------|--------------------------------|---------------|------------|----------------------|
| Designation | Name | Telephone with STD Code | Mobile | Fax | Email |
| Principal | M. Sreenivasa Reddy | 0884-2326202 | 9866576662 | - | principal@aec.edu.in |
| IQAC / CIQA coordinator | G. Suresh | 0884-2326203 | 7036266664 | - | dean_sb@aec.edu.in |

| Status of the Institution | |
|----------------------------------|----------------|
| Institution Status | 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 | 19-07-2001 |

| | |
|---|------------|
| 'Autonomy' | |
| Date of grant of 'Autonomy' to the College by UGC | 22-02-2017 |

| University to which the college is affiliated | | |
|--|--|-------------------------------|
| State | University name | Document |
| Andhra Pradesh | Jawaharlal Nehru Technological University,Kakinada | View Document |

| Details of UGC recognition | | |
|-----------------------------------|-------------|-------------------------------|
| Under Section | Date | View Document |
| 2f of UGC | 23-01-2012 | View Document |
| 12B of UGC | 01-05-2012 | View Document |

| 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 | View Document | 09-07-2022 | 12 | Every year approval is renewed upon fulfilling the AICTE norms |

| 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? | Yes |
| If yes, name of the agency | UNIVERSITY GRANTS COMMISSION |
| Date of recognition | 28-02-2017 |

| Location and Area of Campus | | | | |
|------------------------------------|--|------------------|-----------------------------|---------------------------------|
| Campus Type | Address | Location* | Campus Area in Acres | Built up Area in sq.mts. |
| Main campus area | Aditya Engineering College Aditya Nagar, ADB Road Surampalem | Rural | 25.98 | 35425 |

2.2 ACADEMIC INFORMATION

| Details of Programmes Offered by the College (Give Data for Current Academic year) | | | | | | |
|---|---|---------------------------|----------------------------|------------------------------|----------------------------|--------------------------------|
| Programme Level | Name of Programme/Course | Duration in Months | Entry Qualification | Medium of Instruction | Sanctioned Strength | No.of Students Admitted |
| UG | BTech,Civil Engineering | 48 | Intermediate | English | 60 | 47 |
| UG | BTech,Electrical And Electronics Engineering | 48 | Intermediate | English | 60 | 52 |
| UG | BTech,Mechanical Engineering | 48 | Intermediate | English | 60 | 45 |
| UG | BTech,Electronics And Communication Engineering | 48 | Intermediate | English | 240 | 237 |
| UG | BTech,Computer Science And Engineering | 48 | Intermediate | English | 180 | 179 |
| UG | BTech,Computer Science And Engineering | 48 | Intermediate | English | 180 | 179 |
| UG | BTech,Computer Science And Engineering | 48 | Intermediate | English | 60 | 60 |
| UG | BTech,Information Technology | 48 | Intermediate | English | 120 | 111 |
| UG | BTech,Petroleum Technology | 48 | Intermediate | English | 30 | 4 |
| UG | BTech,Minining Engineering | 48 | Intermediate | English | 30 | 6 |
| UG | BTech,Agric | 48 | Intermediate | English | 60 | 22 |

| | | | | | | |
|----|---|----|--------------|---------|-----|-----|
| | Cultural Engineering | | | | | |
| PG | Mtech,Civil Engineering | 24 | B.Tech | English | 12 | 12 |
| PG | Mtech,Electrical And Electronics Engineering | 24 | B.Tech | English | 12 | 6 |
| PG | Mtech,Mechanical Engineering | 24 | B.Tech | English | 12 | 6 |
| PG | Mtech,Electronics And Communication Engineering | 24 | B.Tech | English | 12 | 6 |
| PG | Mtech,Computer Science And Engineering | 24 | B.Tech | English | 18 | 15 |
| PG | Mtech,Petroleum Technology | 24 | B.Tech | English | 12 | 6 |
| PG | Integrated(PG),Management Studies | 60 | Intermediate | English | 60 | 52 |
| PG | MBA,Management Studies | 24 | UG Degree | English | 240 | 180 |
| PG | MCA,Master Of Computer Applications | 24 | UG Degree | English | 60 | 60 |

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 | 29 | | | | 85 | | | | 150 | | | |
| Recruited | 22 | 7 | 0 | 29 | 64 | 21 | 0 | 85 | 101 | 49 | 0 | 150 |
| 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 | | | | 508 |
| Recruited | 345 | 163 | 0 | 508 |
| 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 | | | | 77 |
| Recruited | 65 | 12 | 0 | 77 |
| Yet to Recruit | | | | 0 |

Qualification Details of the Teaching Staff

| Permanent Teachers | | | | | | | | | | |
|------------------------------|------------------|--------|--------|----------------------------|--------|--------|----------------------------|--------|--------|--------------|
| Highest Qualification | Professor | | | Associate Professor | | | Assistant Professor | | | Total |
| | Male | Female | Others | Male | Female | Others | Male | Female | Others | |
| D.sc/D.Litt/ LLD/DM/M CH | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ph.D. | 22 | 7 | 0 | 21 | 5 | 0 | 29 | 1 | 0 | 85 |
| M.Phil. | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 5 |
| PG | 0 | 0 | 0 | 40 | 14 | 0 | 72 | 48 | 0 | 174 |
| 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/M CH | 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/M CH | 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 |

| Details of Visting/Guest Faculties | | | | | | |
|---|-------------|---|---------------|---|---------------|--------------|
| Number of Visiting/Guest Faculty engaged with the college? | Male | | Female | | Others | Total |
| | 0 | 0 | 0 | 0 | | |

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

| Programme | | From the State Where College is Located | From Other States of India | NRI Students | Foreign Students | Total |
|------------------|--------|--|---------------------------------------|---------------------|-----------------------------|--------------|
| UG | Male | 598 | 28 | 0 | 13 | 639 |
| | Female | 407 | 2 | 0 | 0 | 409 |
| | Others | 0 | 0 | 0 | 0 | 0 |
| PG | Male | 188 | 0 | 0 | 0 | 188 |
| | Female | 155 | 0 | 0 | 0 | 155 |
| | Others | 0 | 0 | 0 | 0 | 0 |
| Diploma | Male | 0 | 0 | 0 | 0 | 0 |
| | Female | 0 | 0 | 0 | 0 | 0 |
| | 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 | 79 | 79 | 108 | 76 |
| | Female | 36 | 38 | 33 | 62 |
| | Others | 0 | 0 | 0 | 0 |
| ST | Male | 24 | 36 | 39 | 33 |
| | Female | 13 | 14 | 11 | 21 |
| | Others | 0 | 0 | 0 | 0 |
| OBC | Male | 169 | 167 | 191 | 192 |
| | Female | 85 | 85 | 80 | 85 |
| | Others | 0 | 0 | 0 | 0 |
| General | Male | 535 | 580 | 541 | 551 |
| | Female | 302 | 317 | 235 | 254 |
| | Others | 0 | 0 | 0 | 0 |
| Others | Male | 13 | 15 | 19 | 15 |
| | Female | 13 | 8 | 8 | 7 |
| | Others | 0 | 0 | 0 | 0 |
| Total | | 1269 | 1339 | 1265 | 1296 |

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

| Department Name | Upload Report |
|---|-------------------------------|
| Agricultural Engineering | View Document |
| Civil Engineering | View Document |
| Computer Science And Engineering | View Document |
| Electrical And Electronics Engineering | View Document |
| Electronics And Communication Engineering | View Document |
| Information Technology | View Document |
| Management Studies | View Document |
| Master Of Computer Applications | View Document |
| Mechanical Engineering | View Document |
| Mining Engineering | View Document |
| Petroleum Technology | View Document |

Institutional preparedness for NEP

| | |
|---|--|
| 1. Multidisciplinary/interdisciplinary: | In view with the current changing trends in technology, the institute incorporated interdisciplinary/multi-disciplinary courses into the curriculum. As proposed by the model curriculum of AICTE, the institute integrates various interdisciplinary courses into the curriculum via basic science courses, humanities and social science courses, engineering science courses and management courses. students are extensively trained in new age skills through various skill development activities. |
| 2. Academic bank of credits (ABC): | The institute is registered with National Academic Depository (NAD) that would store the credit scores obtained by students in an online platform. The institute is prepared to implement academic bank of credits as per the guidelines given by affiliating university time to time. |
| 3. Skill development: | As new age skills are required for employability, the institute initiated various skill development programs through internal training division technical hub, Andhra Pradesh state skill development centre. students are encouraged to participate in various skill development activities through these centres resulting |

| | |
|--|---|
| | in certifications which help the students to secure employment. Apart from this, students are also exposed to constitutional ideas, professional ethics, human values through various mandatory courses. |
| 4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course): | The institute incorporated Essence of Indian Traditional Knowledge as a mandatory course into the curriculum through which students are exposed to need for and importance of protecting indian traditional knowledge related to science, engineering, agriculture and medicine. Apart from this, students are sensitised in universal human values during the induction program. |
| 5. Focus on Outcome based education (OBE): | The institute is committed to create, sustain and improve the learning process through total quality management and create itself a position in scientific and technological learning. The institute strives to attain these objectives through continuous improvement and team work. The priority and thrust area of the institute is implementation of outcome based education in teaching-learning as it forms the integral part. As OBE is need of the hour, the institute focussed on training all the faculty members on outcome based education to achieve a paradigm shift from the teacher centric education system. Accordingly, there is a need to define, develop, implement and measure student learning through the attainment of various outcomes ensuring graduating engineers from all programs demonstrate expected skill and competency. Achieving this is a challenging task and required participation of all stakeholders in the design of curriculum. The institute in coordination with all the stakeholders adopted the OBE model for attainment of Graduate Attributes. The institute strives to make the students accomplish Graduate Attributes by focusing on the following thrust areas: Academic excellence: The curriculum is designed to encourage analytical and problem solving skills. Emerging technology courses like Data Science, Internet of Things and Robotics are introduced in to the curriculum. Usage of online tools for teaching learning is increased significantly. Faculty and students are encouraged to complete certification courses through various MOOCs platforms Research and Development: Research and development is a main component in HEI to offer viable and cost effective solutions to the societal and industrial problems. Students and staff are |

| | |
|---|--|
| | <p>encouraged to pursue research and prototype development by providing necessary infrastructure support. This imbibes investigation and design abilities among staff and students. This can be achieved by encouraging students to undertake major and minor projects.</p> <p>Social Consciousness: The institute encourages faculty and students to participate in various extension activities. This will create a sense of social responsibility, environmental consciousness and sustainability in the minds of students. The institute has an NSS Unit and Leo club through which all these activities are conducted.</p> <p>Communication Skills and Team work: There is a growing demand for language proficiency which is a main factor for employability in various sectors and to pursue higher studies. In this regard, courses on English communication skills and Employability skills are included in the curriculum. As most of the students are from rural and vernacular background, to provide them a competitive advantage, communication skills training is offered through Campus Communication Skills Centre. The Campus Communication Centre provides a suitable platform for the students to prove themselves by participating in the language tasks and competitions with higher levels of motivation and with its gaming element within and beyond college hours. Students are encouraged towards peer learning to inculcate the spirit of teamwork. Through academic excellence, research and development, social consciousness and leadership, the institute aims to create lifelong learning ability among students.</p> |
| 6. Distance education/online education: | <p>The institute participated extensively in MOOC's through NPTEL courses since 2017. students and faculty are encouraged to complete various certification courses offered by SWAYAM, Coursera. students are offered flexibility to complete two elective courses through NPTEL. The institute is recognised as a valuable local chapter with a rating of A and AA based on performance in online certifications during the years 2018 and 2019 respectively. The institute is also recognised as a remote centre for IIT Bombay Spoken Tutorial project funded by the National Mission on Education through Information and Communication Technology (ICT). Students and staff are extensively trained in various courses through spoken tutorial.</p> |

Institutional Initiatives for Electoral Literacy

| | |
|--|--|
| 1. Whether Electoral Literacy Club (ELC) has been set up in the College? | Yes |
| 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? | Yes |
| 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. | The students of our institute assisted district election administration in conduct of poll. |
| 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. | The institute organized awareness programs to students on the importance of casting vote. |
| 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 institute, time to time, sensitizes and motivates the students to enroll themselves as voters. The institute takes active part in the enrollment campaign of state election commission for voter registration. |

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

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

1.2

Number of departments offering academic programmes

Response: 11

2 Students

2.1

Number of students year-wise during last five years

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------|-------------------------------|---------|---------|
| 4952 | 4855 | 4657 | 4830 | 4861 |
| File Description | | Document | | |
| Institutional data in prescribed format | | View Document | | |

2.2

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------|-------------------------------|---------|---------|
| 1189 | 1282 | 1021 | 1078 | 1085 |
| File Description | | Document | | |
| Institutional data in prescribed format | | View Document | | |

2.3

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------|---------|-------------------------------|---------|
| 4821 | 4793 | 4616 | 4748 | 4749 |
| File Description | | | Document | |
| Institutional data in prescribed format | | | View Document | |

2.4

Number of revaluation applications year-wise during last five years

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 14 | 11 | 10 | 7 | 8 |

3 Teachers**3.1**

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------|---------|-------------------------------|---------|
| 1106 | 1087 | 944 | 922 | 885 |
| File Description | | | Document | |
| Institutional data in prescribed format | | | View Document | |

3.2

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------|---------|-------------------------------|---------|
| 264 | 256 | 248 | 256 | 257 |
| File Description | | | Document | |
| Institutional data in prescribed format | | | View Document | |

3.3

Number of sanctioned posts year-wise during last five years

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------|---------|-------------------------------|---------|
| 264 | 265 | 274 | 271 | 271 |
| File Description | | | Document | |
| Institutional data in prescribed format | | | View Document | |

4 Institution**4.1****Number of eligible applications received for admissions to all the programs year-wise during last five years**

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------|---------|-------------------------------|---------|
| 1657 | 1624 | 1539 | 1526 | 1331 |
| File Description | | | Document | |
| Institutional data in prescribed format | | | View Document | |

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---|---------|---------|-------------------------------|---------|
| 465 | 470 | 500 | 505 | 505 |
| File Description | | | Document | |
| Institutional data in prescribed format | | | View Document | |

4.3**Total number of classrooms and seminar halls****Response: 106****4.4****Total number of computers in the campus for academic purpose****Response: 1262**

4.5

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 1713.13 | 1842.5 | 2234.50 | 2181.59 | 1801.28 |

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

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

Response:

The Curriculum Design and Development of Aditya Engineering College are on par with the requirements for graduate attributes defined by various accreditation agencies. The processes, techniques, and structures that makeup AEC always ensure that standards are met. The curriculum is developed by Board of Studies in collaboration with several expert groups and input from various stakeholders in such a way that students demonstrate essential technical knowledge, skills and abilities needed for professional practice. This results in programs that are relevant to students' professional and personal goals and are flexible enough to accommodate both skills and values.

Every program of the institute has well defined Program Educational Objectives (PEOs), Program Specific Outcomes (PSOs), and Program Outcomes (POs). Further, in alignment with the Outcome Based Education (OBE) philosophy, the designed curriculum addresses pertinent societal and industrial requirements at local, national, and global level.

The institute follows the guidelines given by the regulatory bodies for the curriculum design. The model curriculum proposed by AICTE, Andhra Pradesh State Council for Higher education (APSCHE), and affiliating university JNTUK are considered for the development and revision of the curriculum. The curriculum is revised based on the feedback and the suggestions from various stake holders such as industry, academia, alumni, faculty and students. The syllabus of GATE/various central or state level competitive exams are also considered for the curriculum revision.

The curriculum is presented in the Board of Studies (BoS) of the respective programme for their suggestions and the same is ratified in the Academic Council (AC) meeting. The philosophy of curriculum design is aimed at providing holistic education and improve the academic standards to achieve excellence.

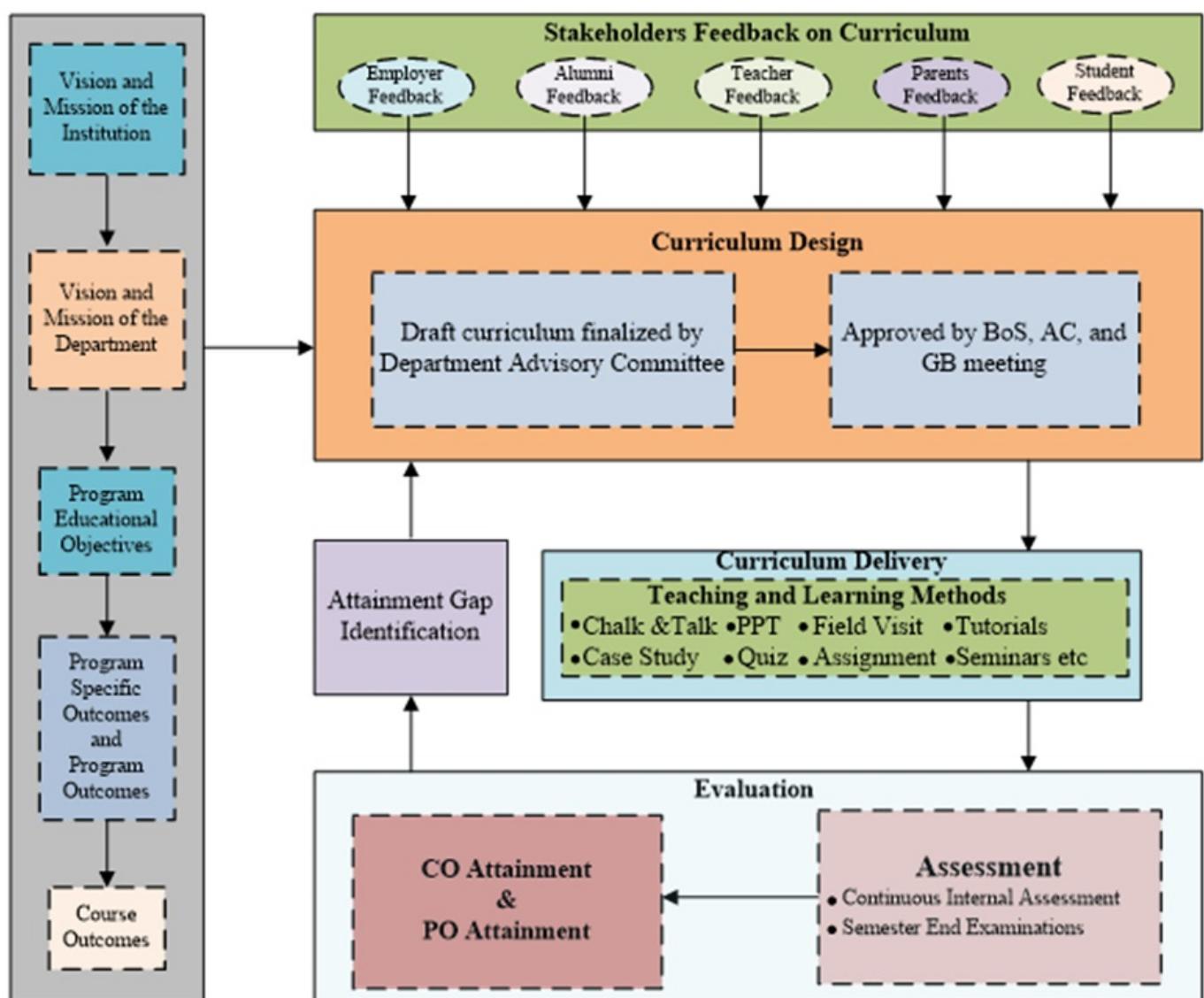
The academic programs at AEC have an emphasis on employability, entrepreneurship, and skills. The primary focus is on academic flexibility, which enables students to have more latitude in elective courses/ choice-based credit system and inter-disciplinary opportunities. Value added courses are introduced as part of institute effort for the purpose of student development.

The OBE-based curriculum addresses the holistic development of students. This is attempted by prescribing dynamic and updated curricular inputs. The institute explores provision for additional courses and activities to sensitize students towards cross-cutting issues relevant to current pressing concerns nationally and internationally such as gender equity, environment and sustainability, human values and professional ethics, and development of creative and divergent competencies.

The institute priorities of curriculum modification and revision are driven by recent innovations as well as

feedback from stakeholders. The feedback provided by all relevant stakeholders helps to enrich the curriculum.

Evolution of Program Curriculum



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

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

Response: 95.24

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

Response: 21

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

Response: 20

| File Description | Document |
|---|-------------------------------|
| Minutes of relevant Academic Council/BOS meeting | View Document |
| Details of program syllabus revision in last 5 years(Data Template) | View Document |
| Any additional information | View Document |

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

Response: 88.05

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 978 | 948 | 812 | 829 | 785 |

| File Description | Document |
|--|-------------------------------|
| Programme / Curriculum/ Syllabus of the courses | View Document |
| Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses | View Document |
| Average percentage of courses having focus on employability/ entrepreneurship(Data Template) | View Document |
| Any additional information | View Document |

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

Response: 15.03

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

Response: 743

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

Response: 4944

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

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

Response: 100

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

Response: 19

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

1.3 Curriculum Enrichment

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

Response:

AEC has a strong commitment to address cross-cutting issues, which are issues that have been deemed important and that affect and are relevant to most or all aspects of development. As a result, consideration of these issues ought to be built into each and every stage of the curriculum delivery process, beginning with the formulation of policies and continuing through their application, evaluation, and refinement. As a component of the educational program, many different activities are planned throughout the year to assist in the accomplishment of this goal.

In accordance with the AICTE model curriculum and APSCHE guidelines, the Institute has designed the curriculum by integrating cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability. Apart from this, students are encouraged to participate actively in various

co-curricular activities related to human values, gender equity, environment and sustainability.

Professional Ethics and Human Values:

The institute emphasizes value education through several unique courses like Professional Ethics and Human Values, Intellectual property rights and Patents, Stress management to inculcate the workplace etiquette and ethics to balance personal and professional life. The institute aims to sensitize the students towards human values by offering Universal Human Values course in the induction programme.

Further, to retain the fervour and spirit of unity, the institute celebrates events like Republic Day, Independence Day, National Unity Day, National Youth Day, Gandhi Jayanti, and other significant days.

Gender:

The institute is conscious of providing equal opportunities for men and women and prepares women to assume leadership roles in all walks of life through co-curricular activities.

The Institute has “Internal Complaints Committee” which builds the confidence of the women by addressing the issues related to gender discrimination. It counsels the students under reported cases of sexual harassment or any kind of gender discrimination and initiates immediate action towards the grievances. The committee conducts workshops with a motive to educate female students about self-defence and skill development. The committee also works to improve the status of women and their economic empowerment.

Environment and Sustainability:

To sensitize the students towards the green initiatives and sustainability, the Curriculum is designed with courses like Environmental Science, Environmental Impact assessment and Management, Environmental pollution and control, Air pollution Engineering, Disaster Management, Industrial waste and Waste water engineering, Environmental remediation and contaminated sites etc., These Courses are intended to facilitate the students to understand the environmental issues and develop environment consciousness among the students.

The Institute has NSS unit, Leo club, and Eco club to sensitize the students towards cleanliness, environmental protection and conservation of energy.

Courses offered Related to Gender, Environment and Sustainability, Human Values and Professional Ethics:

1. 171CE7E14_Environmental Impact Assessment and Management.
2. 192MC1A02_Disaster Management.
3. 191MC3A04_Essence of Indian Traditional Knowledge.
4. 201MC1T01_Environmental Science.
5. 201MC2T02_Constitution of India.

6. 201MC3T03_Biology for Engineers.

| File Description | Document |
|---|-------------------------------|
| Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.**Response:** 102**1.3.2.1 How many new value-added courses are added within the last five years**

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 22 | 10 | 24 | 24 | 22 |

| File Description | Document |
|--|-------------------------------|
| List of value added courses (Data Template) | View Document |
| Brochure or any other document relating to value added courses | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.**Response:** 63.53**1.3.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years**

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 3413 | 1983 | 3263 | 3367 | 3311 |

| File Description | Document |
|---------------------------------|-------------------------------|
| List of students enrolled | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

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

Response: 74.27

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

Response: 3678

| File Description | Document |
|---|-------------------------------|
| List of programs and number of students undertaking field projects / internships / student projects (Data Template) | View Document |
| Any additional information | View Document |

1.4 Feedback System

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

Response: A. All 4 of the above

| File Description | Document |
|---|-------------------------------|
| Any additional information | View Document |
| Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management | View Document |
| URL for stakeholder feedback report | View Document |
| Link for Additional Information | View Document |

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

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

| File Description | Document |
|-------------------------------------|-------------------------------|
| Any additional information | View Document |
| URL for stakeholder feedback report | View Document |
| Link for Additional Information | View Document |

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 92.41

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 1269 | 1339 | 1265 | 1296 | 1316 |

2.1.1.2 Number of sanctioned seats year wise during last five years

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 1338 | 1359 | 1437 | 1446 | 1446 |

| File Description | Document |
|---|-------------------------------|
| Institutional data in prescribed format (Data Template) | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

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

Response: 94.02

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 432 | 442 | 489 | 491 | 445 |

| File Description | Document |
|---|-------------------------------|
| Institutional data in prescribed format | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

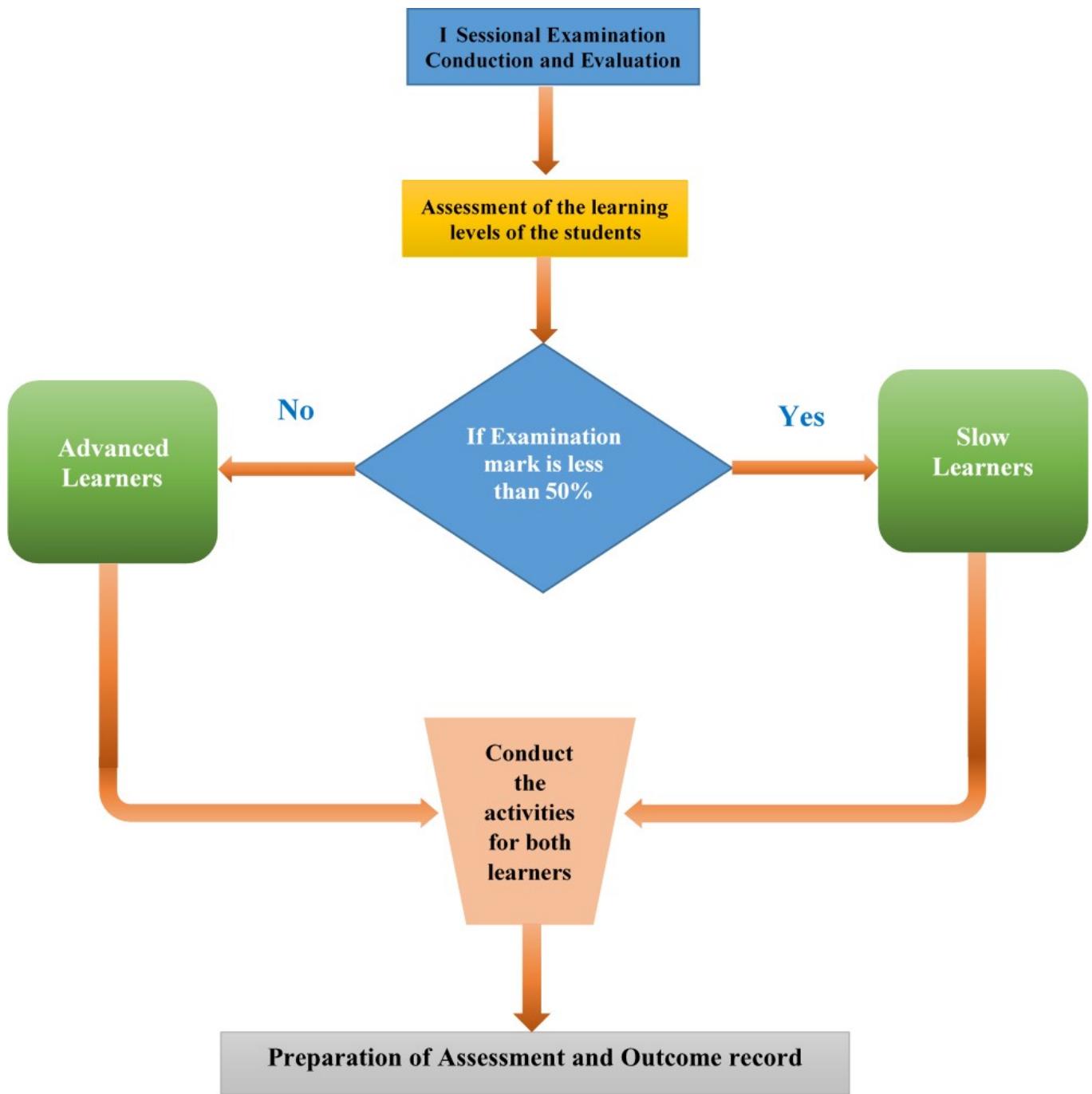
2.2 Catering to Student Diversity

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

Response:

The institution promotes a learner-centered approach in accordance with the Outcome-based Education (OBE) principles. Throughout the course of study, each student receives individual attention. The institute uses a systematic approach to help slow learners and advanced learners improve their skills.

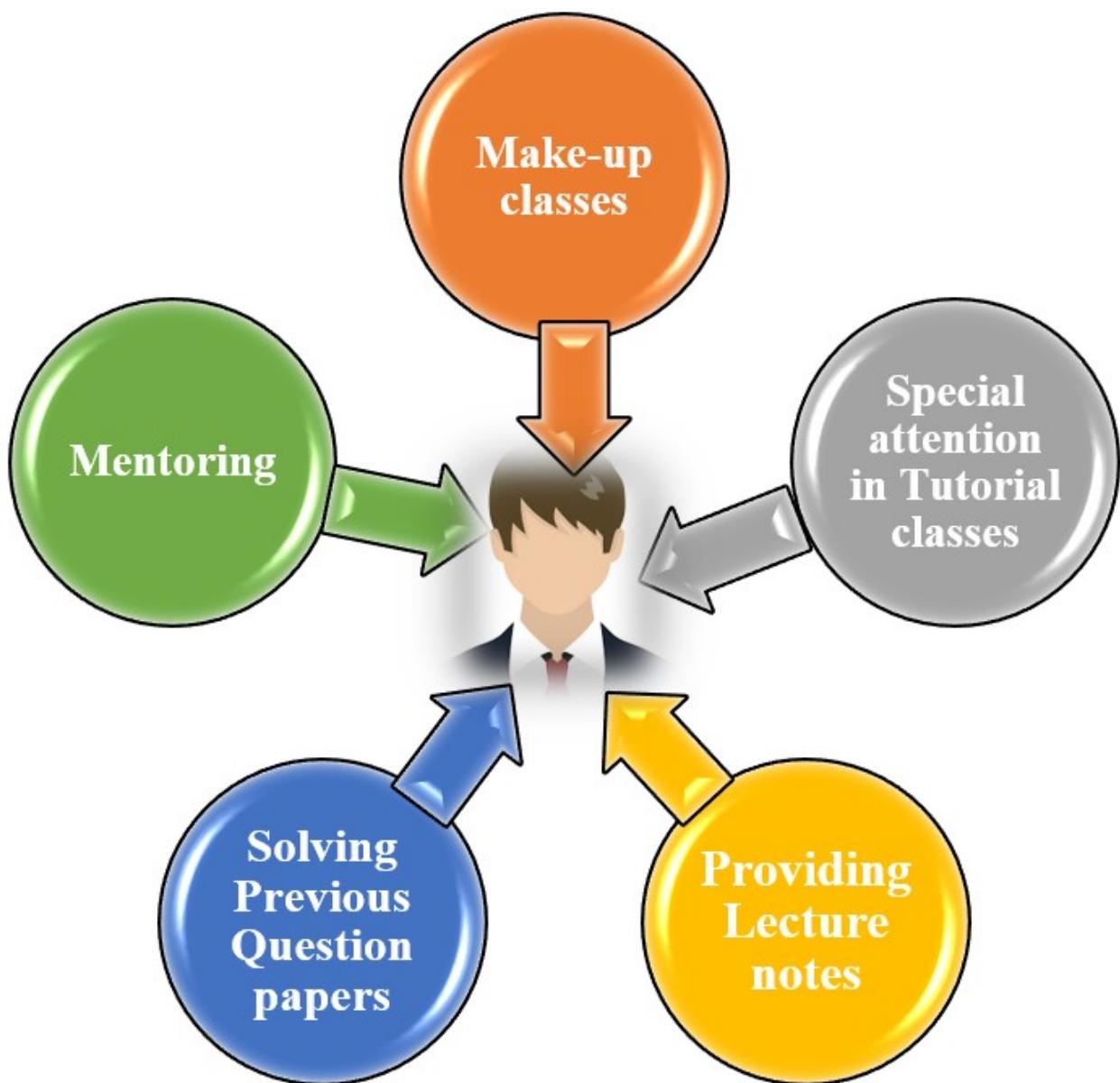
The academic performance of the students is monitored by the respective departments. Each department HoD appoints one faculty member as a course coordinator for each course to coordinate the other faculty teaching the same course in terms of course delivery, assessment, and evaluation. Learners are classified as slow or advanced based on their performance in the first sessional examination. If a student secures less than 50 percent of marks, he or she is considered a slow learner. if the student secures more than 50 percent of marks, he or she is considered as an advanced learner.



Slow Learners:

For slow learners, the following activities are carried out:

- Make-up classes are held on specific days outside of the regular class schedule for each course to assist slow learners in improving their performance.
- For better understanding, concepts are explained in the student's native language during make-up classes.
- The mentor provides academic and personal guidance to slow learners.
- Students are given lecture notes and encouraged to practice previous exam questions.
- A strong emphasis is placed on the development of soft and communication skills in order for students from rural backgrounds to compete with their peers.



Advanced learners:

For advanced learners, the following activities are held:

- Encouragement by the mentors to pursue creative projects in order to compete in various contests.
- GATE coaching is provided to advanced learners, and students are encouraged to attend these classes to reinforce their core concepts.
- Internships are encouraged for students to gain experience with technology, people, and projects that may be relevant to their career goals.
- Students are encouraged to participate in paper presentations, poster presentations, seminars, workshops, and other activities.
- Students are sponsored for presenting research articles at various conferences.
- MOOCs encourage students to learn new skills for the digital age. The institute awards cash prizes to students who achieve elite silver and elite gold in the NPTEL courses.
- Students are encouraged further to prepare for the competitive examinations.



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

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

Response: 19:1

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

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

Response:

Aditya Engineering College provides students the latest skills, information, attitudes, and values to affect their behaviour. Every Department offers cutting-edge activities that foster creative potential, sharpen problem-solving skills, and ensure student participation. Students showcase their knowledge at the institute's annual technical event. Students are encouraged to compete at university level competitions and national level competitions.

The institute stresses on student-centered initiatives to promote lifelong learning. The faculty uses the student-centered practices mentioned below to make learning more enjoyable.

Experiential Learning:

Each department adopts experiential learning to boost creativity & cognitive abilities and conducts activities to enhance students' experiential learning.

- Summer internships give students practical experience.

- SWAYAM, NMEICT-Spoken Tutorial, Coursera, and other MOOCs platforms for self-learning.
- Students are encouraged to build technology-based projects and display working prototypes at technical festivals.
- Industrial visits provide hands-on learning experience.
- Students are encouraged to complete certification courses offered by Microsoft, Google, CISCO etc., to increase competency.
- Simulated activities, such as Hackathons, provide students with real-world experience.
- Skill oriented laboratories, in collaboration with SIEMENS, DASSAULT, IBM, ORACLE, CISCO etc., are established to cater to the student's skill development in the latest technologies.

Participatory Learning:

Involves seminars, group debates, poster presentation, projects, and skill-based add-on programs. Students are encouraged to participate in skill-based activities to improve management and technical skills. Participative learning is encouraged among students through

- Intra and inter-college events like seminars, paper presentations, poster presentations, projects, etc.,
- Various co-curricular/extra-curricular competitions
- Peer interactions

Problem Solving Methodologies

Students are given one-on-one attention to improve their problem-solving abilities through

- Tutorial classes
- Quiz
- Case Studies
- Simulations
- Assignments

Project Based Learning

Students are exposed to higher level thinking, collaboration and problem-solving skills through minor and major projects. Team of students participate together to provide a solution to societal or industrial problems.

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

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

Response:

The Institute advocates the use of ICT-enabled tools including online materials to improve teaching and learning. All faculty members implement the teaching-learning process using the available ICT-enabled resources.

The institution supports the extensive use of ICT tools and online resources for effective teaching and learning process. In this regard, classrooms, seminar halls, activity rooms and labs are provided with ICT facilities such as LCD projectors, computers with high-speed internet access and wi-fi facilities to help students learn concepts more readily by visualisation. Each department is provided with smart writing pads to facilitate the involvement in learning courses such as Mathematics, Engineering Mechanics etc. The lecture notes and powerpoint presentations are uploaded in Microsoft Teams to provide easy access to the e-resources.

Virtual labs are used to conduct labs through simulations. Animations are used in PPTs for a better understanding of the concepts. Concept maps and mind maps are prepared using online drawing tools to present the concepts. The teaching learning centre (NMEICT) of IIT Bombay recognises the institute as a remote centre. Through this centre, many training programmes are conducted online for the students. The institute, in association with L4G solutions, provided all students and faculty free access to Coursera online courses during the COVID-19 pandemic period.

All faculty members implement the teaching-learning process using the available ICT-enabled resources. A significant proportion of faculty members use learning materials created by them and the demonstrations available on SWAYAM, NPTEL, YouTube, and Coursera. A media centre is established to record video lectures and develop e-content instructional materials.

The central library of the institute is equipped with ICT tools. A digital library allows remote access to e-resources, e-journal articles, and e-books. The institute, in association with KNIMBUS, offers free online access to journals and magazines to the students and faculty. Online Public Access Catalog (OPAC) is available to search the catalogue of library materials.

| File Description | Document |
|--|-------------------------------|
| Any additional information | View Document |
| Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process | View Document |
| Link for Additional Information | View Document |

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

Response: 19:1

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

Response: 263

| File Description | Document |
|--|-------------------------------|
| Upload year wise, number of students enrolled and full time teachers on roll | View Document |
| Circulars pertaining to assigning mentors to mentees | View Document |
| Any additional information | View Document |
| Link for additional information | View Document |

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

Response:

Academic Calendar:

The Dean (Academics) prepares an academic calendar at the beginning of academic year that includes 16 weeks of teaching and an examination schedule. Upon approval by the Principal, it is made available to faculty and students one month before the commencement of the classwork. The approved academic calendar is disseminated to all stakeholders and is made available on the institute website <https://aec.edu.in/?p=Academic-Calenders>

The event calendar of each department is prepared by respective HODs based on the academic calendar to accommodate co-curricular events such as workshops, conferences, seminars, and guest lectures. Extracurricular activities are planned through various clubs. The institute adheres to the academic calendar, except in the case of unforeseen situations. The Principal is authorized to change the academic calendar under unavoidable circumstances.

Teaching Plan:

The Heads of respective departments prepare the course allotment for each semester. The Course coordinator / Course instructor(s) prepares a lesson plan for the course in line with the Academic calendar. The lesson plan is prepared as per the accepted format/template mentioning the teaching mode of each topic. In the course coordinator meeting, the draft lesson plan is finalised. The HoD scrutinises the lesson plan as per the Academic calendar.

The course instructor records the topic covered on the ‘Diary of lectures’ page in the student attendance register. The HoD monitors the syllabus coverage every fortnight to oversee the execution of the lesson plan and a report is submitted to the Dean (Academics).

Any deviation from the lesson plan should be compensated by taking extra classes.

| File Description | Document |
|--|-------------------------------|
| Upload Academic Calendar and Teaching plans for five years | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

2.4 Teacher Profile and Quality

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

Response: 95.28

| File Description | Document |
|--|-------------------------------|
| Year wise full time teachers and sanctioned posts for 5 years(Data Template) | View Document |
| List of the faculty members authenticated by the Head of HEI | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

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

Response: 21.02

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 85 | 65 | 54 | 38 | 28 |

| File Description | Document |
|---|-------------------------------|
| Institutional data in prescribed format (Data Template) | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

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

Response: 8.14

2.4.3.1 Total experience of full-time teachers

Response: 2150

| File Description | Document |
|---|-------------------------------|
| Institutional data in prescribed format | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

2.5 Evaluation Process and Reforms

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

Response: 8.58

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 9.44 | 9.67 | 8.5 | 8.3 | 7 |

| File Description | Document |
|---|-------------------------------|
| Institutional data in prescribed format (Data Template) | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

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

Response: 0.21

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 14 | 11 | 10 | 7 | 8 |

| File Description | Document |
|--|-------------------------------|
| Number of complaints and total number of students appeared year wise | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

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

Response:

The institution's examination reforms keep its examination system open for revision to strengthen it from time to time, making the system fool-proof. In line with statutory requirements, the examination management system is kept up to date. All examination tasks have been connected with the Examination Management System using Bee's Examination Tool (BET).

- All examination activities mentioned below are managed through Examination Management System integrated to Bee's Examination Tool (BET).
 - Preparation of the list of eligible students for the examination
 - Payment of examination fee
 - Publish examination schedules
 - Generation of hall tickets
 - Print the bar codes on OMR sheets
 - Generation of D-form
 - Evaluation of answer script in online mode
 - Declaration of results
 - Viewing facility of answer script to students
 - Issuing of grade cards

Continuous Internal Assessment (CIA) includes sessional examinations twice in a semester for each course, periodical assignments/tests/quizzes etc. to keep the students meaningfully engaged with the course content throughout the semester. The sessional examination evaluation, script viewing by students and publishing of the sessional marks are made online through BET. BET is also used to conduct the evaluation of the semester end examination, as well as the viewing of the answer script by students and the publication of the results. The Controller of Examinations addresses any grievances that arise from students related to the above aspects.

| Reforms | Positive Impacts |
|---|---|
| For each course, four sets of question papers are prepared for Semester End Examination (SEE) | <ul style="list-style-type: none"> • Confidentiality in question paper selection. • Avoid the leakage of question papers. |
| Formation of an observation team in SEE comprising of senior faculty members | <ul style="list-style-type: none"> • Examinations are conducted smoothly. |
| CCTV provision in Examination Cell and Evaluation Centre | <ul style="list-style-type: none"> • Restricts the movement of unauthorized persons into Examination Cell. • The activities in the Evaluation Centre can be monitored continuously. |
| Biometric access | <ul style="list-style-type: none"> • Unauthorized access to the Examination Cell is prohibited. • The examination management system's security is improved. |
| Chief examiner in the evaluation. | <ul style="list-style-type: none"> • Ensures the consistency of evaluation done by evaluation centre. |
| Inclusion of security features in grade cards | <ul style="list-style-type: none"> • Improve the authenticity of the grade card. |
| OMR booklet with barcode | <ul style="list-style-type: none"> • Faster data processing. • No room for error and no scope for manipulation. |
| The Examination Management System has been completely automated. | <ul style="list-style-type: none"> • Overall speed, reliability, security, transparency and confidentiality have improved significantly. |
| Online Valuation | <ul style="list-style-type: none"> • Ease of handling and faster evaluation leads to the declaration of the results in a short span. |

Due to these reforms, considerable improvement is observed in the process of examination management of the institute.

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

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.

Response:

Outcome-Based Education (OBE) was adopted by the Institute in 2017 to provide education through a learner-centred approach and an outcome-oriented teaching and learning process. It is standard practice to develop Programme Educational Objectives (PEOs), Programme Outcomes (POs), and Programme Specific Outcomes (PSOs) for each undergraduate and graduate program. Course Outcomes, often known as COs, are developed for each individual course that makes up the program.

Program educational objectives, often known as PEOs, are broad statements describing the academic and professional achievements the program expects its alumni to attain after completing the program. Program outcomes, sometimes known as POs, are statements that detail what it is hoped that students have learned and be able to achieve by the time they graduate. The program outcomes (POs) focus on the students'

knowledge, abilities, and behaviour as they advance through their course of study. Program Outcomes, or POs, are characteristics of graduates that have been deemed acceptable by the National Board of Accreditation (NBA). The Programme Specific Outcomes, also known as PSOs, are the micro-level skill requirements and accomplishment benchmarks that students must meet by the time they graduate from their respective programs.

The program of study consists of classes in subjects such as Fundamental Sciences, Humanities and Social Sciences, Engineering and Technology, Professional and Open Electives, as well as Projects and Seminars. Each course contributes to the overall learning objectives, representing the information and abilities required of a graduate. The course outcomes (COs) outline the knowledge, talents, and behaviour that a student should demonstrate. Each course contains four to six COs that meet the requirements of the appropriate levels of Bloom's Taxonomy, covering both the cognitive and the knowledge spheres. These COs are revised, updated, and reframed in response to changes in the course material and are altered as necessary. These Course Objectives (COs) must be approved by the relevant Board of Studies (BoS). In order to establish a connection between the course outcomes, program outcomes and program-specific outcomes, correlation matrices are developed. These matrices classify the correlation as High (3), Medium (2), or Low (1), depending on how relevant the COs are in comparison to the PSOs and POs.

To ensure that all stakeholders have access to relevant information, the Vision and Mission of the institution, department, as well as all Undergraduate and Postgraduate Course Outcomes (COs), Programme Outcomes (POs), Programme Educational Objectives (PEO), and Programme Specific Outcomes (PSOs), are published on the Institute Website.

Additionally, copies of the Programme Outcomes (POs), Programme Educational Objectives (PEOs), and Programme Specific Outcomes (PSOs) can be found in the following locations:

- Classrooms
- Laboratories
- Department corridors
- Syllabus book
- Student attendance register
- Lab manuals
- Lab records

| File Description | Document |
|--|-------------------------------|
| Upload COs for all courses (exemplars from Glossary) | View Document |
| Any additional information | View Document |
| Link for Additional Information | View Document |

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

Response:

Initially, the Course Outcomes (COs) for each Course are mapped to the Programme Outcomes (POs) and the Programme Specific Outcomes (PSOs), according to the degree to which their relevance is low (1), moderate (2), or substantial (3). The strength of the CO-PO-PSO mapping relationship is determined by averaging the mapping levels of the COs for each of the POs, denoted as Mapping Strength of PO.

Course Outcome Attainment will have two components i.e., Direct component and Indirect component. Direct component, which consists of both sessional and semester-end examinations, is given a weightage of 90 % in calculating CO attainment. In contrast, Indirect component receives a weightage of 10 % (Course exit survey).

For Direct component, at the beginning of each semester, the course instructor will specify the target values that must be reached for CO attainment. At the end of the semester, the attainments are calculated and gaps are identified. Action taken report is prepared, which indicates the measures that need to be taken to bridge the attainment gap.

At the end of each semester, the course exit survey is carried out to collect data for the Indirect component. The students respond about the extent to which they have achieved the competencies outlined in the Course Outcomes. The Indirect component of a Course is calculated as Weighted Average of the Students' responses using the Rubrics as Strongly Agree (5), Agree (4), Neutral (3), Disagree (2) and Strongly Disagree (1).

Final Course Outcome Attainment will be calculated using the formula.

$$\text{CO Attainment} = (0.9) \times \text{Direct component} + (0.1) \times \text{Indirect component}$$

Program Outcome & Program Specific Outcome Attainment

Program Outcome & Program Specific Outcome Assessment will have two components namely, Direct component and Indirect component.

Direct Component will be calculated from the Course Outcome Attainment and CO-PO-PSO matrix.

Indirect Component will be calculated from different Survey reports.

PO Attainment –Direct Component

Program Outcome attainment for a Single Course is calculated using the formula taking the input data from CO Attainments & CO-PO-PSO matrix as:

Direct PO Attainment

$$= \frac{\text{Mapping Strength}}{3} \times \text{Average of CO Attainments of Mapped COs}$$

Similarly, Direct PO attainment for all the courses will be calculated.

The Consolidated Direct PO attainment of all the courses will be the Arithmetic average of Direct PO attainments of all the courses.

PO Attainment –Indirect Component

At the end of the Program, different surveys like Program Exit Survey, Alumni Survey, Parents' Survey and Employer Survey are conducted. The responses from the stakeholders are recorded.

The Attainment of a Survey is calculated as Weighted averages of responses using the Rubrics as Strongly Agree (5), Agree(4), Neutral (3), Disagree (2) and Strongly Disagree (1).

Consolidated Indirect component of PO/PSO assessment will be Arithmetic Average of all the attainment values of surveys conducted.

Final PO/PSO Attainment will be calculated using the formula as.

Final PO/PSO attainment

$$= (0.9 \times \text{Direct PO - PSO attainment}) + (0.1 \times \text{Indirect PO - PSO attainment})$$

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

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

Response: 95.89

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

Response: 1189

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

Response: 1240

| File Description | Document |
|---|-------------------------------|
| Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template) | View Document |
| Any additional information | View Document |
| Link for the annual report | View Document |
| Link for additional information | View Document |

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 3.96

| File Description | Document |
|--|-------------------------------|
| Upload database of all currently enrolled students | View Document |
| Link for any additional information | View Document |

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

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

Response:

The institute has research facilities to carry out scientific research. The research facilities are updated frequently, and a well-defined research policy is in place to promote research. The institute has constituted Research Advisory Committee which oversees all activities related to research facilities and promotion. The research advisory committee endeavours to:

- Create awareness on opportunities in research and development among students and faculty.
- Motivate faculty and students to take up research projects and upgrade qualifications by registering for doctoral programs.
- Monitor the quality of dissertations, thesis topics and research reports.
- Explore possibilities of research collaborations at national and international level for long term research goals.
- Drive the departments to undertake research activities and development projects offered by agencies like DST, SERB, AICTE, DSIR and UGC.

Research Promotion:

Research culture is promoted in the institute through:

- Guidance from senior faculty is offered to active researchers and research enthusiasts towards developing skills of scholarly enquiry to disseminate their knowledge.
- Mentoring by senior scientists and academicians from higher learning institutions to undertake research projects.
- Training on various technologies/software to leverage the skills of the faculty.
- Conducting workshops on Research methodologies and IPR.
- Incentives to faculty for journal publications, conferences, publishing books and patents.
- Providing technical and financial support for patenting an idea.
- Providing academic leaves for research work.
- Continuous augmentation of labs with latest equipment and software.
- Providing seed money to faculty and students to initiate their research.

Research Facilities:

The institute has well equipped laboratories enabling the faculty and students to carry out research. Further, the institute has research centers granted by JNTU Kakinada for the departments of EEE, ME, ECE, PT and CSE.

Further, to provide quality research article access for faculty and students the institute has subscribed to Scopus database. For dissemination of research findings properly to the public domain, researchers are provided with an anti-plagiarism software iThenticate.

| File Description | Document |
|---|-------------------------------|
| Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption | View Document |
| Any additional information | View Document |
| URL of Policy document on promotion of research uploaded on website | View Document |

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

Response: 13.75

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 11.68 | 10.15 | 26.28 | 11.7 | 8.93 |

| File Description | Document |
|---|-------------------------------|
| Minutes of the relevant bodies of the Institution | View Document |
| List of teachers receiving grant and details of grant received | View Document |
| Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized | View Document |
| Any additional information | View Document |

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

Response: 0.16

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 0 | 0 | 1 | 0 | 1 |

| File Description | Document |
|---|-------------------------------|
| List of teachers and their international fellowship details | View Document |
| e-copies of the award letters of the teachers | View Document |
| Any additional information | View Document |

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)

Response: 22.74

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)

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 5.5 | 0 | 9.009 | 6.982 | 1.245 |

| File Description | Document |
|--|-------------------------------|
| List of project and grant details | View Document |
| e-copies of the grant award letters for research projects sponsored by government and non-government | View Document |
| Any additional information | View Document |

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

Response: 0.31

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 1 | 1 | 2 | 0 | 0 |

| File Description | Document |
|--|-------------------------------|
| Names of teachers having research projects | View Document |
| Any additional information | View Document |
| Link for additional information | View Document |

3.2.3 Percentage of teachers recognised as research guides**Response:** 29.92**3.2.3.1 Number of teachers recognized as research guides**

Response: 79

| File Description | Document |
|--|-------------------------------|
| Upload copies of the letter of the university recognizing faculty as research guides | View Document |
| Any additional information | View Document |
| Link for additional information | View Document |

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years**Response:** 7.27**3.2.4.1 Number of departments having Research projects funded by government and non-government agencies during the last five years**

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 1 | 1 | 2 | 0 | 0 |

3.2.4.2 Number of departments offering academic programmes

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 11 | 11 | 11 | 11 | 11 |

| File Description | Document |
|---|-------------------------------|
| Supporting document from Funding Agency | View Document |
| List of research projects and funding details | View Document |
| Any additional information | View Document |
| Paste link to funding agency website | View Document |

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.

Response:

The Institution created an environment that is suitable for the promotion of research, innovation, incubation, and community orientation. The institute has well equipped laboratories enabling the faculty and students to carry out research. Further, the institute has research centers granted by JNTU Kakinada for the departments of EEE, ME, ECE, PT and CSE.

The institute encourages students and faculty to participate in various programs on innovation and entrepreneurship, motivational talks, boot camps, idea competitions and business plan assessment.

The institute organized several extension activities to sensitize the students towards community orientation. The institute has a committee for extension activities which oversees all activities related to extension and community outreach. Students actively participate in various social service activities leading to their overall development. There are two National Service Scheme (NSS) units, Red Cross Unit and LEO club in the institute for carrying the extension and outreach activities.

A dedicated incubation center is available in the institute. Faculty and students have access to a variety of resources and guidance. Students are encouraged to use the technology to fulfil the needs of the community. The incubation center provides necessary assistance for documentation, publication of research papers, and patenting. It also provides financial assistance for major and minor research projects.

The major functions of the incubation Center are:

- Providing necessary assistance for documentation, publication of research papers, and patenting.
- Providing financial assistance for major and minor research projects.
- Identifying the best project models and encourage the students with cash awards.
- Providing training through workshops, seminars, and guest lectures on entrepreneurship.

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

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

Response: 55

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 13 | 10 | 10 | 10 | 12 |

| File Description | Document |
|--|-------------------------------|
| Report of the event | View Document |
| List of workshops/seminars during last 5 years | View Document |
| Any additional information | View Document |

3.4 Research Publications and Awards

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

Response: A. All of the above

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

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

Response: 1.76

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

Response: 139

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

Response: 79

| File Description | Document |
|--|-------------------------------|
| List of PhD scholars and their details like name of the guide , title of thesis, year of award etc | View Document |
| URL to the research page on HEI web site | View Document |

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

Response: 1

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 74 | 62 | 45 | 38 | 36 |

| File Description | Document |
|--|-------------------------------|
| List of research papers by title, author, department, name and year of publication | View Document |
| Any additional information | View Document |

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

Response: 0.74

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 63 | 72 | 32 | 11 | 11 |

| File Description | Document |
|---|-------------------------------|
| List books and chapters in edited volumes / books published | View Document |
| Any additional information | View Document |

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

Response: 4.4

| File Description | Document |
|--|-------------------------------|
| Bibliometrics of the publications during the last five years | View Document |
| Any additional information | View Document |

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

Response: 15.5

| File Description | Document |
|--|-------------------------------|
| Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution | View Document |
| Any additional information | View Document |

3.5 Consultancy

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

Response: 113.05

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 16.67 | 34 | 28.29 | 15.24 | 18.85 |

| File Description | Document |
|--|-------------------------------|
| List of consultants and revenue generated by them | View Document |
| Audited statements of accounts indicating the revenue generated through consultancy and corporate training | View Document |
| Any additional information | View Document |

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

Response: 31.1

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)

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 0.7 | 2.4 | 13 | 15 | 0 |

| File Description | Document |
|---|-------------------------------|
| List of training programmes, teachers and staff trained for undertaking consultancy | View Document |
| List of facilities and staff available for undertaking consultancy | View Document |
| Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy | View Document |
| Any additional information | View Document |

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

Response:

The institute organized several extension activities to sensitize the students towards community needs. The committee for extension activities oversees all extension activities, sensitising students on social issues, thus orienting them towards community service. The students actively participate in social service

activities leading to their overall development. There are two National Service Scheme (NSS) units, a Red Cross Unit and a LEO club in the institute.

During the five-year period (2017-2022) the NSS unit organized various community service programmes like

- Vanamahotsavam Week,
- ODF Survey,
- Janmabhoomi Program,
- NSS Special Camp,
- Swatch Bharat campaign,
- Raising Funds to Help Kerala Flood Victims,
- Swatch Sarvekshan Grameen 2018,
- UBA Survey,
- Jal Shakti Abhiyan,
- Tree Plantation Programme

NSS organized a residential seven-day camp in nearby villages and several activities were carried out by NSS volunteers addressing the social issues which include cleanliness, tree plantation, Environmental consciousness, AIDS awareness, Blood donation camp and Health check-up camp. In addition to these, NSS organised some events in the campus like international women's day celebrations, female inspirational awards programme to promote women empowerment. Also, Red Cross unit organized several campaigns such as cycle rally on completion of 100 years for Red Cross unit, mega blood donation camp, distribution of butter milk and masks to the policemen during COVID-19. The LEO club distributed food and groceries to the private teachers during pandemic and arranged the food packets to the poor during lockdown.

Considerable growth in number of extension activities and student participation is observed year on year.

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

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

Response: 21

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 4 | 6 | 4 | 4 | 3 |

| File Description | Document |
|--|-------------------------------|
| Number of awards for extension activities in last 5 year | View Document |
| e-copy of the award letters | View Document |
| Any additional information | View Document |

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

Response: 114

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 35 | 20 | 30 | 20 | 9 |

| File Description | Document |
|--|-------------------------------|
| Reports of the event organized | View Document |
| Number of extension and outreach Programmes conducted with industry, community etc for the last five years | View Document |
| Any additional information | View Document |

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

Response: 45.67

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 2579 | 1872 | 2398 | 1949 | 2229 |

| File Description | Document |
|---|-------------------------------|
| Reports of the event | View Document |
| Average percentage of students participating in extension activities with Govt or NGO etc | View Document |
| Any additional information | View Document |

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

Response: 16.8

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 28 | 19 | 21 | 10 | 06 |

| File Description | Document |
|--|-------------------------------|
| Number of Collaborative activities for research, faculty etc | View Document |
| Copies of collaboration | View Document |
| Any additional information | View Document |

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)

Response: 26

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 7 | 3 | 8 | 4 | 4 |

| File Description | Document |
|---|-------------------------------|
| e-copies of the MoUs with institution/ industry/ corporate house | View Document |
| Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years | View Document |
| Any additional information | View Document |

Criterion 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.

Response:

The institute has adequate infrastructure and physical facilities, such as classrooms, labs, computer equipment, and so on, in accordance with statutory bodies requirements, to support the teaching and learning activities, as described below.

- The institute is situated in a lavish green campus of 25.98 acres and caters to Academic, Sports and Residential needs.
- Academic amenities for all Under Graduate (UG) and Post Graduate (PG) programmes are housed in six separate academic buildings.
- All the classrooms and seminar halls on campus are well ventilated, equipped with white board, projector, Wi-Fi connectivity and can accommodate students comfortably.
- All the faculty members have access to ICT facilities that aid in the teaching-learning activities.
- The institute has well equipped laboratories to fulfil the needs of laboratory courses, mini-projects, major projects, and research. The departments have open-source and licenced software for their computing requirements.
- The departments of ECE, CSE, EEE, PT & ME are recognized as research centres by the affiliating university JNTUK.
- The institute has well equipped computer centre which can be utilized beyond the working hours by students and staff.
- The Knowledge Resource Centre (Central Library) serves as a knowledge hub with over 7,728 titles and 81633 volumes to cater the learning needs of students and staff. A digital library with 30 systems enables access to online learning resources. In addition to KRC, each department is provided with a library for instantaneous reference by students and staff at the department level.
- The institute has training halls which comfortably accommodate students and staff for conducting training programs.
- The institute has student activity centre to facilitate the students of various clubs to share their thought process and ideas.
- The institute has a Digital studio with video recording facility, mixing equipment and editing software to develop video lectures.

In addition, the institute provides various sports, games and gym facilities to encourage students towards physical activity and recreation as well as on campus hostel facility for boys and girls separately.

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

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

Response:

Physical Education is an integral part of the institute that enhances physical fitness besides promoting sportsmanship and teamwork. In addition to curricular activities, the institute supports extra-curricular activities like Sports, Games, Cultural activities and Yoga etc. The institute trains the students in Athletics, Football, Volleyball, Basketball, Cricket and Kabaddi etc.

Indoor games like table tennis, chess, carroms provide recreation to students. Gymnasium of the institute is equipped with modern tools to help the students build physical strength. Also, yoga and meditation are practiced by the students and staff for the best physical and mental fitness.

A total of 2.53 acres dedicated to playing fields for various sports and related activities. Students participate in regular intra-department as well as inter-department sporting events and competitions throughout the course of each academic year. The AEC has demonstrated outstanding performance in these competitions, earning prizes and awards in both individual and group competitions.

The institution gives importance to cultural activities like singing, dancing, skits, and playing musical instruments for the extra-curricular development of student. In the institute various cultural events are organized for the young minds to exhibit and develop their inherent talents.

The institution organizes events that thoroughly facilitate the overall personality development of the student. The institute encourages the students to perform cultural activities during various occasions such as Fresher's Day and Farewell etc.

LIST OF SPORTS GROUNDS

| S. No | Sports Name | Quantity |
|-------|----------------------|----------|
| 1. | Track & Field | 1 |
| 2. | Cricket | 1 |
| 3. | Basket Ball | 1 |
| 4. | Foot Ball | 1 |
| 5. | Hand Ball | 1 |
| 6. | Kabaddi | 1 |
| 7. | Throw Ball | 1 |
| 8. | Tennikoit | 1 |
| 9. | Volley Ball | 2 |
| 10. | Cricket practice Net | 1 |

LIST OF INDOOR & OUTDOOR GAMES

| S. No | Game Name | Quantity |
|-------|----------------------|----------|
| 1. | Chess Board | 10 |
| 2. | Carom Board | 4 |
| 3. | Table Tennis Board | 2 |
| 4. | Track & Field | 1 |
| 5. | Shuttle Badminton | 2 |
| 6. | Cricket | 1 |
| 7. | Basket Ball | 1 |
| 8. | Foot Ball | 1 |
| 9. | Hand Ball | 1 |
| 10. | Kabaddi | 1 |
| 11. | Throw Ball | 1 |
| 12. | Tennikoit | 1 |
| 13. | Volley Ball | 2 |
| 14. | Cricket practice Net | 1 |

DETAILS OF GYM EQUIPMENT

| S. No | Equipment Name | Quantity |
|-------|----------------------------|----------|
| 1 | Rubber & Iron Plates | 95 |
| 2 | Plain Rod & Iron Rod | 46 |
| 3 | Curl Bars Iron | 20 |
| 4 | Dumbbells | 78 |
| 5 | Lat Pull Down Machine | 1 |
| 6 | Butterfly (Or) Peck Fly | 1 |
| 7 | Vertical Row | 1 |
| 8 | Lateral Rise | 1 |
| 9 | Wrist Machine | 1 |
| 10 | Hyper Extension | 1 |
| 11 | Functional Trainer Machine | 1 |
| 12 | Calf Machine | 1 |
| 13 | Leg Extension Machine | 1 |
| 14 | Leg Curl Machine | 1 |
| 15 | T-Bar | 1 |
| 16 | Preacher Curl Benches | 2 |
| 17 | Plane Chest Press Bench | 1 |

| | | |
|----|----------------------------|---|
| 18 | Inclined Chest Press Bench | 1 |
| 19 | Decline Chest Press Bench | 1 |
| 20 | Power Guage | 1 |
| 21 | Smith Machine | 1 |
| 22 | Hack Squat Machine | 1 |
| 23 | Shoulder Press Machine | 1 |
| 24 | Multi-Function Benches | 2 |
| 25 | Plane Benche | 1 |
| 26 | Normal Seating Bench | 1 |

| File Description | Document |
|---------------------------------------|-------------------------------|
| Upload any additional information | View Document |
| Geotagged pictures | View Document |
| Paste link for additional information | View Document |

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)

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 106

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

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

Response: 30.57

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 1171.25 | 577.39 | 361.70 | 241.89 | 466.26 |

| File Description | Document |
|---|-------------------------------|
| Upload Details of Expenditure , excluding salary during the last five years | View Document |
| Upload audited utilization statements | View Document |
| Upload any additional information | View Document |

4.2 Library as a Learning Resource

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

Response:

Library is automated using Integrated Library Management System (ILMS)

The Central library is situated at a place which is easily accessible for all the students and staff. It has adequate number of terminals to facilitate accessing e-resources, web browsing and other academic work. The library also has the facility for printing of materials from various resources. The library is equipped with modern technology and is upgraded as and when required. A Library Management System (LMS) is an enterprise resource planning system for library that is used to track items owned, issued and returned. This system enables efficient library administration to cater user services. The library is automated using Engineering College Automation Package (ECAP) software.

ECAP designed and developed by Webpros Solutions Pvt Ltd, Visakhapatnam, is a highly integrated, user-friendly, and compatible library automation system for complete computerization of all the in-house operations of any size or type of library. ECAP is intuitive, efficient, and compliant. The library software is user-friendly, and easy- to- use. It offers 24x7 access to the library resources and provides functions like acquisition, cataloguing, serial control, etc.

ECAP Modules:

Acquisition & Cataloguing:

The acquisition & cataloguing module of the library management system enables the librarian to select & buy books, journals, and other resources and create a database of the same for easy book search.

Serial Control:

The serial control module of the library software enables the librarian to control processes such as subscription, renewals of books or their cancellations and generate accurate MIS reports.

Circulation:

The circulation module enables the librarian to create and manage borrower types along with keeping a tab on their book issue date, return date, dues, and fines. It enables a smooth circulation of books in the library.

MIS Reports:

Management information systems or MIS reports related to the library allow the librarians to extract crucial data & information of all the library transactions at a few clicks. Accurate MIS reports foster better decision-making.

OPAC:

Online Public Access Catalogue or OPAC is a digital catalogue that enables the users to search books, journals, or any other material by entering keywords such as title of the book, author's name, etc.

| File Description | Document |
|---------------------------------------|-------------------------------|
| Upload any additional information | View Document |
| Paste Link for additional information | View Document |

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

Response: A. Any 4 or more of the above

| File Description | Document |
|--|-------------------------------|
| Upload any additional information | View Document |
| Institutional data in prescribed format | View Document |
| Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc | View Document |

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

Response: 76.35

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)

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 75.44 | 42.61 | 110.48 | 72.94 | 80.28 |

| File Description | Document |
|--|-------------------------------|
| Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years | View Document |
| Audited statements of accounts | View Document |
| Any additional information | View Document |

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

Response: 26.19

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

Response: 1366

| File Description | Document |
|---|-------------------------------|
| Details of library usage by teachers and students | View Document |
| Any additional information | View Document |

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

Response:

The institute has an IT policy which covers Procurement and augmentation of required IT infrastructure as per the need, Utilization of computer facilities including hardware, software, information resources, intranet and internet access facilities, Strategies and responsibilities for protecting the availability, confidentiality, and integrity of information.

As per the policy, the following facilities are created:

- Computer lab facility
- Wired/wireless networks
- Internet
- Wi-Fi access points
- Websites/web apps
- Email
- Data access/storage
- Servers
- Printers/scanners/photocopiers
- Routers
- Switches
- Dell EMC Rack Mountable Servers
- Dell R740 Rack Mountable Servers
- IBM Tower Servers
- Lenovo Desktops
- Lenovo Workstations
- LG LFD TVs
- Samsung LED TVs
- Interactive Panels (Touch TVs)
- Highspeed Scanners
- Secure Socket Layer (SSL)
- SonicWALL Hardware firewall
- Indoor Wi-fi Access points
- Outdoor Wi-fi Access points

- Wi-Fi Cloud Controller
- Office 365 Email services
- College ERP Services
- Wall Mount Screens
- Laser Printers
- Colour Ink tank Printers
- Xerox Machines
- External Storage Devices
- SAN Storage Box
- Server Mountable Wall racks
- Online UPS
- CCTV surveillance system
- LCD Projectors
- Bio Metric devices
- Barcode scanners

LAN connects all campus buildings. The campus is Wi-Fi enabled. Central Office, Departments, Exam Center, Research Center, Placement Cell, and Library have internet. The institute upgrades Internet bandwidth as needed. The institute updates IT facilities annually as needed.

Every academic year the IT Infrastructure and CMS committee meets to discuss the procurement of various IT resources, annual budget, and review the utilization of IT facilities. The convenor sends a circular to all the Heads of the departments to raise their requisitions for augmentation of IT facilities. The committee will finalize all the requisitions raised and budget is estimated by inviting quotations from various vendors. Upon the approval of the purchase committee, the budget is sanctioned, equipment is procured and entry is done in the stock register.

All the computing facilities are being utilized as per the curriculum need. The lab programmers maintain record of utilization of the computing facilities. Maintenance issues are immediately reported to the system administrator for trouble shooting.

IT UPGRADATION FOR LAST FIVE YEARS

| Description | Total |
|--------------------|-------|
| Computers | 1314 |
| Servers | 5 |
| Wi-Fi/Router | 102 |
| LCD Projectors | 165 |
| UPS & Battery | 6 |
| Softwares | 25 |
| Printers | 50 |
| Photocopy machines | 13 |

| | |
|----------------------------|----|
| Graphic Tabs | 40 |
| Biometric Devices | 28 |
| Digital Interactive Panels | 3 |

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

4.3.2 Student - Computer ratio (Data for the latest completed academic year)**Response:** 4:1

| File Description | Document |
|-----------------------------------|-------------------------------|
| Upload any additional information | View Document |
| Student - computer ratio | View Document |

4.3.3 Bandwidth of internet connection in the Institution.**Response:** ?50 MBPS

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

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**

Response: A. All of the above

| File Description | Document |
|---|-------------------------------|
| Upload Additional information | View Document |
| Institutional data in prescribed format | View Document |
| Link for Additional information | View Document |

4.4 Maintenance of Campus Infrastructure

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

Response: 28.66

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)

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 504.13 | 474.24 | 602.88 | 596.31 | 609.33 |

| File Description | Document |
|--|-------------------------------|
| Upload any additional information | View Document |
| Details about assigned budget and expenditure on physical facilities and academic facilities | View Document |
| Audited statements of accounts | View Document |

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

Response:

The institute has put into place a policy for the maintenance and utilization of academic, physical, and support facilities. This policy addresses maintenance of buildings, laboratory equipment, lifts, fire extinguishers, generators, UPS systems, air conditioners, water coolers, photocopy machines, computer

systems, and surveillance systems. The institute employs full-time personnel to do routine maintenance of its various facilities, including buildings, transportation, electricity, housekeeping, gardens, and so on. The appropriate AMCs are in place so that unconventional equipment can be repaired.

A standard operating procedure is developed for maintenance and utilization of the physical facilities. Buildings, classrooms and wash rooms are cleaned on regular basis. Maintenance of facilities like lift, fire extinguishers, generator, UPS, air-conditioners, water coolers, photocopy machines, transport facilities and surveillance systems is done as per their scheduled maintenance time lines. Maintenance of lab equipment, computer systems is done during the semester gap. Stock verification in all laboratories is done at the end of every year.

Interim maintenance for all academic and physical facilities is performed as and when required. Facilities like seminar halls, activity rooms, conference halls and guest house are utilized by taking prior permission of the concerned in charge.

Classroom maintenance:

The class room maintenance such as cleaning, repairing of electrical appliances are done with proper reporting system and monitored by house-keeping department.

Laboratory Maintenance:

Laboratories are maintained with equipment specific safety guidelines. The repairing of equipment includes in-house and company-based services. Lab technicians of respective labs maintain the lab equipment. Each lab is equipped with fire extinguisher.

Library Maintenance:

The library maintenance is based on printed content and digital content. For printed content is catalogued with barcoding kept available for access. Binding and replacement of books will be done for damaged books. Re-subscription of digital content will be done upon expiry of validity.

Sports Maintenance:

Sports equipment is inspected frequently. In case of any damage, the equipment is replaced. All sports posts are frequently painted to avoid rusting. The grounds and courts are regularly cleaned and maintained.

Computers Maintenance:

Maintenance of computer hardware is done by either in house repair or replacement. Software related maintenance is done by frequent updating and annual resubscription.

Examination Unit maintenance:

This maintenance includes the archiving and disposal of student's sessional booklets and academic student registers for an academic regulation. The photo copiers are upgraded yearly.

Gardening:

The garden maintenance aimed to provide good land scaping which includes watering the

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

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 58.46

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 2820 | 2762 | 2574 | 3003 | 2966 |

| File Description | Document |
|--|-------------------------------|
| upload self attested letter with the list of students sanctioned scholarships | View Document |
| Upload any additional information | View Document |
| Institutional data in prescribed format | View Document |
| Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years | View Document |

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

Response: 36.23

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)

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 1460 | 1907 | 1857 | 1589 | 1925 |

| File Description | Document |
|---|-------------------------------|
| Upload any additional information | View Document |
| Number of students benefited by scholarships and freeships besides government schemes in last 5 years | View Document |
| Institutional data in prescribed format | View Document |

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

Response: A. All of the above

| File Description | Document |
|---|-------------------------------|
| Details of capability enhancement and development schemes | View Document |
| Any additional information | View Document |
| Link to Institutional website | View Document |

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.

Response: 72.64

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 3705 | 2737 | 3741 | 3680 | 3670 |

| File Description | Document |
|---|-------------------------------|
| Number of students benefited by guidance for competitive examinations and career counselling during the last five years | View Document |
| Any additional information | View Document |

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**

Response: A. All of the above

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

5.2 Student Progression

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

Response: 66.07

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 966 | 757 | 680 | 652 | 683 |

| File Description | Document |
|---|-------------------------------|
| Upload any additional information | View Document |
| Self attested list of students placed | View Document |
| Details of student placement during the last five years | View Document |

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

Response: 10.26

5.2.2.1 Number of outgoing student progressing to higher education.

Response: 122

| File Description | Document |
|--|-------------------------------|
| Upload supporting data for student/alumni | View Document |
| Details of student progression to higher education | View Document |
| Any additional information | View Document |

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.)

Response: 95.03

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 80 | 87 | 24 | 20 | 7 |

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 82 | 88 | 25 | 21 | 8 |

| File Description | Document |
|---|-------------------------------|
| Upload supporting data for student/alumni | View Document |
| Number of students qualifying in state/ national/ international level examinations during the last five years | View Document |
| Any additional information | View Document |

5.3 Student Participation and Activities

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

Response: 77

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 17 | 0 | 18 | 20 | 22 |

| 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 | View Document |
| e-copies of award letters and certificates | View Document |
| Any additional information | View Document |

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

Response:

The institute believes that student involvement in academic and administrative activities plays crucial role in development of the institute. In this regard, the students are encouraged to be a part of academic, administrative committees and student council. Students actively participate and organize various academic, co-curricular, extra-curricular and extension activities. This empowers the students to gain leadership qualities, managerial skills, and team work.

The institute has an active student council with student representatives, senior faculty and Principal as its members. One student act as a coordinator and one student acts as a secretary of the committee. The student council acts as a facilitator between students and administration of the institute. The activities and functions of the student council are:

- To work as a facilitator between students and the institute to resolve various problems.
- To assist in the conduction of various co-curricular and extra-curricular activities.

Students as members of various committees involve in decision making process by providing suggestions and feedback. This facilitates the institute to understand the student perception on various issues. Students' representation is given proper weightage for the holistic development of the institute.

Student representation is active in the following list of committees:

- Anti-Ragging Committee
- Admission Committee
- Alumni Coordination Committee
- Canteen Committee
- Internal Quality Assurance Cell (IQAC)
- Committee for co-curricular activities
- Committee for extra-curricular activities
- Industry institute coordination and Entrepreneurship Development Cell (EDC)
- Student Grievance Redressal Committee
- Health Committee
- Hostel Committee
- Library Committee
- Sports and Games Committee
- Career Guidance, Training and Placement committee
- Website Maintenance Committee
- Internal Complaints Committee
- Committee for extension activities
- Transport Committee
- Professional Societies Coordination Committee
- Publication Committee

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

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

Response: 22.8

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 29 | 2 | 28 | 29 | 26 |

| File Description | Document |
|--|-------------------------------|
| Upload any additional information | View Document |
| Report of the event | View Document |
| Number of sports and cultural events / competitions organised per year | View Document |

5.4 Alumni Engagement

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

Response:

The institute believes that an active alumni association has the potential to significantly contribute to both academic concerns and student welfare. As a result of this, alumni are encouraged to participate in the various statutory committees that the institute has to offer. The institute encourages interactions between students and alumni so that current students can benefit from the alumni's extensive knowledge and experience to further their own education.

The Alumni Association of the Institute is recognized and active in its operations. An eco-system that is both proactive and supportive, and which works to the advantage of the students as well as the Institute. The alumni association is led by a president, a vice-president, a secretary, a treasurer, and a general secretary. Each of these positions is responsible for specific functions within the alumni association. Alumni chapters in Hyderabad and Bangalore are formed and are actively involved in initiatives to reach out to the community.

The alumni involve actively in the following activities:

- Curriculum development and revision
- Deliver Guest lectures on emerging technologies
- Career guidance to enlighten the students on different career options
- Provide industry-institute interaction
- Support for placements and internships
- Entrepreneurship guidance
- Donating books

Financial Support:

The Alumni Association also contributes financially to the Institute. It is intended to inspire former students of our college to support the institute by generously contributing to the expansion of the institute's facilities.

A number of our alumni contributed to the purchase of books, and other items through the Alumni Association. Our Alumni Association's role in the overall development of the institute is both supportive

and constructive.

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

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

Response: A. ? 15 Lakhs

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

Criterion 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

Response:

YES

The institute focuses on effective governance through decentralization to achieve its vision. The following are the vision and mission of the institute:

Vision:

To induce higher planes of learning by imparting technical education with

- International standards
- Applied research
- Creative ability
- Value based instruction and to emerge as a premiere institute.

Mission:

Achieving academic excellence by providing globally acceptable technical education by forecasting technology through

- Innovative research and development
- Industry institute interaction
- Empowered manpower

To achieve these goals, the Governing Body (GB) oversees the institute's operations and provides directions to various statutory and non-statutory bodies of the institute. The governing body ensures that all decisions on the matters such as admissions, new programmes, infrastructure, teaching and learning process and placements are in-line to realize the vision of the institute. The governing body takes a democratic, decentralised, and transparent approach to governance. It encourages all stakeholders to participate in the institute's administrative activities by forming several academic and administrative committees.

The institute has a strategic plan and all policies related to growth of the institute are designed in-line with the strategic plan. The Governing Body meets on a regular basis to examine the institute's overall growth and provide recommendations for further improvements by keeping the institute's vision, mission, and strategic plan in view.

Faculty members and students are entrusted with various responsibilities in numerous committees of the institute, which plays a vital role in decision making. This provides adequate freedom to faculty for strengthening teaching–learning process, academic advancement and holistic development of the students.

The faculty are actively involved in designing new experimental set-up in laboratories and executing in-house & funded R &D projects. Faculty members are encouraged to be innovative and critical towards the administrative mechanism thus making them participate in the continuous development of the institute to achieve the vision and mission.

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

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

Response:

The Institute practices decentralization and participative management in frequent consultation with the Governing Body (GB). The GB is responsible for the overall administration of the institution. The GB conducts regular meetings to supervise all functional bodies to achieve the vision and mission of the institute.

Academic Council (AC) is the highest authorising body for all academic activities. It is also responsible for scrutinizing and approval of all academic proposals provided by the Board of Studies (BOS) of different departments. It also recommends new academic programmes and other academic matters to the GB, if required. It also acts as a mentor for improving co-curricular and extra-curricular activities in the departments.

The Principal regularly conducts meetings with all the Deans, HODs and various committee convenors to make decisions with respect to all activities of the institute. The institute is well known for its good administrative practices, academic activities, infrastructure maintenance, and work culture.

The Institute has many independent statutory and non-statutory bodies responsible for achieving the core values and objectives with a higher order of transparency. Six independent Deans are designated to look after all academic, administrative and other activities. The deans work under the supervision of the Principal. In addition, the Accounts section and Library are directly administrated by the Principal.

Departments like the Security, Admission, Scholarship and Transport are monitored by Dean-Administration. Dean-Academics oversee all academic and department-related activities with the support of respective Head of the Department. The Dean-IQAC oversees the activities related to internal quality assurance. Exam section is administrated by Dean- Evaluation. Training and placement cell, sports and games, entrepreneurship development cell activities and hostel are monitored by Dean-Student Affairs. All the research and development, consultancy activities are looked after by Dean-R&D.

All Convenors of various committees, Deans and HODs are given freedom to take necessary decisions for

the development of the student's career, departments and the institute.

Every year the management through Principal encourages the departments to prepare a budget estimate to meet the requirements related to curricular activities, research and development, faculty and student development, laboratory development etc. The respective department head in consultation with senior faculty members will prepare a budget estimate which is submitted to the Principal for approval. All these proposals are discussed in the governing body meeting for final approval.

| File Description | Document |
|---|-------------------------------|
| Any additional information | View Document |
| Link for strategic plan and deployment documents on the website | View Document |
| Link for additional information | View Document |

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

The institution prepared the strategic plan in consultation with various stakeholders periodically as per the requirement to enhance the quality of education, placements, infrastructure and R&D activities. Placements is a significant parameter that increases the institute's value and satisfies parent requirements. Hence, prominence is given to placement in the institutional strategic plan and is successfully implemented.

To improve placements, the institute has designed the curriculum to incorporate employability skills from second-year first semester to third-year second semester. This enables the students to focus on aptitude, reasoning and soft skills to become employable.

In addition to this, the institute has a technical training centre (Technical hub) which mainly focuses on technical training and certifications on various technologies like Azure DevOps, AWS, Machine Learning, Data science, Cloud Computing, IoT, Ethical Hacking and Block chain. Skill tests are conducted regularly to assess the student's performance. Students are encouraged to participate in various coding competitions to give them edge to work with companies like Amazon, Google, Microsoft etc.

The institute focused on the skill development of the students in order to make them industry ready. In this regard, various skill development training programmes are offered through MOUs with APSSDC, CISCO Networking Academy, Tessolve, Red Hat Academy, Automation Anywhere, Salesforce, Certiport, Oracle academy, AWS Educate and VmWare IT Academy.

Communication skills of the students are enhanced through campus communication skills programme. Group discussions and debates are conducted regularly for students to make them aware of various aspects of communication. Students are sensitized to prepare a better resume. Mock interviews are conducted regularly to train the students on interview etiquette from third year onwards.

Continuous assessment and evaluations are arranged for the students in connection with Cocubes, AMCAT, eLitmus, Myanatomy, Wheebox etc.

Through the above strategy, the institute has achieved a significant improvement in placements compared to the previous academic year.

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

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

Response:

The institution has a decentralized and transparent mechanism in management, administration, financial and academic affairs. The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules. This mechanism is delegating appropriate responsibilities from the top-level management to bottom level and allows the top management to focus on policy making and major decisions. The constitution of statutory committees like Governing Body, Academic Council, Finance Committee, Board of Studies and IQAC are systematically carried out with specified functions and responsibilities as per the requirements of the regulatory/statutory bodies. These committees play a major role in policy making related to governance, academics, finance, research and teaching-learning.

The Governing body (GB) is responsible for the overall administration of the institution. The GB conducts regular meetings to supervise all functional bodies to achieve the vision and mission of the institute. Academic council looks into the matters related to curriculum design, evaluation procedures, co-curricular and extra-curricular activities. It ratifies the academic proposals which are approved by Board of studies (BOS) of different departments. It can also recommend new academic programs and other academic matters to the GB.

The principal ensures the smooth functioning of the institution with the support of Deans, Heads of the Departments, Librarian, Accounts officer, Administrative officer and various Committee convenors. There are non-statutory committees working hand-in-hand in identifying possibilities, planning, organizing, implementing and monitoring all the activities of the institution. The committees include Anti Ragging / Discipline Committee, Internal Complaints Committee, Grievance Redressal Committee, Website maintenance Committee, Library Committee etc.

All the functional units and committees have well defined functions and standard operating procedure for effective execution of the relevant activities.

| File Description | Document |
|---|-------------------------------|
| Any additional information | View Document |
| Link to Organogram of the Institution webpage | View Document |
| Link for additional information | View Document |

6.2.3 Implementation of e-governance in areas of operation

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

Response: A. All of the above

| File Description | Document |
|---|-------------------------------|
| Screen shots of user interfaces | View Document |
| Institutional data in prescribed format | View Document |
| ERP (Enterprise Resource Planning) Document | View Document |
| Any additional information | View Document |
| Link for additional information | View Document |

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

Response:

The institute aims to give significant importance to human resources that enhance the institute's values, growth and achieve the institute's mission. The emphasis is given to the staff members' career development and continuous progression.

The institute has effective welfare measures for its teaching and non-teaching staff.

Welfare measures for career development/ progression

- 1. Providing incentives to the faculty members for publishing Journal papers, Conferences, text books, book chapters and filing the patents
- 2. Providing seed money to innovative projects by faculty and students
- 3. Providing financial assistance to faculty members to participate in Faculty Development Programmes, Workshops, Seminars and Conferences

4. Providing financial assistance for professional body memberships to faculty members
5. Providing paid leave for Ph.D. thesis submission
6. Providing paid leave to faculty for attending conferences

In addition, the institute offers benefits for both teaching and non-teaching staff to provide a conducive environment which enables the individual and the institute's growth

1. Free transportation facility is provided to staff
2. Free Hostel facility is available within the campus for staff members
3. Subsidized rent for staff quarters
4. Tuition fee concession for the children of Staff
5. Sponsored health insurance for teaching staff by paying the premium through an insurance company that covers treatment for all major health problems
6. ESI facility for the welfare of administrative staff
7. Health centre is established in the campus with qualified doctor and para-medical staff along with an ambulance available round the clock
8. Maternity leave is provided to the women employee for a period of three months
9. Organizing exclusive health camps for free treatment to the staff
10. Providing uniforms to non-teaching faculty

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

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

Response: 68.76

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 204 | 108 | 186 | 192 | 191 |

| File Description | Document |
|---|-------------------------------|
| Institutional data in prescribed format | View Document |
| Any additional information | View Document |
| Link for additional information | View Document |

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

Response: 61.8

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 81 | 12 | 77 | 67 | 72 |

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

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

Response: 56.84

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

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 207 | 153 | 130 | 130 | 110 |

| File Description | Document |
|---|-------------------------------|
| IQAC report summary | View Document |
| Institutional data in prescribed format | View Document |
| Any additional information | View Document |

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

The institute regularly conducts internal and external financial audit to ensure financial compliance and transparency. The internal financial audit is done by the accounts department of the institute. The external financial audit is conducted by a qualified chartered accountant.

The financial audit is a regular process and the accounts department of the institute thoroughly verify all payments, receipts & vouchers of the transactions, cash books, and ledger account reviews that are carried out in each financial year on an accrual basis. The financial records are audited by qualified chartered accountants at the end of each fiscal year and income & expenditures, balance sheet and prepared notes to accounts are certified.

The Institute has a mechanism for audits to ensure financial compliance. Internal audits are carried out regular intervals and external audits are carried out once a year. The reports of the

External and Internal Auditors are reviewed by the management and given to the appropriate internal auditors in order to implement the required changes in the areas identified.

Audited financial statements are made available in the public domain by displaying them in the institute's website for statutory and regulatory bodies.

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

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)

Response: 0

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

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

| File Description | Document |
|---|-------------------------------|
| Institutional data in prescribed format | View Document |

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

Response:

The organization has a clearly defined financial policy that ensures funds are used effectively for educational, managerial, and development activities which support the vision and mission of the institute.

Mobilization of funds:

1. The major source of income to the institute is the tuition fee collected from students. The fee is fixed by the government of Andhra Pradesh based on the recommendations of Andhra Pradesh fee regulating authority.
2. Funds received from organizations such as UGC, AICTE, DST, ISTE etc. are used to carry out research activities, organize seminars and conferences, modernization of labs and travel grants. The institute has a well-defined policy to carry out the consultancy works by the faculty.

Resource Utilization: Based on budget estimates obtained from all departments, annual budget is developed to ensure the best possible use of financial resources. Every year, the management analyses financial activities by comparing estimated budgets with actual expenditures to interpret the effective utilization of funds.

The funds are used to cater the following needs:

- Salaries of Employees
- Academic maintenance such as affiliation fee, events and celebrations, library expenses & subscriptions, laboratory maintenance, computer maintenance, training and placement expenses, travelling and transport expenses, AICTE fee, APSCHE fee, web site's maintenance expenses, internet charges, organizing seminars, workshops, faculty development programs and University fee
- Physical maintenance such as medical expenses- health centre services and student hand book expenses, repairs and maintenance of furniture, electricals and buildings, stationary expenses, postage expenses, telephone charges, internet expenses, office expenses, electricity charges, security charges, rent, rate and taxes, inspection fee, building insurance, garden expenses, audit expenses, bank charges.
- Infrastructure augmentations such as computers, electrical goods, furniture, laboratory equipment, sports equipment.
- Library books, journals, e-journals subscriptions, newspapers, periodicals.

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

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes 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)

Response:

The IQAC of the institute is committed towards quality assurance at all levels. The Committee for IQAC is composed as per the laid statutory norms and oversees the academic and administrative activities related to quality assurance. Over the years, the IQAC of the institute streamlined the process of academic and administrative audit. IQAC also took active role in compiling data for AQAR, AISHE, NIRF and other ranking organizations. It also played a key role in sensitizing staff towards NAAC and NBA accreditation process by organising several workshops. As the institute is an autonomous institute, the primary focus of IQAC is to strengthen the feedback system at all levels in order to ensure quality and satisfaction to all stakeholders. Below mentioned are two practices institutionalised by IQAC during the past five-year period.

Use of ICT and collaborative teaching learning Process:

The institute's IQAC is involved in implementing a variety of innovative teaching learning approaches, including video lectures, orientation programmes, quality improvement in teaching through inter-disciplinary lectures, skill-oriented programmes, supportive classes, problem-based learning, student-aided teaching, creative thinking, co-operative learning and students' seminars.

During the academic year, students participate in industrial visits to enhance their practical knowledge. Students are exposed to problem-based learning, innovative and critical thinking, communication skills. Students receive hands-on training from alumni members to keep them updated on latest advancements and job-related skills. IQAC holds frequent review meetings with academic coordinators and departmental heads to ensure that all curriculum activities are in order. The students are exposed to collaborative learning in which a group of students work on problem solving.

Feedback system:

Feedback is collected on various aspects like curriculum development, Teaching-Learning process, Infrastructure and learning resources etc.,

Various kinds of feedback are collected as follows:

- **Feedback on curriculum development is collected from academicians, industry experts, employers and alumni**
- **Feedback on Teaching-Learning process is collected from students**
- **Feedback on Infrastructure and learning resources is collected from faculty and students**

The IQAC compiles the responses collected for further analysis and used to improve quality in the areas of curriculum development, infrastructure facilities and research resource advancement. This overall

evaluation assists the institute in establishing itself as a premier institute.

| File Description | Document |
|----------------------------|-------------------------------|
| Any additional information | View Document |

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)

Response:

The IQAC is actively contributing toward improving the teaching-learning processes, curriculum development, evaluation methods and research activities in the institute. The institute has taken various measures to enhance the quality of the teaching and learning process by periodical review of course plans, course files, class work, feedback from students, make-up classes for slow learners, usage of ICT tools.

IQAC ensures that every department follows the event calendar to organize guest lectures, seminars, workshops, events related to student technical chapters, tech-fests etc. The activities and development in departments are reviewed through internal audit by IQAC cell. This provides an opportunity to enhance the quality of teaching-learning process in the institution.

After the completion of each semester, course outcome attainments and programme outcome attainments are calculated and submitted to IQAC for review. IQAC ensures whether the set benchmarks are accomplished and initiates corrective measures, if required.

IQAC also initiates the sensitization programmes to faculty on various accreditations like NAAC, NBA, NIRF etc.

Annual academic audit

To ensure quality and accountability in academics, IQAC conducts academic audit every year. Any kind of lapses identified are recorded and reported to corresponding Head of the department to initiate corrective action. The HOD is required to correct the lapses and submit

| File Description | Document |
|----------------------------|-------------------------------|
| Any additional information | View Document |

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)**

Response: All of the above

| File Description | Document |
|--|-------------------------------|
| Upload e-copies of the accreditations and certifications | View Document |
| Institutional data in prescribed format | View Document |
| Any additional information | View Document |
| Paste web link of Annual reports of Institution | View Document |
| Link for additional information | View Document |

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

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

Response:

The Institute always believes that women empowerment is the most important aspect in the development and well-being of the Institute, society and nation. The Institute has 29.73% of girl students and 29.01% of female staff out of which 20.6% of female staff are holding the administrative positions.

Gender equity and sensitisation programs are conducted regularly as a part of co-curricular activities. Internal complaints committee of the institute takes active role in conducting these sensitisation programs. The following are the facilities provided in the campus for women welfare:

1. Safety and Security

Internal Complaints Committee addresses the grievances related to gender safety and security. The institute explicitly and exhaustively follows safety norms in all aspects. The institute has a strong security wing consisting of 80 personnel to safe guard the campus in all aspects. The entire campus is covered under enough lighting arrangements. Safety and Security for lady faculty, girl students and others are ensured by these personnel. Timely medical assistance for girl students and lady faculty is provided by a full time Doctor at health centre in the campus. The entire institute is equipped with CC camera for effective surveillance to improve the confidence levels of girl students and women staff with regard to safety and security. Anti-ragging measures were in place to prevent ragging.

2. Counselling

Counselling cell is constituted with senior faculty members and a professional counsellor for mental well-being of students. Professional counsellor counsel the students on need basis. Mentoring is done on the academic and personal aspects of students on a regular basis. A maximum of twenty students are allotted to one faculty member for mentoring. Mentors recommend students to counselling cell who are in need of professional counselling.

3. Common Rooms

Boys and Girls are provided separate common halls as per AICTE norms. News Papers and periodicals are provided in the common halls so that they can keep themselves abreast of the changes happening in the world. Carrom board and Chess boards are made available for recreation. Sanitary napkin vending machines are provided in the girls' common rooms in order to promote health and hygiene.

4. Day care centre for young children

Institute runs a day care centre for the benefit of staff. Kids in this day care centre are taken care by Nanny.

5. Other

- Internal Complaints Committee conducts awareness programmes on gender equity, women safety, Career Opportunities and life-style based disorders.
- Encouraging female students in all curricular, co-curricular and extracurricular activities.
- Separate placement drives are conducted for female students.

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

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

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

Response: A. 4 or All of the above

| File Description | Document |
|--------------------------------|-------------------------------|
| Geotagged Photographs | View Document |
| Any other relevant information | View Document |

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

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

Response:

The institute has a clearly outlined procedure for the management of waste produced through the application of fundamental strategies such as recycling, reducing, and reusing materials. Both solid trash and liquid waste are contributed to the overall waste output of the institute. The Institute does not produce any kind of trash that is considered to be harmful. The goal of the institute's green policy is to achieve zero waste discharge and complete waste utilization using well-designed techniques for the purpose of making the institute clean, hygienic, and healthy for its employees and visitors.

Solid waste management:

The Institute has made significant efforts to improve waste management in order to preserve and create an environment that is clean and enjoyable to be in. The housekeeping staff of the institute routinely removes solid trash from the various colored dust bins that are located around the institute, such as in the departments, administrative offices, canteens, dormitories, and guest houses. Every type of trash is separated, and only the organic materials are delivered to the vermicomposting facility. Vendors collect all of the discarded paper that comes from the various departments, libraries, administrative offices, and hostels.

Liquid Waste Management:

The liquid waste created within the institute is recycled and is used for watering gardens and lawns. Rainfall water is sent to water recharge pits after being gathered. Because of this, the full amount of waste water produced at the institute is recycled and reused.

Biomedical Waste Management:

The biomedical waste produced at the institute is collected and transferred for recycling. In order to recycle biomedical waste, the institute has signed a memorandum of understanding with EVB technologies.

E-Waste Management:

Electronic waste generated by the institute's various pieces of electronic equipment is collected and recycled. In order to recycle electronic waste, the institute has signed a memorandum of understanding with Electropro.

The institute advocates for the most efficient use of available resources. The institute is working to reduce the amount of paper that is used for communication by promoting the use of digital platforms. The potential of electronic products is utilized to its fullest.

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

7.1.4 Water conservation facilities available in the Institution:

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

Response: A. Any 4 or all of the above

| File Description | Document |
|--|-------------------------------|
| Geotagged photographs / videos of the facilities | View Document |
| Any other relevant information | View Document |
| Link for any additional information | View Document |

7.1.5 Green campus initiatives include:

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

Response: A. Any 4 or All of the above

| File Description | Document |
|--|-------------------------------|
| Various policy documents / decisions circulated for implementation | View Document |
| Geotagged photos / videos of the facilities | View Document |
| Any other relevant documents | View Document |

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

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

Response: A. Any 4 or all of the above

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

7.1.7 The Institution has disabled-friendly, barrier free environment

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

Response: A. Any 4 or all of the above

| File Description | Document |
|--|-------------------------------|
| Policy documents and information brochures on the support to be provided | View Document |
| Geotagged photographs / videos of the facilities | View Document |
| Details of the Software procured for providing the assistance | View Document |
| Any other relevant information | View Document |

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

Response:

Students of varying castes, religions, and geographic locations are able to receive an education at the Institute without being subjected to any form of prejudice because the institution adheres to the principle that all cultures and traditions should be treated on an equal footing.

In spite of the fact that the students come from a wide range of sociocultural backgrounds and speak a variety of languages, the institute do not harbour any intolerance against the cultural, regional, linguistic, communal, socioeconomic, or any other types of diversity. National festivals, birth anniversaries, and memorials of prominent Indian leaders like Mahatma Gandhi, Sardar Vallabhbhai Patel, Pandit Jawaharlal

Nehru, Dr. Bhimrao Ambedkar, Sarvepalli Radhakrishnan, and Lal Bahadur Shastri are celebrated with tremendous fervour. Rashtriya Ekta Diwas is celebrated every year on October 31, which is the birth anniversary of Sardar Vallabhbhai Patel. On this day, both the staff and the students of the institution take a promise in honour of National Integration Day.

Since inception, the institute has maintained a high level of diversity and has been at the forefront of initiatives to promote inclusivity. The mission of the institute is to bring together members of the student community, faculty, and staff who come from a variety of backgrounds. As part of its efforts to be inclusive, the institute celebrates a wide variety of local, regional, and cultural events. Saraswathi Puja, Onam Day, Mother Language day, Vanamahotsavam Week, and other events like these are planned not only to accommodate the co-curricular and extra-curricular aspects of the institute, but also with the goal of fostering cultural, regional, and communal harmony among the students and faculty.

In order to promote socioeconomic inclusion, the institution is both a sponsor and a recipient of a number of financial support programs designed to assist students from families with lower incomes. The ideas of equality have served as the foundation around which the institute has constructed its inclusiveness initiatives. In addition to students and staff from the local region, the institute also has students and faculty members from neighbouring states. The student and faculty maintain a strong sense of unity, despite the great diversity that it contains. This is perhaps the most effective way that the institute demonstrates its commitment to regional inclusivity.

| Year | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|----------------------------|---------|---------|---------|---------|---------|
| Number of events conducted | 5 | 3 | 5 | 5 | 5 |

Further, To promote religious harmony, the institute constructed a temple, mosque and church inside the campus.



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

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

Response:

The importance of instilling constitutional obligations, values, rights, duties, and responsibilities in both staff and students has been recognized by the institute. The college has taken the initiative to offer Constitution of India as a mandatory course to its students.

Not only does the Institute believe in establishing a solid academic basis for its students, but it also believes in instilling in them a culture that respects the constitutional obligations that they have. As a component of this, on the 26th of November of each year, the Institute commemorates Samvidhan Divas, also known as Constitution Day, in order to pay tribute to the democratic rights. The institute holds a ceremony during vigilance awareness week in which participants take an oath to renew their commitment to fight corruption.

Additionally, on the ninth of December of each year, the institute commemorates International Anti-Corruption Day. In addition, on January 25th, the institute holds a celebration called National People Day in order to raise awareness among the students and staff about the significance of voting and to encourage young voters to vote in every election. In addition, on the 31st of October of each year, the Institute commemorates National Unity Day in order to raise awareness among the populace regarding the significance of maintaining unity. On certain specific dates each year, the Institute hosts seminars, webinars, and oath-taking ceremonies.

Students are required to take mandatory classes on topics such as Constitution of India, Professional Ethics, and Human Values as part of their educational program. Students who take the course Constitution of India gain an understanding of the constitutional rights, obligations, and responsibilities that come with being a citizen. The course on Professional Ethics and Human Values covers not only personal ethics and values but also professional ethics and values, which are both necessary for an individual to acquire in order to mature into a responsible citizen.

Students are sensitised towards the following aspects related to Constitution of India:

- Explain historical background of the constitution making and its importance for building a democratic India.
- Compare the functioning of three wings of the government i.e., executive, legislative and judiciary.
- Interpret the value of the fundamental rights and duties for becoming good citizen of India.
- Compare the decentralization of power between central, state and local self-government.
- Extend the knowledge in strengthening of the constitutional institutions like CAG, Election Commission and UPSC for sustaining democracy.

| File Description | Document |
|---|-------------------------------|
| • Details of activities that inculcate values; necessary to render students into responsible citizens | View Document |
| Any other relevant information | View Document |

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

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

Response: A. All of the above

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

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

Response:

The institute observes various national and international commemoration days, events, and festivals. It is the responsibility of educational institutions to help their students become civilized by teaching them about

the history, tradition, and culture of the nation in which they live. Students at this educational institution are committed to making India a better place to live.

The institute is responsible for organizing Independence day, Republic day and birth anniversaries of important Indian leaders. The purpose of these celebrations at the educational institution is to help students comprehend the efforts that our great freedom fighters put forth and to instil in them a sense of devotion and commitment towards the country. Through various exhibitions and programs, the ideas of great leaders are planted in the brains of younger people. Both the teaching staff and the students are educated on the significance of maintaining national integrity, with a special focus on their own roles.

Our institution is committed to fostering morality and values in both students and staff. The college celebrates national holidays and the anniversaries of important Indian leaders in order to spread awareness of this cause and encourage participation. Our students are breaking down boundaries of faith and caste as part of their commitment to make India a better place.

Additionally, the institute acknowledges significant days such as World AIDS day, International Women's Day, and International Yoga Day, amongst others.

Few significant days celebrated in the institute:

1. Independence Day
2. Republic Day
3. NSS Foundation Day
4. Ambedkar Jayanthi
5. Gandhi Jayanthi
6. Childrens day
7. Engineers Day
8. Teachers Day
9. National Unity Day
10. Martyrs Day
11. Police Commemorative Day
12. National Girl Child Day
13. World Blood Donors Day
14. National Science Day
15. Earth Day
16. Water Day
17. Vasantha Panchami
18. Guru Pournami
19. Holi
20. Ganesh Chathurthi

| File Description | Document |
|--|-------------------------------|
| Geotagged photographs of some of the events | View Document |
| Any other relevant information | View Document |
| Annual report of the celebrations and commemorative events for the last five years | View Document |

7.2 Best Practices

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

Response:

Best Practice 1

Title: Industry readiness in students to foster the growth of nation

Objectives:

- To foster the technical skills of students by imparting special training on various technologies
- To build confidence in the students by developing communication skills
- To make the students aware of the interview process by conducting mock interviews
- To aim for the overall development of students with specific focus on academics, research, social service and management

Context:

Today's global industrial scenario require professionals with a wide range of knowledge and skill sets, including the ability to lead team-centered projects, contextualized problem formulation, proficiency in communicating across disciplines and hands-on experience. As there is growing demand for skilled professionals in various sectors, the institute aims to produce skilled professionals to fill the demand.

The Practice:

The Institute provides training along with certification to students based on industry requirements in different domains from programming to automation like Data science, Software development, Android development, Cyber Security, Robotics, Mechatronics etc., Special focus is also given on communication and soft skills, so that they can be ready for the industry by enhancing their knowledge as well as skills.

Accordingly, the Institute has focused its efforts in educating future professionals in high-demand fields including:

Software Certifications/Trainings:

AWS Certified Cloud Practitioner & Architect Associate

Microsoft Azure Fundamentals, Administrator & AI Fundamentals Certification

CISCO Certified Network Associate, Cyber Security Operations Associate

CompTIA Certified Cyber Security Analyst, Security+

Google Cloud Certified Associate Cloud Engineer

Automation Anywhere Certified Essential and Advanced RPA Professional

Salesforce Certified Administrator

Red Hat Certified System Administrator & Engineer

Juniper Networks Certified JUNOS Associate

Oracle Cloud Infrastructure Certified Foundations Associate

Google Certified Associate Android Developer,

Microsoft IT Specialist Python and Java Certification

VMware Certified VSphere6 Administrator,

HubSpot Academy Digital Marketing Certification

Microsoft Technology Associate in Web Design, Software Development, Database Fundamentals, Network Fundamentals, Security Fundamentals, and Javascript

Unity Certified Programmer & Artist

Arduino Fundamentals Certification

Autodesk Certified User - AutoCAD, and Revit

Competitive Coding

Red Hat- System Administration RH124, RH 134, RH 254

Oracle Academy SQL and Database

DevOps Associate

MEAN and MERN Stack

Artificial Intelligence & Machine Learning

Internet of Things

Automation Testing

Augmented Reality / Virtual Reality

DELL EMA Academic Alliance - Cloud Infrastructure & Services (CIS)V2, Data Science & Big Data Analytics, Information Storage and Management V3 (ISMV3), Data Production & Management (DPM),

Siemens Solid Edge

Dassault CATIA, Delmia , Simulia

Robot Cprog

Hardware Certifications:

Applied Robot Control- Robots, Mechatronics & PLC Automation

Automotive 2 & 4-Wheeler

Computer Numeric Control (CNC)

Refrigeration and Air Conditioning

Industrial Welding

Electrical Home & Industrial Appliances

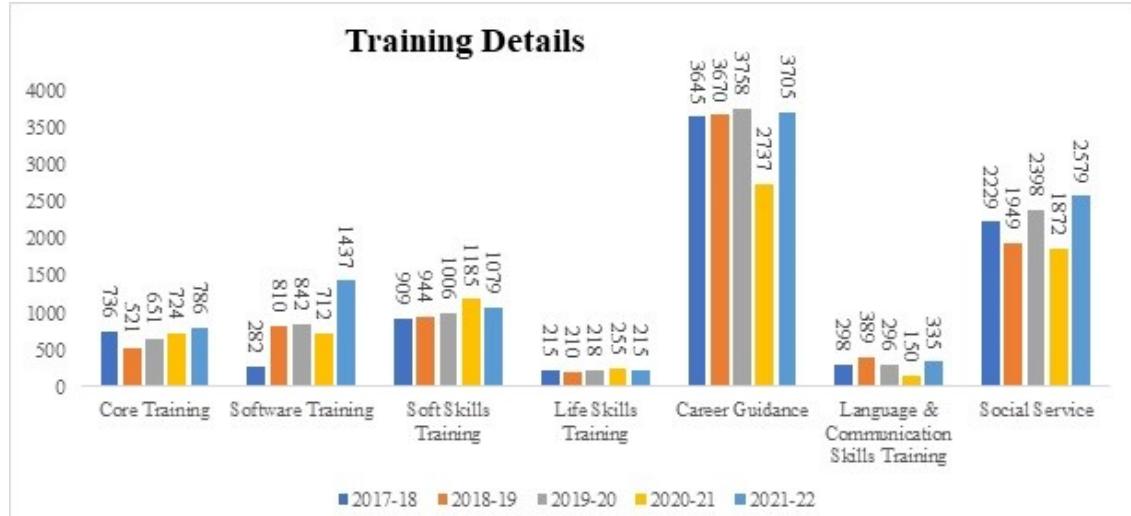
Soft Skills/Life Skills/Career Guidance

Campus offers a platform both virtually and physically for the students to improve their language proficiency in a way that exposes them to global English and help them get rid of mother tongue influence. The learner centric approach provides students a free hand in learning.

Evidence of Success:

- Separate built-up area of 50,000 sq. feet is dedicated to training and certification along with Incubation centre.
- A special team of technical trainers are available at Technical-hub to train the students.
- In addition to regular academic requirement, Training centres are established in association with APSSDC
- Further, students who participated in various trainings and mock interviews enhanced their technical skills and communication skills.

All these efforts culminated towards good placement record.



Problems encountered and resources required

These activities involved considerable amount of time on planning and scheduling the programs. Faculty members devoted significant amount of time besides their regular academic load to train students. Though these activities are meant for all students, only the interested students used to come forward to participate in these activities. Through constant motivation by mentors and publicizing the success of participants, more number of students has shown interest to participate.

Best Practice -2

Global Readiness in Ensuring Ecological Neutrality

Objectives:

- To achieve environmental sustainability through energy conservation, reducing carbon footprint and waste management.
- To sensitise all students and staff towards environment conservation.

The Context:

The increase in environmental pollution and depletion of natural resources throughout the globe calls for immediate attention towards controlling pollution, conservation of natural resources and protecting the planet for future generations.

The Practice:

Aditya Engineering College is an expansive, verdant, and eco-friendly campus. Carbon neutrality, renewable energy production and its utilisation, energy conservation, waste management, and plastic ban are just a few of the ongoing initiatives taken in the campus to protect and preserve our planet. The seriousness of the issue must be emphasised to the students. Students are sensitized towards various problems related to environmental pollution, depletion of natural resources and energy conservation.

The following measures have been initiated in the institute to contribute to the great cause of environmental consciousness and sustainability.

Carbon Balance:

AEC has a 21,054 m² open space and garden area. Flowering plants, particularly trees, operate as a sound barrier and heat regulator in the garden based on their therapeutic value and relationship to Vedic philosophy. Horticulturist supervises the gardens. Organic pesticides and fertilisers are used on plants.

Efforts are being taken to decrease the carbon footprint by adding plants and trees and minimising the vehicle usage.

Biodiversity

Animals such as turtles, fish, cranes, ducks, rabbits, cows, and buffaloes are accessible on campus to help support the needs of the ecosystem's biodiversity.

Renewable Energy:

In the year 2018, solar power production facility with a capacity of 500 kW was erected to cater the needs of the institute. Solar hot water systems with 12000 LPD capacity were built for the hostel buildings.

Energy Preservation:

Facilities for water conservation are spread out across the campus in order to collect rain water, and recycle waste water. Campus is equipped with LED and Automated Street Lights. Electric vehicles are used for transportation inside the campus.

Waste Management:

The Institute effectively manages solid waste, liquid waste and e- waste thus contributing to environment protection.

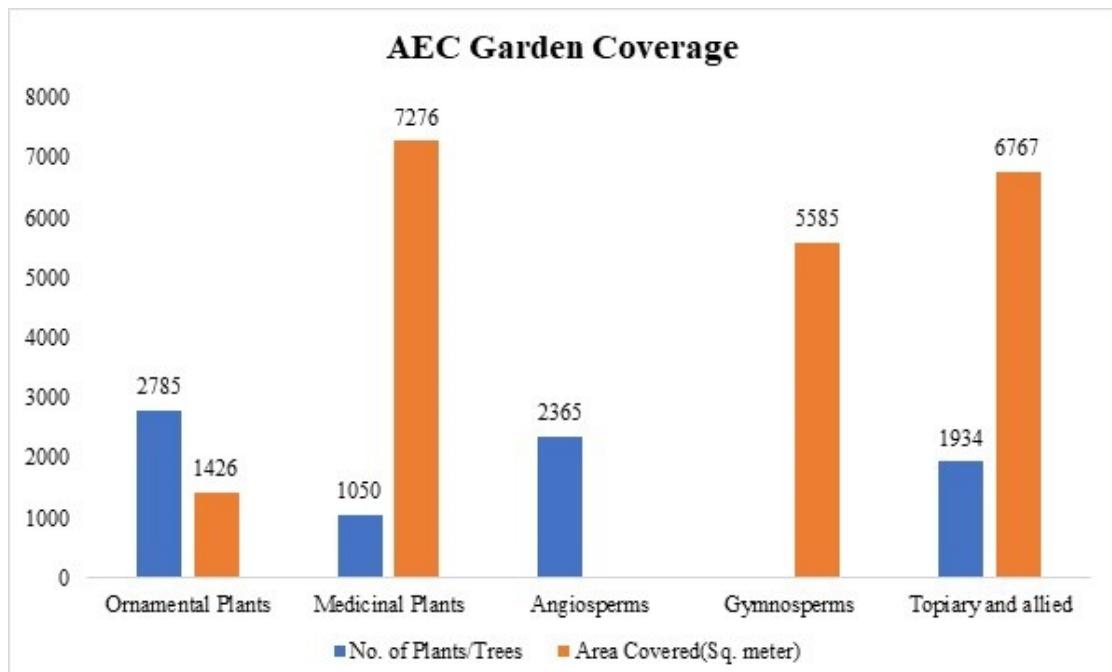
Ban of Plastic:

Efforts are in place to minimize the use of plastic bottles, straws, and food packaging. The college imposed ban on single use plastic-ware

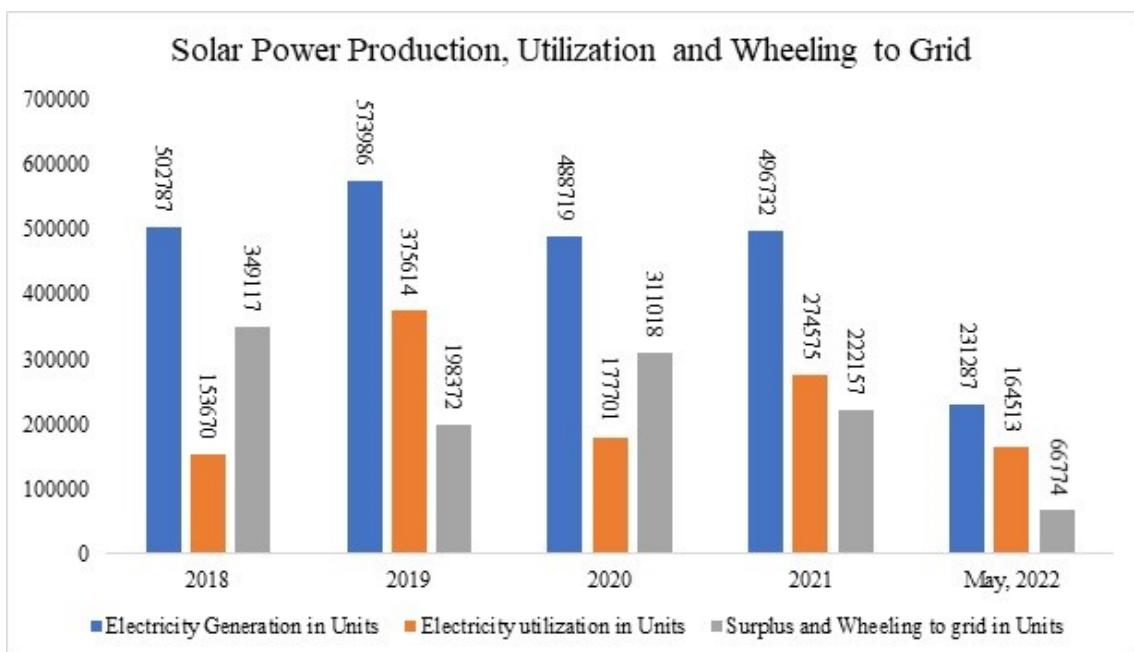
Evidence of Success:

- 37% of AEC is covered with open space and plantation area
- 8 tonnes of vermicompost and 4000 Litres of Jeevamrutham generated from college biomass in 40 days and used as organic plantation feed
- Ponds handle the 95000 KLD campus liquid wastes. Treated water irrigates all campus flora and agricultural land.
- 11 harvesting pits, were strategically placed on campus
- Open ponds with Aerators capture and store rainfall on campus
- FRP Digested Food waste operated 4 m³/day biogas plant was made accessible for biogas generating
- The institute is recognized as “Cleanest Higher Educational Institute” in the country by MHRD with 3rd rank under Swachh Campus Rankings 2019
- The institute is awarded with certificate of appreciation for notable involvement in “One Student One Tree” initiative of AICTE
- Student project “Smart Irrigation System using Arduino & GSM Module” under Chhatra Vishwakarma Awards 2018 secured 1st Position in Innovative Solution under Empowerment of Villages through Technologies.

Graphical Representation of Different Flora in the Campus:



Graphical Representation of Solar Power Production in the Campus:



Problems encountered and resources required:

When it comes to maintaining the quality and performance of green environment during the course of their development and implementation, the costs may quickly add up. Deficiency of skilled labour to oversee green campus initiatives and guarantee consistent high performance. Maintenance costs for the installed facilities also add up. Accomplishing the desired objectives in the designated region requires constant coaching and mentorship. Management has provided necessary support to promote green initiatives in the

campus.

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

7.3 Institutional Distinctiveness

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

Response:

Aditya Engineering College has a vision to induce higher planes of learning by imparting technical education with international standards, applied research, creative ability, value based instruction and to emerge as a premier institute. The institute aims to create a platform for holistic growth and success of students at all levels. The Institute's philosophy of Diversity, Inclusion, and Integration has received a great deal of attention and priority.

Teaching – Learning

The Institute constantly focuses on academic excellence through innovative teaching learning processes. All the faculty are well qualified and majority of them are drawn from premier Institutions. Students are encouraged towards participative learning, experiential learning and problem solving. The institute secured two gold medals in university examinations. The Institute also has secured six Pratibha awards for academic merit from the Government of Andhra Pradesh.

Students and faculty are encouraged towards MOOCs for promoting self-learning. NPTEL rated the institute as AA and stood 39th position in India and 7th position in AP.

The institute regularly conducts workshops, guest lectures and FDPs to enhance the learning experience of students and faculty. Siemens has established 7 laboratories worth Rs. 5 Crores in the campus for skill development in collaboration with Andhra Pradesh State Skill Development Corporation (APSSDC). The Institute was sanctioned Dassault Systems Laboratory by APSSDC. Project Lab of ECE was sponsored by Tessolve semi-conductor company and Texas Instruments.

The skills derived from hands on workshops helps the students to build innovative projects. The project titled “Smart Irrigation System using Arduino and GSM Module” secured first position at AICTE-ECI-ISTE Chhatra Vishwakarma Awards-2018 and received award from Hon. Vice President of India. The project titled “PV based electronic voting machine” secured first runner-up at SIH 2022 and received award from Director IIT Roorke.



Chhatra-Vishwakarma Award-2018

Placements

The Institute aims towards placement for all eligible students. In this connection, focus on employability and skill development are initiated right from the first semester. Students are rigorously trained in coding skills, logical reasoning, aptitude and soft skills. Student progression in these activities is measured and necessary action is initiated, if required.

Apart from this, students are encouraged to participate in value added courses. In house programs like Owl Coder, Project Space, Code Mind, Become Coder helps the student to enhance their skill set in coding.

All these efforts culminated in a significant increase in placements year on year. Few of our students got selected in MNCs with higher packages around 20 lakhs per annum.

Research:

Faculty are encouraged to actively participate in Conferences and Publish papers in reputed International Journals. In the last three years, faculty have published 219 Papers in good quality journals which have Impact Factors and Scopus Indexed. Faculty and students have presented papers in 161 Conference which are Scopus Indexed. Faculty and students have filed 62 patents.

Five Departments (ECE, CSE, PT, EEE and ME) are recognized as Research Centers by JNTU Kakinada. Aditya Engineering College is recognized as Scientific and Industrial Research Organization by the Department of Scientific and Industrial Research (DSIR) for the last 9 years consistently. Civil Engineering department of the institute has been accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL) which enables the department to undertake consultancy.

Clean & Green Initiatives:

In line with the Swachh Bharath Mission initiated by Government of India, the Institute prioritizes Swachh Bharath Abhiyan and rural development. In this context, the institute focuses to sensitize all its stakeholders towards environment, sustainability and rural development. The Institute effectively manages solid waste, liquid waste and e- waste thus contributing to environment protection. Rain water is effectively utilized through water harvesting to recharge the ground water. Solar panels are installed on the roof top of the buildings for solar power generation and wheeling to the grid.

The institute is recognized as “Cleanest Higher Educational Institutes” in the country by MHRD with third rank under Swachh Campus Rankings 2019 under the category of residential colleges. The institute is awarded with certificate of appreciation for notable involvement in “One Student One Tree” initiative of AICTE.



Swacch Campus Award

Extension and Outreach:

The institute organized several extension activities to sensitize the students towards community needs. The committee for extension activities oversees all extension activities, sensitising students on social issues, thus orienting them towards community service. The students actively participate in social service activities leading to their overall development. There are two National Service Scheme (NSS) units, a Red Cross Unit and a LEO club in the institute.

During the five-year period (2017-2022) the NSS unit organized various community service programmes like

- Vanamahotsavam Week,
- ODF Survey,
- Janmabhoomi Program,
- NSS Special Camp,
- Swatch Bharat campaign,
- Raising Funds to Help Kerala Flood Victims,
- Swatch Sarvekshan Grameen 2018,
- UBA Survey,
- Jal Shakti Abhiyan,
- Tree Plantation Programme



Considerable growth in number of extension activities and student participation is observed year on year. The institute is conferred with second rank under the AICTE's National level Utkrisht Sansthan Vishwakarma Awards 2019, for its significant contribution in the growth and development of adopted villages.



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi-110070



CERTIFICATE OF RECOGNITION

Awarded to

ADITYA ENGINEERING COLLEGE, ANDHRA PRADESH

Under the AICTE's National level

Utkrisht Sansthan Vishwakarma Award 2019

held on **24th February, 2020** at **AICTE**, New Delhi.

*The Institute is hereby awarded with **SECOND RANK** for its significant contributions in the growth and development of adopted village.*



This is a Green Certificate. The issuing institution and the awarded one are conserving to increase the green cover of our nation by planting a sapling and nurturing it. Scan the QR code to view the sapling details and its location. SaptiShyamMohanMotorsVenu
AdityaChetna
www.adityachetna.org

Prof. Anil D Sahasrabudhe
Chairman

Utkrisht Sansthan Vishwakarma Award-2019

Ministry of MSME permitted the institute for establishment of two Coir Clusters at Amalapuram and Kadiapulanka villages to develop value added products from coconut coir. Aditya Global Business Incubator is acting as an implementing agency for two Coir Clusters sanctioned by Coir Board, Ministry of MSME worth Rs. 7.5 Crores.

University Innovation Fellows Program:

The Institute constantly encourages the students to participate in various co-curricular programs. Consequently, our students got opportunity to participate in **University Innovation Fellows Program** of Stanford University, San Francisco, California, USA. In the years 2017 and 2019, eight of our students, who are from rural and semi urban background, are part of this program. The selected fellows are empowered to become agents of change to ensure their peers gain the attitudes, skills and knowledge required to navigate a complex world. These student leaders create opportunities to help their peers build the creative confidence and entrepreneurial mindset needed to address global challenges and to build a better future.



University Innovation Fellows Programme

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

5. CONCLUSION

Additional Information :

The institute has shown significant improvement in the following areas since the I cycle of NAAC accreditation.

Curriculum design and development:

- Provision for more electives is incorporated in the curriculum.
- Feedback on curriculum is collected from all stakeholders and appropriate action is initiated.

Teaching and learning:

- Experimental/hands-on exposure is increased through workshops, value-added courses etc.,
- Academic and industry collaborative activities are enhanced.

Research and Development:

- More experienced and PhD qualified faculty are recruited.
- Publications in refereed journals are increased.
- Provision for seed money to initiate research projects is started.
- Research centers are established in the departments of ECE, CSE, ME, EEE and PT.
- Collaboration and consultancy activities are increased.
- More projects/activities related to societal needs are undertaken.

Infrastructure and Physical facilities:

- Number of volumes of books in library increased.
- Band width of internet is enhanced to 1GBPS.
- Facility for differently abled students is provided.

Concluding Remarks :

The institute is conferred with autonomous status by UGC in the year 2017. This provided the institute an

opportunity to focus on curriculum development. The institute adopted outcome-based education, introduced new courses and encouraged self-learning through MOOCs. More infrastructure facilities are augmented to support teaching-learning and research. Student support is enhanced in terms of mentoring, technical training and placement training. All these efforts culminated towards the overall development of the institute.

6.ANNEXURE

1.Metrics Level Deviations

| Metric ID | Sub Questions and Answers before and after DVV Verification | | | | | | | | | | | | | | | | | | | | |
|-----------|--|---------|---------|---------|---------|---------|-----|-------|-------|-------|-------|---------|---------|---------|---------|---------|-----|---|-------|-------|-------|
| 3.1.3 | <p>Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years</p> <p>3.1.3.1. The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th><th>2020-21</th><th>2019-20</th><th>2018-19</th><th>2017-18</th></tr> </thead> <tbody> <tr> <td>8</td><td>5</td><td>5</td><td>6</td><td>6</td></tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th><th>2020-21</th><th>2019-20</th><th>2018-19</th><th>2017-18</th></tr> </thead> <tbody> <tr> <td>0</td><td>0</td><td>1</td><td>0</td><td>1</td></tr> </tbody> </table> <p>Remark : Revised input considering only awards with any financial support provided by awarding agency</p> | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | 8 | 5 | 5 | 6 | 6 | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | 0 | 0 | 1 | 0 | 1 |
| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | | | | | | | | | | | | | | | | | |
| 8 | 5 | 5 | 6 | 6 | | | | | | | | | | | | | | | | | |
| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | | | | | | | | | | | | | | | | | |
| 0 | 0 | 1 | 0 | 1 | | | | | | | | | | | | | | | | | |
| 3.2.1 | <p>Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)</p> <p>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)</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th><th>2020-21</th><th>2019-20</th><th>2018-19</th><th>2017-18</th></tr> </thead> <tbody> <tr> <td>5.5</td><td>1.245</td><td>9.009</td><td>6.982</td><td>1.245</td></tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th><th>2020-21</th><th>2019-20</th><th>2018-19</th><th>2017-18</th></tr> </thead> <tbody> <tr> <td>5.5</td><td>0</td><td>9.009</td><td>6.982</td><td>1.245</td></tr> </tbody> </table> <p>Remark : HEI has not provided ecopies of sanction letter from financing agency</p> | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | 5.5 | 1.245 | 9.009 | 6.982 | 1.245 | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | 5.5 | 0 | 9.009 | 6.982 | 1.245 |
| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | | | | | | | | | | | | | | | | | |
| 5.5 | 1.245 | 9.009 | 6.982 | 1.245 | | | | | | | | | | | | | | | | | |
| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | | | | | | | | | | | | | | | | | |
| 5.5 | 0 | 9.009 | 6.982 | 1.245 | | | | | | | | | | | | | | | | | |
| 3.6.2 | <p>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</p> <p>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.</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th><th>2020-21</th><th>2019-20</th><th>2018-19</th><th>2017-18</th></tr> </thead> </table> | 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | | | | | | | | | | | | | | | |
| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 | | | | | | | | | | | | | | | | | |

| | | | | |
|----|---|---|---|---|
| 14 | 6 | 7 | 8 | 5 |
|----|---|---|---|---|

Answer After DVV Verification :

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 4 | 6 | 4 | 4 | 3 |

Remark : Revised DVV input excluding awards /recognition local in nature by panchayat secretary, sarpanch etc.

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.

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

Answer before DVV Verification:

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 17 | 0 | 18 | 20 | 24 |

Answer After DVV Verification :

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 17 | 0 | 18 | 20 | 22 |

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

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

Answer before DVV Verification:

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 31 | 2 | 31 | 30 | 28 |

Answer After DVV Verification :

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 29 | 2 | 28 | 29 | 26 |

Remark : Revised values as per supporting documents and data template Note: Activities organized on same will be taken as one

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).

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 before DVV Verification:

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 231 | 190 | 196 | 197 | 212 |

Answer After DVV Verification :

| 2021-22 | 2020-21 | 2019-20 | 2018-19 | 2017-18 |
|---------|---------|---------|---------|---------|
| 207 | 153 | 130 | 130 | 110 |

Remark : Revised values as per data attached and data template. Note: 5 days and above FDPS are to be consider here

2. Extended Profile Deviations

Extended Profile Deviations

No Deviations