SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

ARYA COLLEGE OF ENGINEERING

SP-40, INDUSTRIAL AREA (RIICO), DELHI ROAD, KUKAS
302028
www.aryacollegejpr.com

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

April 2024

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Arya College of Engineering (ACE) {AISHE_Code_C-25108} (Name changed as per AICTE Rules & Regulation in AY 2023-24 and previously known as Arya Institute of Engineering & Technology (AIET)) was **established** in the **year 2005** and managed by **All India Arya Samajis Society for Higher & Technical Education (AIASSHTE)**. AIASSHTE is managing **02 Engineering_Colleges** and **01 Pharmacy_College** situated at SP-40/42, Kukas_RIICO_Industrial_Area,_Jaipur_(Rajasthan)–302028.

Details of Colleges are as under:

01. **ACE** (previously known as AIET) **AISHE_Code_C-25108_First-Engineering-College of RTU** to achieve **NAAC-Accreditation with 'B++' Grade** and **2.96 Score** in 2019.

02. **Arya-College-of-Pharmacy** of the same society achieved **Accreditation with 'A' Grade_3.04 Score in the 1st Cycle of NAAC**.

03. ACE is Prominent and Pioneer college of Rajasthan established in year 2005 and spread over **5 Acres** of land with built up area of more than **3.2 Lakh Sq. Ft.** with lush green campus.

04. All the programs of ACE are **Approved by AICTE and Affiliated to RTU**. ACE provides **9 UG-Courses** and **3 PG-Courses**. Out of these, 4 courses CSE/IT/ECE/EE reaccredited by **NBA** during the period of 2012 to 2025 in different time spans showing the best practices of Governance, Leadership, Vision & Mission, Strategic and Perspective plan of the College.

05. **RTU-Certified 04 Centre-of-Excellences**: **AI-&-Robotics, e-Mobility, PCB-Manufacturing and Material-&-Concrete-Testing**.

06. ACE is considered **most Innovative College of Rajasthan** which has **03 Innovation and Incubation Centres** named as **MSME-HI/BI**, **RTU-Innovation-&-Incubation-Center** and AICTE approved I**DEA-Lab.**

07. Establishing 08 Start-Ups, winning World-Championship in Spain for RE of **Aloe E-Cell**.

08. **Dekho Infotech** has been registered at **e-GEM** portal as **OEM** for AI-Robotic-Lab and produces Ruby, Robocop, UV Sterlization, LIDAR Robots and Various AI & Robotics based Labs.

09. Under COE, e-mobility following produts are developed: Golf-Cart, e-ATV, e-GoCart, e-Vintage Car, e-PVAN, Wind Turbine, Lithium Battery etc.

10. Medical-Equipment devices (DTM, PML) are registered at CDSCO.

11. ACE has hosted AICTE sponsored SIH-Hardware Edition in 2022 and also won 1st prize SIH at MIT, Pune for Designing & Manufacturing of Digital Stethoscope.

12. ACE follows 02 Best Practices of **Innovation and Green Campus** with distinctive practice of **Research &**

Development in Multi-Discipline Area in **Medical & Agriculture**.

Vision

To emerge as the best educational institute and Work for Excellence in imparting quality education to the students to nurture their inherent talent as Innovative Professional in technical and managerial field there by making them competitive to meet all the future challenge of global economy.

Mission

- To create a Progressive Academic Environment by nurturing the Creativity, Ideas, Innovation and Skills in Students in order to achieve Qualitative Techno-Managerial Skills.

- To provide Excellent Ambience to enhance the Teaching-Learning processes amongst Students and Faculty members by building a determined team who are committed to the ideas of Integrity, Positive Thinking and Social Development to meet industry expectations and requirements.

- To make Students Globally Competitive by providing suitable Training, Value Added Certification Courses and Beyond Syllabus Academics in order to generate capacity to face competitions and placements and become imaginative mastermind and inventive issue solver while providing them safe and challenging environment.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

01. ACE is **presently NAAC Accredited, NBA_Accredited in CSE_branch** and Previously NBA_Accredited in Branches (CSE,ECE,IT,EE).

02.For the past decade, college has consistently ranked among the **Top-05 'A'-Category-Colleges in RTU-QIV-Ranking**.

03. **RTU-Certified-04 COEs (Highest among RTU-Affiliated-Colleges)**:

    o Artificial-Intelligence-and-Robotics

    o e-Mobility-Research-&-Skill-Development

    o PCB-Manufacturing-and-Applications

    o Material-Testing-&-Concrete-Technology

with State-of-the-Art facilities to prepare project from design-to-manufacturing.

04. ACE offers State-of-the-Art Infrastructure, facilities, and Best-Academics-Environment, resulting **38-RTU-Merits in past 03_years including_09_1st Rank**_highest in RTU.

05. Over **35-Patents** filled, **27-Published** and **08 in Exam-stage**.

06. ACE follows all AICTE/UGC-Initiatives & Programs.

07. **ACE Startups secured the First-Position in the Startup-World-Championship in Spain** for **Renewable-Energy Aloe-E-Cell**. Additionally, **Dekho-Infotech's products are listed on the GEM-Portal, GOI as an OEM for the manufacturing of Robotics-with-AI-Technology and Medical-Devices**.

08. ACE regularly facilitate Industrial-Visits such as **ISRO, RAPS, DRDO, CIPET, R-CAT, JMRC, BSDU** and **USA visit** (under **Sponsorship of DoIT-GOR**).

09. ACE has strong Alumni-Network, considered as **5th pillar of college**. Alumni-Portal **www.alumni.aryacollege.org** is also developed.

10. The college has **Best-Infrastructure, Innovative-Teaching-Techniques**, including **ICT-based-learning**.

11. ACE provided maximum **placement opportunities** and is known for its Centralize-Campus-Placements-Drives.

12. **4000+ Research-Papers** has been published in National-and-International Conferences/Journals i.e. **Scopus/IEEE/UGC** in past five years.

13. ACE has strong **Industrial-Institutional-Linkage** and **high number of functional_MOUs** with **IIT-Bombay-(FOSS), TCS, Infosys, Coding-Ninja, Symbiosis, Edureka, ICT, Eduskills, NASSCOM** etc.

14. ACE is a **Golden-Partner of Infosys-Connect-Program** and **TCS-iON Program**.

15. Paid_**Internships** are provided to **500+ students** leading to placements.

16. Highest participation in various-competitions, winning highest number of awards in **SIH, RTU-Hackathon, Ideathon and Startup Competitions**.

17. **First-College-in-Rajasthan to host AICTE-Sponsored-SIH-Hardware-Edition in 2022**. 29+Teams, 300+students participated.

18. **Won SIH and Cash-Prize of One-Lakh at MIT-Pune for D&M of Digital-Stethoscope**.

19. **ACE host and conducts many** startup **of RTU**-TEQIP. **FORTI, MSME-HI/BI-Startup-Program, Kawach-Program of IIT-Delhi**.

20. Study material available to the students for participating in **RPSC, AFCAT, & SSC programs**.

21. ACE created online-portal aryanotes.com for complete curriculum of **RTU**

22. Online-Video-Lecture-Series is hosted on Arya-College-YouTube-Channel to enhance learning.

23. Students are engaged by **Entrepreneurship-Development-Cell** and **Career-Guidance-Cell** for better future.

24. ACE has a dedicated **Skill-Development-Cell**, CRT-program for Campus-Placements.

25. ACE also has a dedicated **IQAC-Cell**, operational since 2012.

Institutional Weakness

01. The college requires to Bridge **Institutional-Industrial Technology gap** at the faster rate to produce more industry-ready technocrats.

02. College requires to mobilize resources from various sources especially from the Government agencies like **MSME, DoIT, and DST** to increase manufacturing facilities at college.

03. The college requires to **increase collaborations** with reputed Institutes like IITs & NITs to facilitate exchange of ideas and transform them into innovation and startups as they have a better ecosystem for the same.

04. The college needs to fulfil the aspiration and ambitions of the students and motivate them for acquiring better skill sets during college for better placement and living an **ethical honest life.**

05. The college needs to motivate faculty members to publish more **Research Papers in top-tier Journals and file more Patent**s, and **enrol in Ph.D**. programs to increase the number of the faculties with PhD.

Institutional Opportunity

01. ACE is looking forward for **academic flexibility** and introducing new courses by obtaining **academic autonomy**.

02. To implement the **New Education Policy (NEP)** into the current curriculum by introducing an **Intra-disciplinary** approach and ensure flexibility in academic adoption by both students and the institution.

03. To **boost placements** rates, the college will integrate the latest technologies to offer beyond curriculam courses and **industry-based learning**.

04. To equip students with **cutting-edge technology skill sets**, empowering them to innovate and initiate startups, thereby creating employment opportunities for others.

05. Enhancing students' **Entrepreneurship Skills** by inculcating ethical moral and honest values in their work, especially during this challenging period of technology transformation.

06. In line with AICTE and Government of India program like **Unnat Bharat Abhiyan**, students are encouraged to participate in community **outreach programs** such as village adoption, literacy program, skill

development program, tree plantation etc.

07. To develop an **ecosystem** for students aspiring for higher studies and creating opportunities for them to pursue and participate in central and state government services.

08. This is the best time to promote **R&D facilities** and engage in collaborative activities with the renowned Institution / University.

09. To enhance disciplinary cross learning with humanity are health and integrating engineering in these field for better learning.

10. **Integrating AI** to enhance teaching and learning.

11. Use of **ICT** with Audio-Visuals, Online Content, and AR & VR for enhanced learning.

12. To start **NASSCOM Skill Centers** to equip students with industry-relevant skills.

13. Backward integration with industries to teach industrial technology and foster technology-based skill sets through project creation and promotion.

14. To increase the number of **Workshops,Seminars,FDPs** to facilitate students and teachers learning of the latest Technology

Institutional Challenge

01. The college, and it students, faculties, and staffs requires training and learning on the emerging technologies such as AI, Robotics, PCB Manufacturing, Cyber Security, Data Analysis, Data Mining, etc.

02. Needs to adopt the emerging technologies at the earliest and Approving and Affiliating Bodies are also required to incorporate the same into the curriculum.

03. The college needs to conduct frequent Seminars, Conferences, Workshops, FDPs and Export Lectures to combat the challenging occurred by the rapid transformation of emerging technologies.

04. The college need to boost **alumni engagements.**

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

ACE follows the curriculum prescribed by the affiliating university, RTU, Kota for all 03_Programs_and_courses offered by the college. Since 2017, the institute has adopted **Choice-Based-Credit-System (CBCS)** as per the university curriculum in order to transform it into outcome-based education.

Academic committee finalizes the well-planned academic calendar and a proper time table at beginning of semester. It also **considers the gaps between the industry need and the syllabus and tries to bridge with Add-on Courses** it with various adjunct and add-on courses.

Total Unique Add On Courses/Students: 324/ 84.64%

Students undertaking Project Work/Internship/Training: 56.19%

Curriculum implementation is effectively carried out through session plans and handbooks. A detailed blown-up course file along with CO-PO mapping is prepared including the number of lectures to be taken and each topic covered by the faculties to ensure the **100% course coverage.**

Weekly syllabus completion reports track the progress of syllabus completion.

Teacher's diaries are maintained by all faculty members. **Course files, PPTs** and **digital lecture notes** are shared with students. **Continuous evaluation** process is also created through assignment submission, unit tests and midterm examination.

Tutorial and Remedial Classes are conducted regularly after taking feedback from the students twice in a semester. **Contents beyond syllabus** are taught through seminars and guest lectures.

Lot of emphasis is placed on **topics of gender**. Students are encouraged to follow the **MOOC's Courses** and to achieve the B. Tech (Hons.).

Sensitization, human-values and professional-ethics, disaster-management, environmental science etc in tune with the fast-changing world for developing social awareness and conscience. **Gender-sensitization** creates a positive outlook in students about gender roles, gender equality and women empowerment.

ACE hold events like Poster Presentations, role-plays, Skits, Essay Writing, case studies, Debates, PPT's and videos are used to encourage collaborative learning and promote learner's diversity.

A **comprehensive feedback system** is developed for taking inputs on curriculum improvements and teaching learning processes. Exhaustive feedback from student's teachers, alumni's and other stakeholders provides and input regarding the implementation of teaching learning processes. Thus, allowing a proper corrective measure to be taken in order to ensure continuous improvement of the Institute.

Teaching-learning and Evaluation

Effective processes of teaching, learning and evaluation are ensured through a **Well-Planned Academic Calendar**, elaborated teaching plans and evaluation in examination schedules.

Orientation and Induction Programs, Motivational Session's specific counselling and **Extra Classes for Slow learners**, **Mentor Mentee programs** and **continuous Internal Assessment** are done by the College to identify the needs of the students.

Teaching-learning process is most important hence training in form of **Class-Before-Class (CBC)** is taken and helps in preparing course files with comprehensive teaching material in digital format.

College also conducts **Remedial Classes, Bridge Courses, Communication Skills development programs, Pre-placement training, Group Discussions** etc., for the holistic development of students.

Arya Notes is an **online website/platform developed by College** to provide **Online PPT notes and Video links of all the courses.**

Experiential methods like **Project Work, Demonstrations, Internships and Industrial visits** are executed in practical subjects.

Participative learning: **Workshops, Conferences and Seminars, NPTEL videos.** Innovative/creative methods for student centric learning is used for learning, role-play and behavioural learning.

COs-POs for all the subjects are disseminated to all the stake holders including students. Student and faculty feedback are taken to assess the attainment.

College evaluates the **Attainment of COs and POs** by both direct and indirect assessment. Course and program outcomes for all subjects are shared with all Stake Holders Course, faculty and Exit Surveys are conducted to assess attainment of POs and COs.

Continuous evaluation is carried out in theory and lab subjects to suit the capabilities of diverse learners, Methods like **Assignments, Unit Tests, Viva, Quizzes-Seminars, Comprehension/listening test, Oral tests, Surveys and Paper Presentations** are included. Evaluation is transparent as internal assessment marks are communicated to the students and answers are discussed in the classes.

All complaints and grievances related to examination are handled and addressed within 2-3 working days. All circulars related to examinations are communicated by Exam Cell. Strict adherence to exam timetables and uploading deadlines is ensured.

Institute focus on **Internships projects and field visits** for making the learning process more students centric.

Enrolment % in last Year: 85%

Category based filled seats: 64.69%

Student-Teacher-Ratio: 12:1

Full-Time-Teachers: more than 100%

Pass-Percentage: 91.85%

Research, Innovations and Extension

Arya College of Engineering (ACE) is dedicated to cultivating a **culture of innovation, research-and-development** as an essential aspect for students, faculty, and the institution. With specialized **R&D cells, Incubation Centers**, and an **IPR Cell**, ACE fosters an **ecosystem** that nurtures student talents and empowers

faculty to undertake experimental projects, promoting continuous innovation on campus.

Under support of GOI, **startup programs**, of **MSME**, **DST & DoIT** Innovation Program, ACE has achieved notable milestones, hosting initiatives such as the **MSME Incubation_Centre**, **RTU Innovation_&_Incubation Centre**, alongside the **AICTE_IDEA-Lab**.

College provide cutting-edge infrastructure is evident in its latest acquisitions, including SOA machinery like **SMT, CNC, 3D_Printing, and PCB_Manufacturing**, enabling students to create **design-and-manufacture** abilities.

Dedicated entrepreneurship cell has created startups like '**Aloe E-Cell**' won the Start-up World Championship in Barcelona, Spain,'**DekhoInfotech**' is registered as an **OEM entity at the GEM-Portal**. Embracing an interdisciplinary approach and aligning with initiatives such as Make in India, ACE has developed cutting-edge-models in **Medical_Devices_and_Agriculture**, focusing on **Healthcare_ and_Agricultural_Advancements.**

ACE ensures students remain abreast of technological advancements through workshops, seminars, and industrial visits, motivating active participation in research, innovation, development projects with organizations like MSME, DST, DoIT.

Recognizing the transformative, ACE has introduced CSE-allied-branches in emerging-areas as CSE(AI), CSE(Cyber Security), AI&DataScience. For preparing students on **emerging-technologies** like AI, Robotics, Machine-Learning, IoT, Cyber-Security, Data-Science, Autonomous-Vehicle, Renewable-Energy, ACE integrates them into its curriculum, preparing students for industry demands and to increase placements.

ACE actively engages in **extension-activities**, organizing industrial-visits, workshops, seminars to enrich the academic experience and foster industry-academic collaboration.

Notably, the college's participation and success in prestigious Start-up & Innovation Competitions, such as **Smart-India-Hackathon and Ideathons**, **TEQIP-RTU, etc.** underscore its commitment to nurturing innovation and problem-solving skills among students.

ACE encourages student participation in competitions and workshops, showcasing their skills on a national platform and reinforcing the college's reputation for academic-excellence. Overall, **ACE stands as a beacon of innovation and excellence**, empowering students to become visionary leaders and make impactful contributions to society.

Grants Received: 51.85 Lacs

No. of Workshops on IPR/Research: 51

Average No. of Research Papers per Teacher: 2.06

Average No. of Book-Chapters: 6.79

Award for Community-Outreach: 76

Infrastructure and Learning Resources

Arya-College-of-Engineering_(ACE) is Pioneer College of Rajasthan, Established in 2005 and spread over **05-Acres** with Built-up-Area of more than **3.2 Lakh Sq.Ft.** Situated in RIICO-Industrial-Area, Kukas,Jaipur on Delhi-Road.

ACE Offers World-Class-Infrastructure which includes :

1. 45-Lecture-Theatre (Step-Up), out of which **38 are ICT-enabled**.
2. **67-State-of-the-Art Hi-Tech-Laboratories** including **CISCO-CCNA-Lab**.
3. 06-Spacious and Air-Conditioned Seminar-Hall with LCD_and_Interactive-Board.
4. Modern_Air-Conditioned_Auditorium with **Seating-Capacity of 450** with SOA AV-Aids-LCD-Projectors.
5. **Air-Conditioned Central-Digital-Library** spread over 800sq.mt. having Books/e-Books/Reference-Books, Journals/e-Journals, NPTEL-Videos, Magazines/News-Papers. Library is **automated by LMS 'Koha'** and **OPAC and DELNET.** ACE has also developed in-house Books-Search-Engine_**'i-Search'.**
6. Books issue process is automated by **Scanning Bar_Codes** though Books and student's I-Card.
7. **RTU-Certified-COE in 04-Domains**, under which following Industry-Oriented-Labs for R&D_&_Innovation_Activities.
   - Surface-Mounting-Technology-Lab
   - Robots-Manufacturing-Lab
   - Battery-Management and e-Vehicle-Manufacturing-Lab
   - PCB-Manufacturing-Lab
   - Concrete-Technology/Material-Testing-Lab
8. All Departments with Faculty/Staff_Cabins and Departmental-Libraries with PCs and Laptops with Internet.
9. **Hi-Tech Server-Room** having 04-Dedicated Servers to manage Hosting, Centralized-Network-Printing, Bandwidth, Database, Firewall-and-Security. **CISCO-Switches**_Media-Converter_and_**Optical-Fibre** for Stable_&_Reliable_Network.
10. **500Mbps Dedicated Lease-Line** for High-Speed-Internet.
11. **Wi-Fi**_Campus with **50+Access-Points**.
12. **Hi-Tech Air-conditioned_TV-Studio** having, Interactive-Board, Light-Board, 3 Video-Cameras, for Video-Recordings/Shoots/Interviews.
13. **T&P Cell with Air-Conditioned_Board-Room.**
14. Dedicated **Skill-Development-Cell, Entrepreneurship-Development-Cell, and Career-Guidance-Cell**, for soft/technical/entrepreneur-skills.
15. **MSME-HI/BI** and **RTU_Innovation_and_Incubation_Centre**, **AICTE-IDEA-Lab** for Designing-to-Manufacturing-Projects.
16. **Maa-Saraswati-Temple** for Holistic-Development.
17. **Outdoor & Indoor Sports_Facilities** includes Basketball/Volleyball/Tennis/Badminton-Courts/Cricket/Football-Ground, and Table-Tennis/Carom/Chess etc.
18. **Separate Hostel for 03-Boys/01-Girls** with Modern-Amenities.
19. **Open-Theatre** with Seating Capacity of 500+Students and Standing Capacity of 2000+Students. Open-Theatre also have inbuilt Stage and Music System.
20. **Well-equipped Gym_and_Yoga-Centre.**
21. Modern and Spacious **Cafeteria.**

22. **LCD-Screen provided in Open-Area** to celebrate the National/Ceremonies/ Commemorative-Events.
23. 150+CCTV, 15+DVRs, 20+Walkie-Talkies, 20+Security-Guards for **24Hrs Security.**
24. **Fire-Fighting-System** with yearly NOC with 02-Lakh_Litre_Tank and 15_hydrants strategically placed to Fight any Fire-Incident.
25. **Buildings are Certified** for Building-Safety-Measures.
26. Under Green-Campus, ACE strictly follows **Reduce-Recycle-&-Reuse_Policy**. Renewable-Energy through Solar-Panel-Plant (450-KW), Wind-Energy-Plant (15-KVA), and Biodegradable-Gas-Plant. Rain-Water-Harvesting-Tanks, STP-Plant, 800+ Trees/Plants/Pots/Lush-Green-Lawn. ACE follows Paperless Policy through Implementation of ERPs Lead-Squared, NPF, Koha etc.
27. To provide **barrier-free-environment**, ACE has PH_Washrooms, Lift, Wheelchairs, Ramps, Tectile Paths etc.
28. **Transport-facilities** for Students_Staffs_and_Faculty.
29. In-Campus_**Medical-Center with 24x7Ambulance Facilities.**
30. **Bank/ATM, ESI-Hospital, Police-Chowki & Super-Market** within 100m of campus.
31. **RO-Water-Cooler** for Cold-and-Hygienic-Drinking-Water.
    02-Gensets_inclusive_Capacity of 630kW for Uninterrupted-Power-Backup.
32. **Guest-House/Staff Quarters** with all Modern-Amenities.
33. For tranporting products, e-rikshaw is used and dumping e-vehicle is used for waste-disposal (Dry&Wet).

Augmentation Expenditure: 36.19%

Student Computer Ratio: less than 2:1

Maintenace Expenditure: 59.8%

Student Support and Progression

ACE provide cutting edge technologies, learning at the campus and to facilitate their **Holistic development** and progression. Monitors student performance and the progression of students to higher education.

College also holds its own dedicated **Skill-Development-Cell-(SDC), R&D-Cell, Innovation-Incubation-Cell-(IIC), Entrepreneur-Development-Cell-(EDC), Career-Guidance-Cell-(CGC)** and for placement training purposes **CRT-Cell** which are part of **Training-&-Placement-(T&P)-cell**.

Establishing **Grievance Redressal Cell, Anti-Ragging-committee** etc. helps in **Welfare measures to support students**.

Admission Cell created and provides opportunities for scholarship/freeship for backward and EWS students.

The College's concern for student progression to higher studies and/or to employment is a pertinent issue. Sustainable good practices that effectively support the students facilitate optimal progression. The institutional provisions facilitate the vertical movement of students from one level of education to the next higher level or towards gainful employment. Students qualifying for State/National/International level exam or competition should be identified.

College promotes inclusive **practices for Human Values, Social Justice** and better stakeholder relationships. College promotes value-based education for inculcating **Social responsibility** and good citizenry amongst its student community. The institution has the required infrastructure and promotes the active participation of the students in social, cultural, and leisure activities. Encouraging student's participation in activities facilitates developing various skills and competencies and **foster holistic development**.

The Alumna are a strong support to the College. An **active alumni association** can contribute to academic matters, student support as well as mobilization of resources – both financial and non-financial. The institution nurtures the **alumni association/chapters** to facilitate them to contribute significantly to the development of the institution through financial and non-financial means.

For the effective functioning of the institution, there are various committees working dedicatedly for the respective activities, which are fulfilled by the following committees like, **Research, Discipline, Cultural and Sports, Anti-Ragging, Library** and many more.

% of Students benefitted from Scholarship: 70.53%

% of Students benefitted from Competitive exam guidance: 77.19%

% of Placed Students & progressed to Higher Education: 77.63%

% of Students qualified competitive exams: 27.08%

No. of Awards for performance in Sports/Cultural: 49

Average no. of Sports/Cultural programs organised: 38

Governance, Leadership and Management

Arya College of Engineering (ACE) is dedicated to excellence in education, equitable treatment for all stakeholders, and **transparency in policies**. Guided by committed governance leadership and management, ACE adheres to stringent guidelines across teaching methodologies, placement procedures, and administrative practices. The institution's unified mission is to nurture student potential by providing top-tier resources, esteemed faculty, state-of-the-art infrastructure, and specialized labs and cells for academic and professional development. Emphasizing industry-relevant skills alongside ethical values.

ACE employs a multi-disciplinary approach, blending decentralization for stakeholder empowerment with centralization for effective coordination. Roles are clearly defined, and a robust work ethic is instilled to foster collaboration among all stakeholders. An IQAC Cell facilitates interactions to enhance participation and engagement, fostering excellence and integrity within the institution.

Faculty-Empowerment-Strategies are central to ACE's commitment to excellence and societal impact. Continuous development is prioritized to ensure sustained relevance and success, with faculty encouraged to engage in academics, organizational functions, outreach, collaborations, and projects. Financial support and incentives for higher education, transparent policies, and resources for research and development foster a

culture of innovation and skill enhancement.

Effective **Financial Management and Resource Allocation** are critical components of governance at Arya College of Engineering. The prudent management of financial resources not only ensures the sustainability of the institution but also fosters the creation of additional resources through grants and investments, facilitating the enhancement of infrastructure, academics, research, innovation, and technology absorption.

The IQAC Cell ensures efficacy in governance, leadership, and management activities. Robust feedback mechanisms, ERP solutions, and regular meetings facilitate continuous assessment, quality enhancement, and achievement recognition. Awareness programs and alumni engagement further enrich the quality assessment system, driving continuous improvement and excellence.

IQAC is significant for Training, Placements, Results, Research & Paper Publication, FDPs/Workshop/Conference, Online Learning, Student Scholarships, Best Practice/Distinctiveness Implementation, Student Feedbacks & Surveys, Various Committees/Clubs Deployment of Strategic Plans.

ACE remains committed to excellence and continuous improvement in all aspects of academic endeavor through effective governance, leadership, and management practices.

% of teachers provided financial support for attending professional events: 58.42%

% of Teachers participate in FDPs/ Training Programs: 58%

Institutional Values and Best Practices

Arya College of Engineering (ACE) acknowledges the importance of integrating revolutionary advancements like AI, Bio Medical Engineering, and EVs into its curriculum. It has established **Centres of Excellence (COEs)** in these technologies, fostering excellence among students, faculty, and stakeholders. Renowned for its R&D commitment, ACE's COEs, recognized by RTU. ACE's vision is to excel in emerging areas, fostering innovation and startup culture. Through its innovative practices, ACE prepares future technocrats and entrepreneurs, driving societal and industry advancements.

Under the New Education Policy NEP-2020, ACE has embraced Cutting-Edge-Technology for R&D, Innovation and Interdiciplinary approach particularly in Biomedical-Engineering and Agriculture. This initiative aims to revolutionize healthcare delivery, improve agricultural-practices, and contribute to societal well-being through accessible, equitable, sustainable solutions.

The objective of our best practices is to initiate sustainability and conservation of nature by utilizing all available resources on campus

ACE prioritizes sustainability and nature conservation, aligning with UN goals. Advanced technologies and practices reduce carbon emissions and preserve the environment. Steps include:

1. Rooftop-Solar (450kW) and wind-energy-systems.

2. Biogas-plant for cooking.

3. Rainwater-harvesting, sewage-treatment.

4. Annual tree-plantation drives.

5. Awareness events on environmental sustainability.

6. LED lights to minimize electricity usage.

7. Collective Laundry-Services for water and electricity conservation.

8. Special taps to prevent water wastage.

9. Waste-management with separate bins.

10. Reduce, Recycle, Reuse Policy for materials.

11. Regular green-audits.

12. Use of e-vehicles for campus transport.

13. Exporting surplus electricity.

14. Utilizing recycled water and embracing sustainability principles.

In the Field of Medicine:

ACE pioneers' innovations like the Bionic Hand, Digital Stethoscope, and UV Sterilization Robot. ACE also focuses on rural healthcare, developing diagnostic and therapeutic devices. Regulatory certifications validate the quality and reliability of ACE's medical innovations.

In the Field of Agriculture:

ACE develops IoT-based Agriculture Monitoring and Mobile Fertigation Systems to optimize farming practices. These innovations have received awards, grants, and patent applications, positioning ACE as a leader in agricultural technology.

ACE's medical devices have won prizes in various competitions and received regulatory approvals. Collaborations with organizations like BMVSS and recognition. ACE's agricultural innovations have received grants and won competitions, indicating their potential impact on farming practices.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	ARYA COLLEGE OF ENGINEERING
Address	SP-40, Industrial Area (RIICO), Delhi Road, Kukas
City	JAIPUR
State	Rajasthan
Pin	302028
Website	www.aryacollegejpr.com

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Himanshu Arora	0141-2820700	9982621591	-	principalaiet@arya college.org
IQAC / CIQA coordinator	Kshitiz Agarwal	0141-2820711	9001996649	-	registrar@aryacolle ge.org

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular Day

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details

State	University name	Document
Rajasthan	Rajasthan Technical University	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC		
12B of UGC		

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	27-07-2020	12	Extension of Approval is granted on Annual Basis
AICTE	View Document	27-07-2020	12	Extension of Approval is granted on Annual Basis
AICTE	View Document	27-07-2020	12	Extension of Approval is granted on Annual Basis
AICTE	View Document	27-07-2020	12	Extension of Approval is granted on Annual Basis
AICTE	View Document	27-07-2020	12	Extension of Approval is granted on Annual Basis
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AICTE	[View Document](#)	27-07-2020	12	Extension of Approval is granted on Annual Basis
AICTE	[View Document](#)	27-07-2020	12	Extension of Approval is granted on Annual Basis
AICTE	[View Document](#)	27-07-2020	12	Extension of Approval is granted on Annual Basis
AICTE	[View Document](#)	27-07-2020	12	Extension of Approval is granted on Annual Basis

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

Location and Area of Campus				
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**
Main campus area	SP-40, Industrial Area (RIICO), Delhi Road, Kukas	Urban	5	24797

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,Computer Science And Engineering,Computer Science and Engineering	48	Intermediate	English	360	358
UG	BTech,Electrical Engineering,Electrical Engineering	48	Intermediate	English	60	26
UG	BTech,Electronics And Communication Engineering, Electronics and Communication	48	Intermediate	English	30	0
UG	BTech,Mechanical Engineering,Mechanical Engineering	48	Intermediate	English	60	17
UG	BTech,Information Technology,Information Technology	48	Intermediate	English	60	59
UG	BTech,Artificial Intelligence And Data Science,Artificial Intelligence and Data Science	48	Intermediate	English	120	119
UG	BTech,Computer Science	48	Intermediate	English	60	60

	And Engineering Cyber Security,Computer Science and Engineering Cyber Security					
UG	BTech,Computer Science And Engineering Artificial Intelligence,Computer Science and Engineering Artificial Intelligence	48	Intermediate	English	60	60
UG	BTech,Civil Engineering, Civil Engineering	48	Intermediate	English	60	15
PG	Mtech,Computer Science And Engineering,Computer Science and Engineering	24	B.Tech	English	18	4
PG	MBA,Master Of Business Administration,Master of Business Administration	24	Graduation	English	60	58
PG	Mtech,Civil Engineering, Structural Design	24	B.Tech	English	18	11

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	19				21				135			
Recruited	10	9	0	19	14	7	0	21	74	61	0	135
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				73
Recruited	65	8	0	73
Yet to Recruit				0

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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				34
Recruited	34	0	0	34
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	10	9	0	13	6	0	0	0	0	38
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	1	1	0	67	60	0	129
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**
	6	0	0	6

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	465	181	0	3	649
	Female	71	21	0	0	92
	Others	0	0	0	0	0
PG	Male	36	8	0	0	44
	Female	23	9	0	0	32
	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	73	71	38	38
	Female	14	17	13	4
	Others	0	0	0	0
ST	Male	30	37	27	6
	Female	4	6	5	7
	Others	0	0	0	0
OBC	Male	137	127	69	63
	Female	20	18	17	11
	Others	0	0	0	0
General	Male	454	336	154	79
	Female	85	75	40	29
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		817	687	363	237

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	College is approved by All India Council for Technical Education (AICTE) and affiliated to Rajasthan Technical University (RTU), Kota and thus follows the curriculum prescribed by the parent university RTU. College does not hold an autonomous status at present that allows the inclusion of programs and courses beyond the prescribed syllabi. However, College does align its vision with NEP for the holistic development of the learners through its own myriad ways. College also offers various programs that promote interdisciplinary interaction among students and faculty. College at present offers B.Tech, M.Tech & MBA programs. College have been provided with a few options by the parent university (RTU) where a brief interface between humanities, environment, value based education takes place. To name a few, courses on communication, soft skills, human values and more have been ingrained and regularly taught by faculties. College is competent enough with well qualified faculty to address the interface between Technology and humanities, provided the parent university (RTU) gives the permission to run more such cases. In order to fill the aforementioned gaps, \ College organizes regular activities such as Blood Donation camps, Human Values projects and promotes various courses to facilitate the multidisciplinary approach towards teaching and learning process. In order to promote more multidisciplinary research, College has recognized Incubation Cell & Centre of Excellences. In order to introduce the element of interdisciplinary nature of subjects as suggested in NEP, the parent university (RTU) has introduce choice based elective subjects.
2. Academic bank of credits (ABC):	College keeps a record of the credits earned by each and every student. It also encourages and help the students through mentors to earn more and more credits. As we do not hold autonomous status, we are not in a position to consider the credits which can be earned by the students from other universities either in India or abroad. However, RTU has started process of registration of students for ABC from 2023-24 onwards.
3. Skill development:	College since its inception has been vocal about the importance of skill development and has been putting in multiple measures in this regard. College has a

	specific Skill Development Cell (SDC) that caters to professional and soft skills development of the students. College has tie ups with multinational companies in this domain and regular faculty training with certifications have eased the process of transferring the required skill sets. The courses on soft skills have been assimilated in the regular timetable and have been assigned internal grading system to encourage participation. Apart from this; the parent university (RTU) has introduced course on Universal Human Values which deals with inculcating value education among students.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	The Indian knowledge system and culture essays a rich tradition that needs to be cherished with sustainable efforts. College despite the restricted privileges allowed by the AICTE/ RTU fosters the promotion of Indian culture and values by significant clubs. RECOGNIZED BODIES: College is associated with Various national societies and organizations for promoting Indian art forms. College organizes regular events with Akshay Patra, Gram Panchayat, Sikshan Sansthan etc. to promote interest about the traditional and rich art forms in the budding technocrats. CELEBRATION OF NATIONAL DAYS/ FESTIVALS/: Under NSS club, College regularly organize and celebrate all National Days and Festivals in own premises with enthusiasm where Teacher and Students glorify the feeling of pride for unity in diversity and the unbroken national spirit. NSS CLUB works on the following objectives: • To celebrate the Unity in Diversity of our Nation and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our Country. • To promote the spirit of national integration through a deep and structured engagement between all Indian States and Union Territories through a yearlong planned engagement between States. • To showcase the rich heritage and culture, customs and traditions of either State for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity. • To establish long-term engagements and, to create an environment which promotes learning between states by sharing best practices and experiences.
5. Focus on Outcome based education (OBE):	College has already adopted Outcome Based Education (OBE) system as envisaged in NEP for evaluating performance, knowledge and skills of

	students through the attainment of POs, PSOs and COs. The faculty members provide a transparent path way for student success by writing clear and comprehensive COs as suggested by Bloom's Taxonomy. The COs are then mapped as the scale of 0 to 3, where 0 is used for no correlation and 3 is used for strong correlation.
6. Distance education/online education:	With the onset of the pandemic, the concept of online education has strengthened its roots all across the globe. College has taken some of the pioneer steps in providing online education with the options of Online Classes through Paid Zoom Platform, live and recorded lecture facility. The aim is to address the limited resources at the learner's end and the vision culminated in the establishment of well equipped digital studio. The studio enables the learners to study at their convenient time and place. All the lectures for all curriculum-based subjects are pre-recorded and made available at the digital library, Website of the college (aryavideonotes.com) & (aryanotes.com)

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes, The Election Literacy Club (ELC) has been set up in the College, which is active and plays its role by implementing directions given to it.
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	The ELC Committee has been set up with the following members; 1. Dr. Arvind Agarwal (President) 2. Dr. Puja Agarwal (Dean & Vice President) 3. Dr. Himanshu Arora (Principal) 4. Mr. Kshitiz Agarwal (Registrar & IQAC Coordinator) 5. Mr. Rajesh Kumar Jaiswal (Assistant Professor) 6. Ms. Shilpi Mishra (Exam Controller) 7. Mr. Tarun Pradhan (Student Coordinator) 8. Ms. Chandni Raj (Student Coordinator)
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	Awareness Programs through different session for Enrollment of Voters through Mobile App who have completed age of 18 years. In these session, Enrollment process was also explained.

privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	
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.	Students are motivated and explained the importance of Voting through different Voter Awareness Drives.
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.	ELCs are active and following up with all the students who are not yet enrolled as voters with valid ID Proof.

Extended Profile

1 Students

1.1

Number of students year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1568	1256	1318	1603	1865

File Description	Document
Upload Supporting Document	[View Document](#)
Institutional data in prescribed format	[View Document](#)

2 Teachers

2.1

Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 411

File Description	Document
Upload Supporting Document	[View Document](#)
Institutional data in prescribed format	[View Document](#)

2.2

Number of teaching staff / full time teachers year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
132	130	138	146	161

3 Institution

3.1

Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
712.87	489.38	406.47	631.31	826.29

File Description	Document
Upload Supporting Document	[View Document](#)

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1

The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

Response:

The College meticulously adheres to the University's_guidelines in implementing its curriculum_&_follows a well-defined process to ensure the effective delivery of its curriculum. To achieve the objective of delivering quality_education, ACE has established a comprehensive_learning_&_evaluation_process.

In terms of adherence to the **Academic_Calendar**, College follows a structured approach:

- The Academic_Calendar, issued by ACTE/RTU at the commencement of each semester, becomes the foundation for ACE's_academic_planning.
- College's Academic_Committee formulates its own_calendar, aligning it with the broader academic_activities outlined by RTU. Which, encompasses the commencement of classes, schedules of unit-wise course_coverage, institutional_activities, and tentative_schedules of internal/external_examinations.
- The academic_calendar is disseminated through notice-boards_&_college_website.
- **Subject_Allocation** to faculties is a thoughtful process, sanctioned by HODs and the Principal, taking into consideration faculty members' **choices, experiences, specializations**, **and past-results** in specific_subjects.
- Faculty_members meticulously prepare **Log-Diaries, Attendance-Registers**, **lecture-plans, blown-ups, subject-notes, and laboratory-plans, ensuring alignment with CO-PO-PSO.**
- A weekly-report, detailing of syllabus-coverage, notes-status, total-lectures conducted, average_attendance etc., is submitted by faculties. Which is reviewed by Principal_&_HODs. Necessary corrective_actions are suggested and implemented.
- Regular departmental_meetings to address academic_issues, monitoring the implementation of the academic_calendar.
- The College integrates various experiential_learning_methodologies as, encompassing project-work,_field-visits,_industry-visits,_science-exhibitions,_workshops,_guest-lectures,_workshops,_research-activities,_&_seminars/ conferences.

Continuous_Evaluation is inherent in the process, involving assignment,_unit-tests,_midterm-examinations. Answer-sheets are routinely shared with students, for performance review.

Adhering to the RTU_curriculum, the College_endeavors to bridge the gap between academia_&_industry. This is achieved through the organization of technical-courses,_guest-lectures,_internships, and the active promotion of research_&_innovation alongside regular academic_schedules.

During the global_pandemic of COVID-19, the College swiftly adapted to the new normal. Online_teaching-learning_tools such as **Zoom, Microsoft_Teams, and Google_Meet** became the conduits for effective_curriculum delivery.

Faculty-members utilized diverse resources, including video-lectures, PowerPoint-presentations, e-lecture_notes, and NPTEL-videos, ensuring a seamless transition to virtual-education. Online_examinations were conducted on the Google-Classroom platform, and faculty_members embraced online_evaluation methodologies.

The College's commitment to **Continuous_Internal_Evaluation_(CIE)** is evident in its multifaceted_approach:

- Student_performance is initially gauged through faculty_evaluation of assignments completed after each_unit.
- Periodic unit-tests, two mid-term exams, seminars and projects contribute to a comprehensive_assessment of student_capabilities.
- Identification of slow-learners prompts individual discussions to understand their challenges, enabling the implementation of remedial measures.
- Practical_laboratory_assessments involve a meticulous check of lab-records for correctness in diagrams,_procedures,_measurements,_&_conclusions. Viva-voce examinations further evaluate students' practical understanding.
- The final internal_practical_examination mirrors the external_practical_examination pattern, adhering to RTU_standards.
- Regular reviews of attendance and student_performance facilitate timely corrective_actions. Parent_Teacher_Meetings_(PTMs) organized to underscore the importance of focused study_efforts.
- Marks obtained by students in mid-term theory_papers, internal_&_external_practical_examinations, seminars, practical-training, and project_work are communicated to the University for incorporation in detailed marks_sheets, following the prescribed evaluation_criteria.

> **In summary, College, through its meticulous planning and well-documented_processes, stands as a testament to its commitment to providing a holistic_&_effective education, both in normal_times and during the challenges presented by the COVID-19_pandemic. The College's adaptability_&_resilience showcase its dedication to nurturing_technologically adept_&_socially responsible individuals.**

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

1.2 Academic Flexibility

1.2.1

Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

Response: 324

File Description	Document
List of students and the attendance sheet for the above mentioned programs	[View Document](#)
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	[View Document](#)
Institutional data in the prescribed format	[View Document](#)
Evidence of course completion, like course completion certificate etc. Apart from the above:	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

Other Upload Files	
1	[View Document](#)

1.2.2

Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Response: 84.64

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
2483	736	1231	987	1004

File Description	Document
Upload supporting document	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

1.3 Curriculum Enrichment

1.3.1

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

Response:

The College places significant emphasis on integrating cross-cutting issues, including Professional Ethics, Gender Sensitization, Human Values, Environment, and Sustainability, into its curriculum. Recognizing the potential positive impact on students in terms of education and societal commitment, the College has implemented courses dedicated to these crucial areas.

Gender Sensitization: Under this initiative, the College actively educates students about equal rights, the importance of creating equal opportunities, and fostering equality among individuals. Legal aspects related to gender sensitization are also covered. The students are introduced to concepts such as feminist relationships, responsibilities, and gender identities. Various efforts have been made to promote gender equality, including:

- Ensuring equal opportunities for everyone, with a notable presence of more than **40% female faculty**.
- Establishment of a **Women's Grievance Cell**.
- Ensuring equal representation of **women in all Student Councils and various committees**.
- Deployment of **women wardens** with security guards in the girls' hostel.
- Provision of **health club facilities** for males and females separately.
- Celebration of **Women's Day** to highlight and commemorate the achievements of women.

Environment & Sustainability: Addressing the critical concerns surrounding the environment and sustainability, the College conducts **regular workshops and programs** in the campus. Emphasis is placed on developing **eco-friendly measures**, and students are educated on topics such as the **ecosystem, natural resources, biodiversity, and resource management**. The College has taken various steps to promote environmental sustainability, including:

- Organization of **awareness programs** initiated by the National Service Scheme (**NSS**).
- Implementation of **solar vehicles** on the campus and a 45**0 KVA solar plant** powering the entire campus.
- Emphasis on energy conservation through initiatives such as the **use of LED bulbs manufactured in the campus**.
- Establishment of a power correction factor equipment for optimum energy utilization.
- Regular **tree plantation drives** and participation in the Swachh Bharat Campaign.
- Implementation of a **biogas plant** and a compost machine for converting kitchen waste into manure.
- Pledge for **single use plastic-free campus**.
- Development of a **green campus** with rich flora and fauna.
- Introduction of an Environmental Science and Engineering course.
- Setup of **Sewage Treatment Plants** (STP) for recycling wastewater.
- Regular external Green, Energy and Environment audits.

Human Values and Professional Ethics: The College recognizes the integral role of human values and professional ethics in education. The objective is to instill values such as honesty, hard work, integrity, and character building. This course is **introduced from the first year of engineering** to ensure a synchronous relationship between education and ethical values. Efforts made by the College in this regard include:

- Integration of Human Values teaching from the very beginning of the engineering curriculum.
- Establishment of an **anti-ragging campus**.
- Engagement in NSS activities, motivational talks, awareness programs, spirituality, and human value seminars.
- Association with the Akshaya Patra Foundation to provide **mid-day meals** to schools.
- Association with **Goshala** to provide Food to cattle on every Thursday.
- Annual organization of **blood donation camps** in collaboration with social organizations.
- Conducting a **week-long induction program** for first-year students to instill ethical values.

In conclusion, the College's commitment to incorporating cross-cutting issues into the curriculum reflects its dedication to holistic education, ethical values, and sustainable practices. These efforts not only contribute to the personal and professional development of students but also foster a sense of responsibility towards society and the environment.

File Description	Document
Upload Additional information	[View Document](#)

1.3.2

Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

Response: 54.34

1.3.2.1 **Number of students undertaking project work/field work / internships**

Response: 852

File Description	Document
Upload supporting document	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

1.4 Feedback System

1.4.1

Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website

Response: B. Feedback collected, analysed and action has been taken and communicated to the relevant bodies

File Description	Document
Feedback analysis report submitted to appropriate bodies	[View Document](#)
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	[View Document](#)
Action taken report on the feedback analysis	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)
Link of institution's website where comprehensive feedback, its analytics and action taken report are hosted	[View Document](#)

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1

Enrolment percentage

Response: 53.21

2.1.1.1 **Number of seats filled year wise during last five years (Only first year admissions to be considered)**

2022-23	2021-22	2020-21	2019-20	2018-19
687	363	237	363	387

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

2022-23	2021-22	2020-21	2019-20	2018-19
1116	678	678	678	678

File Description	Document
Institutional data in the prescribed format	[View Document](#)
Final admission list as published by the HEI and endorsed by the competent authority	[View Document](#)
Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.	[View Document](#)

2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

Response: 64.69

2.1.2.1 **Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)**

2022-23	2021-22	2020-21	2019-20	2018-19
277	168	128	180	207

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

2022-23	2021-22	2020-21	2019-20	2018-19
430	264	264	263	263

File Description	Document
Institutional data in the prescribed format	[View Document](#)
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	[View Document](#)
Copy of communication issued by state govt. or Central Government indicating the reserved categories(SC,ST,OBC,Divyangjan,etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	[View Document](#)

2.2 Student Teacher Ratio

2.2.1

Student – Full time Teacher Ratio
(Data for the latest completed academic year)

Response: 11.88

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 and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Response:

At Arya College of Engineering, we prioritize students, offering enriching learning experiences through experiential and participative learning, alongside problem-solving methodologies and ICT integration. This approach prepares students for professional challenges.

(A) Experiential Learning

1. ACE prioritizes Experiential Learning to perform beyond curriculum experiments under **AICTE IDEA Lab**, **RTU-Certified-Labs** like **AI & Robotics-Lab, PCB-Manufacturing-Lab, e-Mobility-Lab, Material-Testing & Concrete-Technology Lab, SMT-Lab** etc.
2. ACE has **First MSME Incubation Center, First RTU Innovation & Incubation Center and Captive Arya-Incubation-Center** to develop the skills of Designing to Manufacture among the students.
3. ACE organized various Industrial-Visits like **ISRO, RAPS, DRDO, CIPET, R-CAT, JMRC, BSDU** and **USA visit** under **Sponsorship of DoIT-GOR. Paid Internships** provided to 500 students in various companies under the **Earning-while-Learning-Scheme** to enhance their practical knowledge and to make aware of the industry based learning.
4. ACE has strong **Industrial-Institutional-Linkage** with **TCS, Infosys, Coding-Ninja, IIT-Bombay-(FOSS), Symbiosis, Edureka, ICT, Eduskills, NASSCOM** etc. for joint academic programs, collaborative research, internships, visits etc.
5. ACE encourages students and faculty members to enroll in **MOOC courses** for **Credit Based Education System.**
6. ACE emphasizes laboratory, Internships and project-based learning, following the Outcome-Based Education System & RTU guidelines.
7. ACE provided opportunity for **PAID Internship** leading to Placements in 8th Semester.

(B) Participative Learning:

1. ACE's Industry-Institute-Interaction Committee organizes Interactive-Sessions with Industral-Experts, HR-Conclaves, and facilitates regular Industrial-Visits, Fieldwork, and Paid-Internships to Bridge the Gap between the Institute and Industry.
2. Utilizing classroom discussions and PowerPoint presentations to actively promote student participation and interaction.
3. ACE has established numerous student-run Technical and Non-Technical Clubs, organizing multiple activities.
4. ACE annually organizes "Shradhanjali," a National Level Technical Symposium cum Fest, where students showcase their competitive skills and talents.
5. Engaging in academic and co-curricular activities nurtures problem-solving-skills and fosters the generation of solutions.
6. Special Cells like SDC/EDC/CGC are established for Personalilty Development programs.
7. Special Classes for Aptitude/Verbal-Ability/PI/GD/Quantitative-Analysis are provided.

(C) Problem Solving Methodologies

1. ACE has implemented a well-formulated Outcome-Based Education System, emphasizing application-based problem solving.
2. ACE regularly organizes various student development and problem solving activities for student including Pre-Placement Training, Soft- Add-on Courses, Guest-Lectures, Workshops, Conferences, Skills-Development, Group-Discussions, Case-Studies, Role-plays, Presentations,

Midterm-Papers, Home-Assignments for overall development of the students.
3. Video clips, presentations, and online demonstrations are utilized for interactive learning.
4. The Institute adheres to the AICTE model curriculum and paper pattern to enhance students' problem-solving skills.
5. Additional Problem Solving Sessions help students tackle more applied problems, fostering discussion and numerical problem-solving.
6. Students are encouraged to prepare for competitive exams like GATE/GRE/CAT, with on-campus classes provided.
7. Institute has implemented e-Governance Portal www.aryanotes.com for RTU Notes, Assignments, Solutions and Video Lectures.
8. For Beyond Curricula Exposures, ACE offers Advanced Industrial Labs like Advance AI Robotics Lab, AICTE IDEA Lab, SMT Lab, e-Vehicle Manufacturing Lab.

ICT Tools & Resources to Support the Academics

1. 38 ICT enabled Classrooms.
2. Hi-Tech Server Room with 04 Dedicated Servers.
3. 500 Mbps Dedicated Lease-Line.
4. 06 Seminar-Halls with LCD & Interactive Board.
5. Digital-Library with DELNET, Koha-ERP, OPAC, NPTEL-Videos.
6. ACE YouTube Channel for Video Lecture Series.
7. During the COVID-19 Pandemic, the College seamlessly transitioned to online teaching with tools like Zoom and Microsoft-Teams.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

2.4 Teacher Profile and Quality

2.4.1

Percentage of full-time teachers against sanctioned posts during the last five years

Response: 100

2.4.1.1 **Number of sanctioned posts year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
132	130	138	146	161

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	[View Document](#)

2.4.2

Percentage of full time teachers with NET/SET/SLET/ Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)

Response: 13.72

2.4.2.1 **Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
23	23	17	20	14

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	[View Document](#)
Institution data in the prescribed format	[View Document](#)

2.5 Evaluation Process and Reforms

2.5.1

Mechanism of internal/ external assessment is transparent and the grievance redressal system is time- bound and efficient

Response:

ACE has a transparent Internal Assessment Process and Grievance Redressal System. Faculty members conduct continuous Internal Assessments alongside RTU prescribed Mid-Term Exams. External Assessment is done by RTU, Kota, further strengthens transparency. Moreover, our comprehensive 15 days orientation/Induction program for newly admitted students ensures they are well-informed about exams, evaluations, grievance procedures and for extra curricular activities.

Internal Assessment & Redressal System

1. At commencement of semester, faculty members comprehensively outline course outcomes and assessment tools utilized, especially those extending beyond RTU examinations.
2. The RTU prescribed Internal Examination schedule is communicated well in advance to students via the Academic Calendar.
3. For Theory Courses, Internal Assessment involves 02 Mid-Term Exams, Assignments / Tutorials, Class Tests / Quizzes, and OBTs.
4. Lab Courses' Internal Assessment includes 02 Mid-Term Practical Exams and ongoing evaluation of experiment performance, including performance viva and lab record submission, guided by well-defined rubrics explained during lab sessions.
5. All Mid-Term Exams are centrally managed and conducted by the Examination Department to ensure smooth administration.Timetables, Seating Plans, and Duty Charts are prepared and communicated to faculty members well in advance.
6. Faculty members adhere strictly to RTU End-Term Exam patterns and AICTE Examination Reform Policies when crafting Mid-Term Question Papers, which are reviewed and approved by the department's moderation committee before submission to the Examination Department and Authorities.
7. Course teachers are responsible for evaluating answer sheets. Evaluated Answer Sheets are distributed to students, who can address any unchecked, unmarked, or re-totaling mistakes through a Revaluation Form.
8. Students are encouraged to discuss grievances with the HoD and Exam Department.
9. Attainments through other activities are assessed using rubrics, ensuring comprehensive evaluation.

External Assessment Redressal System

1. External Exams are scheduled and conducted as per RTU, Kota Academic Calendar.
2. Students appear for their External Theory Exams at the centers provided by RTU, Kota.
3. Results are declared in the due course of time by the RTU, Kota.
4. If any student has grievances regarding the result then they need to fill a Grievance Form which has options like rechecking, revaluation, etc. provided by RTU, Kota and submit it in the college within the specified period.
5. Grievances are redressed within a specified period of time.
6. External examiners from reputed colleges are invited to conduct external laboratory course examinations.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

2.6 Student Performance and Learning Outcomes

2.6.1

Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the

institution are stated and displayed on website

Response:

ACE places utmost importance on the Universal Predefined Program_Outcome (PO1-PO12 for Engineering_Programs and PO1-PO6 for Management_Program). In accordance to the guidelines of UGC, NBA, and NAAC, we ensure alignment between these Program_Outcomes (POs), Program_Specific_Outcomes (PSOs) and Course_Outcomes (COs). **Continuous analysis** of these indicators, contribute to the improvement of learning outcomes across the programs offered.

The college and department rigorously follows the Vision and Mission for COs and PSOs before the introduction of any program, seeking feedback from all stakeholders. Subsequently, these POs/PSOs/COs are prominently displayed across various platforms including the **College-website, notice-boards, central and departmental-libraries**, other strategic areas of campus. Also, they are consistently published in Lab-Manuals, and Course-Files, ensuring widespread dissemination and understanding among students, faculty, and staff.

COs encompass all the activities and teaching methods delivered to students for a specific course, incorporating both Internal and External Assessments. **Internal-Assessments** encompass internal evaluation through various **assignments**, Mid Terms, internal work in projects, and lab, while **External-Assessments** include university (end semester) exams evaluation through external lab assessments, projects, and end-semester trainings and internships.

The process of **defining COs** begins with identifying a faculty member who possesses expertise in the course. Utilizing **Bloom's Taxonomy** and RTU University Syllabus as external tools for PO, PSOs, PEO, all feasible COs are prepared and display. After thorough reviews, the finalized COs are presented to the Academic Committee for approval and communicated to all. Semester wise FDPs/Workshops are conducted for the understanding and awareness. The objective is to ensure that all stakeholders comprehend the courses or subjects being taught and grasp their associated outcomes in terms of Cos, Pos and PSOs.

CO design guidelines are provided to faculty members, incorporating the following characteristics:

1. They utilize verbs that indicate how student work can be observed.
2. The focus is on what the student should be able to do, not on what the course teachers.
3. This reflects what the student should be able to do after successfully completing the course, not on what they do during the course.
4. They can usually be assessed in more than one way.

Checklist for COs:

CO1: Are they written using action verbs to specify definite observable behavior?

CO2: Does the language describe students' behavior rather than teachers' behavior?

CO3: Do the outcomes clearly describe and define the expected abilities, knowledge, values, and attitudes of students in the course?

CO4: Is it possible to collect accurate and reliable data for each outcome?

CO5: Does it promote lifelong learning and the ability to apply acquired knowledge?

COs are crucial for designing courses in a logical and analytical manner, progressing from simple to complex, known to unknown, and in a chronological order. It is imperative that all stakeholders of the institution, including management, principal, HODs, faculty members, students, and alumni, are well-informed about the COs, POs and PSOs. It helps everyone to strive for the highest scores and credits understand the components of teaching included in the syllabus, course, and curriculum. The teaching and learning community should learn these aspects and engage in assessment activities.

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

2.6.2

Attainment of POs and COs are evaluated.

Explain with evidence in a maximum of 500 words

Response:

In the era where education is increasingly **outcome-based**, evaluating students' learning skills and knowledge is paramount. This process is continuous, real-time, and comprehensive, requiring ongoing efforts from the college to enhance outcomes.

The process of attaining POs/PSOs/COs begins with finalization of the COs. After mapping of COs with Pos/PSOs. Finally, the assessment of both COs and POs at different stages are done during semester.

Attainment of COs

As an RTU Affiliated College, ACE divide the evaluation process for students into two distinct parts: **Internal-Evaluation and External-End-Term-Evaluation.**

With new RTU guidelines, the **Internal-component in theory-courses carries 30%_weightage**, which encompasses Mid-Term Exams, Assignments/Unit Tests, etc. The remaining **70%_weightage** is allocated to the **End-Term Theory-Exams** of RTU.

The practical learning is divided into Internal-Assessment and External-Assessment. **Internal-Assessment** constitutes **60%** of the weightage, encompassing **practical** conducted in the lab/ project-work/practical-training/internship. The remaining **40%** is allocated to **External-Assessment**, conducted at end of semester by RTU for evaluating practical-lab courses.

With completion of coursework, including Internal/External Assessments, the Direct_Attainment of COs is achieved.

Hence, COs attainment is calculated as **90%_directly and 10%_indirectly**. The indirect attainment is measured through **feedbacks/surveys** from stakeholders.

At ACE, attainment goals are established as:

Level-1 targets 60%

Level-2 aims for 70%,

Level-3 sets the goal at 80% and above.

Goals are completed by various activities related to the subject, course, curriculum. As complexity of subjects varies, with more challenging subjects having more intricate COs while simpler subjects have more straightforward outcomes.

ACE also utilizes a **CAMU_ERP_System** to analyse the COs of each subjects of semesters as defined by RTU's curriculum.

As Attainments of COs are received/mapped, the appropriate action to provide awareness to FMs to increase the COs targets for the subject. If target is not achieved, action plan is reviewed by all stakeholders, and new recommendations are given to the course-coordinator to set new targets of difficult COs. The ERP also helps to understand industrial gaps which is filled by **add-on and certificate_programs** for better results and placement.

The calculation of **PO_Attainment** involves two steps. Firstly, determined through the Direct-Assessment of CO-PO Mapping, where the COs-Attainment values are derived by comprehensive analysis. Secondly, a mathematical calculation is performed. This calculation involves a pure Direct-Attainment calculation, and this calculation includes **80%_Direct-Assessment and 20%_Indirect-Assessment**, based on feedback and surveys from Students, Teachers, Alumni, companies, and HRs. The calculation procedure and sample attainment sheets are provided in the documents attached for ready reference.

The mapping of COs and POs, PSOs, and PEOs is conducted at the beginning of each semester. This process allows us to understand the outcomes of the teaching-learning process and assess the performance of both students and teachers. By mapping COs to POs, PSOs, and PEOs, we can ensure alignment between what is taught and what is expected to be achieved at the program level. This proactive approach helps in setting clear objectives for the semester and facilitates effective teaching strategies to achieve desired outcomes.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

2.6.3

Pass percentage of Students during last five years (excluding backlog students)

Response: 91.85

2.6.3.1 **Number of final year students who passed the university examination year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
311	325	368	432	446

2.6.3.2 **Number of final year students who appeared for the university examination year-wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
344	345	380	457	523

File Description	Document
Institutional data in the prescribed format	[View Document](#)
Certified report from Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree programwise / year-wise.	[View Document](#)
Annual report of controller of Examinations(COE) highlighting the pass percentage of final year students	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

2.7 Student Satisfaction Survey

2.7.1

Online student satisfaction survey regarding teaching learning process

Response: 3.91

File Description	Document
Upload database of all students on roll as per data template	[View Document](#)

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1

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

Response: 14.26

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

2022-23	2021-22	2020-21	2019-20	2018-19
0	2.25	0	7.85	4.16

File Description	Document
Upload supporting document	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

3.2 Innovation Ecosystem

3.2.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS),including awareness   about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

Response:

In 2015, ACE recognized the significance of innovation and the emergence of new technologies worldwide. Consequently, the college formulated a strategic vision and established state-of-the-art laboratories and equipment to facilitate product creation, design, to manufacturing on campus. This initiative enables students to engage with Cutting-Edge Technologies such as AI, Robotics, Machine Learning, Virtual Reality, Big Data, IoT, Block Chain, e-Mobility, PCB Manufacturing, and Battery Manufacturing Systems utilizing Lithium-Grade Sources to focus on Renewable Energy Solutions. Additionally, the college emphasise on research and development efforts in this area.

This ecosystem and infrastructure facilitate the establishment of the following startups:

1. First MSME Incubation Centre
2. First RTU Innovation & Incubation Centre

3. Arya Incubation Centre
4. AICTE IDEA Lab

The continuous introduction of state-of-the-art equipment, such as 3D Printers, Laser Cutting Machines, CNC Router and CNC Lathe Machines, Mechatronics Trainer, Vacuum Forming, SMT Machine, Plasma Cutting, and Laser Welding Machines, has significantly streamlined and enhanced the prototyping process for students. This comprehensive ecosystem ensures that students have access to the latest tools and facilities, enabling them to design to manufacture, fostering innovation and hands-on learning experiences.

ACE's persistent commitment to innovation and resource allocation has led to various recognition and accomplishments :

1. Recognized as **RTU Certified Center of Excellences** in AI-&-Robotics, e-Mobility, PCB-Manufacturing and Concrete-Technology
2. Deployed **Robocop** to the **Cyber Crime Cell, Delhi Police**.
3. **Established Robotic Labs** at RTU, R-CAT (GOR), and prestigious institutions like PIET, NIMS, Woxen University, St. Wilfred's College, Delhi Public School, Neerja Modi School among others.
4. Developed AI-based Robots tailored for use in Restaurants and Hospitals nationwide.
5. Our Startup "**Aloe e-Cell**" clinched the World Startup Championship for Renewable Energy in Barcelona, Spain.
6. First Position in the AICTE-sponsored SIH-2022 at MIT-Pune, for designing and manufacturing a **Digital Stethoscope**.
7. Donated 03 Bionic Hands to Hand Amputees in collaboration with **Jaipur Foot Foundation** and SBMVSS.
8. Invitation from Shark Tank to pitch our **Medical and Robotic Products**, a significant milestone for the college.
9. Our startup, Dekho Infotech, is registered as an **Original Equipment Manufacturer (OEM) at the GEM Portal** of the **Government of India**.
10. Designed and manufactured Medical Kiosks and Portable Medical Labs, registered at the **GEM Portal** and Certified as Medical 'C' Class Equipment, ready for production by **CDSCO**.
11. ACE has received Grant of Rs. 10.67 Lakh to host AICTE Sponsored SIH-2023 - Hardware Edition, where 30 teams from various parts of the country and 200 students stayed in the campus for 5 days.

The pursuit of Research, Development & Innovation is an ongoing endeavor that relies on the backing of diverse government organizations. Recognizing this, ACE has erected Cutting-Edge **R&D Centers, Entrepreneurship Development Cells, Incubation & Innovation Centers, IPR Cells, and Industrial-Grade Labs**. These initiatives equip ACE to stay abreast of evolving technology and cultivate professionals primed for the industry. In essence, ACE nurtures an ecosystem that not only fosters innovation, research, and entrepreneurship but also underscores its dedication to knowledge creation and societal advancement.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

3.2.2

Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years

Response: 15

3.2.2.1 **Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
5	6	2	2	0

File Description	Document
Upload supporting document	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

3.3 Research Publications and Awards

3.3.1

Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

Response: 2.06

3.3.1.1 **Number of research papers in the Journals notified on UGC CARE list year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
151	210	169	147	170

File Description	Document
Link to the uploaded papers, the first page/full paper(with author and affiliation details)on the institutional website	[View Document](#)
Link to re-directing to journal source-cite website in case of digital journals	[View Document](#)
Links to the papers published in journals listed in UGC CARE list or	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

3.3.2

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

Response: 6.15

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

2022-23	2021-22	2020-21	2019-20	2018-19
458	520	560	529	460

File Description	Document
List of chapter/book along with the links redirecting to the source website	[View Document](#)
Institutional data in the prescribed format	[View Document](#)
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

3.4 Extension Activities

3.4.1

Outcomes of Extension activities in the neighborhood community in terms of impact and

sensitizing the students to social issues for their holistic development during the last five years.

Response:

Extension Activities

ACE is deeply committed to fostering social well-being and addressing pressing social issues through community engagement activities. With a focus on the surrounding villages, the college endeavours to create a positive impact in the lives of local residents. These activities are meticulously designed to encourage active participation from students, enabling them to gain first-hand experience and understanding of various social issues. Recognizing the importance of sensitizing students to social realities, ACE has taken proactive steps to engage with nearby villages. Through initiatives aimed at raising awareness about pertinent social issues, students are empowered to contribute meaningfully to the betterment of the communities they serve. By fostering dialogue and collaboration, ACE seeks to instil a sense of responsibility and empathy among its student body. In alignment with national initiatives such as **Unnat Bharat Abhiyan, facilitated by IIT-Delhi (Receiving Grant of Rs. 50,000)** and the Ministry of Education, ACE has adopted the following 05 Villages:

1. Kacherawala
2. Rajpur Khanaya (Khanyawala)
3. Chak Kotiya
4. Khurad
5. Kankrel

This strategic partnership underscores the college's commitment to holistic community development and underscores its role as a catalyst for positive change in the region. Through sustained efforts and meaningful engagement with these villages, ACE aims to address a wide range of social issues, from education and healthcare to environmental conservation and women's empowerment. By fostering a culture of service and social responsibility, ACE endeavors to create a brighter, more equitable future for all members of the community.

The students of the college actively engage in a diverse array of initiatives aimed at fostering social welfare and community development:

Healthcare Initiatives:

1. Free Medical & Health Check-up Camp.
2. Vaccine and Mask Distribution Camp during COVID-19 Pandemic
3. Hair Donation to Cancer Patients

Environmental, Hygiene, and Sanitation Campaigns:

1. Tree Plantation Drives.
2. Cleanliness Campaign under Swachh Bharat Abhiyan

Social Awareness Programs:

1. Village Survey under Unnat Bharat Abhiyan

2. Voter Awareness Program
3. Girl Child Safety and Education Awareness Program under Beti Bachao, Beti Padhao Initiative

Educational Support Initiatives:

1. Study Material and Stationery Distribution Camp

Humanitarian Aid:

1. Food and Clothes Distribution Camp
2. Gau Seva by Donation of Cattle Fodder

The following practices exemplify the college's unwavering commitment to addressing social issues and fostering the holistic development of its students through sensitization initiatives.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

3.4.2

Awards and recognitions received for extension activities from government / government recognised bodies

Response:

Arya College of Engineering (ACE) is committed for conducting extension activities for the comprehensive development of students. In these regards, ACE organized activities related to **Women's Empowerment** and **Social Welfare Activities** like

- Health Check-up camps
- Blood Donation
- Yoga Day
- Vaccination Camp
- Aids Awareness Programs
- Rashtriya Balika Diwas
- Disease Awareness Programs
- Food & Cloth Distribution, etc.

These activities encompass a diverse range of programs, events, and initiatives designed to complement academic learning, fostering holistic development among students. Engaging in extension activities cultivates crucial life skills such as leadership, teamwork, and problem-solving.

ACE received various Appreciation Certificate from recognized bodies like

- Pancholi Sports & Fitness
- The Association of Engineers
- Shree Devbhumi Herboceutial Pvt. Ltd.
- Tilak Shikshan Samiti
- Akshaya Patra Foundation
- Hare Krishna Movement
- Manipal Hospital
- Rescue Laboratories, etc.

For promoting the IPR activities we have arranged and organized several Seminars, Guest lectures, Workshops, etc. On the behalf of these activities, we got some **funded projects** like the Medical Kit, E-Vehicle, Bionic Hand, a Digital Stethoscope, a Diagnostic Therapeutic Machine, a Portable Medical Device, and other Robotics & Medical Products for the welfare of society.

Medical Device, and other Robotics & Medical Products for the welfare of society.

- Dr. Arvind Agarwal, Awarded as a"Visionary Edupreneur of India" by Sri Pranab Mukherjee ,Ex-President of India on 11th , December, 2017 during " National Convention of Eduleader & Edupreneurs in Higher Education " for laying down an Extra Ordinary Emphasis on the Goal of including the Spirit of Entrepreneurship in the Students of his Colleges guiding them to be"
- Dr. Puja Agarwal have been Felicitated by Hon'ble Smt. Vasundhara Raje,Chief Minister,Rajasthan, for her Contribution in supporting various activities like Cow Protection, Mid-Day Meals & Promoting Vedic Culture. On the auspicious occasion of Gopasthami, the programme was held at Hingoniya Cattle Rehabilitation Centre, Hare Krishna Movement, Jaipurwhere Gopujan, Sankirtan and Annakut Mahaprasadi were done.
- An award was presented by Mr.Bill Clinton,Ex President, USA Dr. Arvind Agarwal received award.
- Best E-gov campus award was presented by Ms. Lisa Grand from United Nation Dr. Arvind Agarwal received the award.
- Arya College of Engineering is awarded with "Best Engineering College "Best Engineering College in Rajastahn-2023" by CEGR. The award was presented by Hon'ble Chairperson of NAAC Dr. Anil Sahasrabudhe Ji and AICTE Chairman, Dr. T.G.Sitharam Ji. ACE received the award for its outstanding and exemplary contribution towards education, skill development & research. Dr. Arvind Agarwal received the award.
- Dr. Puja Agarwal Mam was felicitated for her commendable work on educating girl child. The award distribution ceremony was done by Princess Diya Kumai, Kailash Ji Meghwal, Ameen Ji Pathan, Kazi Saheb, Arun Ji Chaturvedi, Kalu Lal Ji Gurjar, Madan Ji Rathore, "Beti Bachao, Sharsti Bachao"
- Dr. Arvind Agarwal and Dr. Puja Agarwal has been awarded by 'Sewa Ratan'.The award has been conferred by Rajasthan State Commission for Minorities for his for contribution in the field of Technical Education.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

3.4.3

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.

Response: 36

3.4.3.1 **Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
13	10	3	5	5

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	[View Document](#)
Institutional data in the prescribed format	[View Document](#)
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

3.5 Collaboration

3.5.1

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

Response: 37

File Description	Document
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc.	[View Document](#)
List of year wise activities and exchange should be provided	[View Document](#)
List and Copies of documents indicating the functional MoUs/linkage/collaborations activity-wise and year-wise	[View Document](#)
Institutional data in the prescribed format	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1

The Institution has adequate infrastructure and other facilities for,

- **teaching – learning, viz., classrooms, laboratories, computing equipment etc**
- **ICT – enabled facilities such as smart class, LMS etc.**

Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)

Response:

Arya College of Engineering (ACE) is a Modern Campus for Innovative Teaching & Learning, spread over in 05 acres of lush green land of RIICO Industrial Area, Kukas, Jaipur, ACE stands as a beacon of modern education infrastructure. Since its inception, ACE has strived to integrate contemporary construction practices, aiming to provide students with a conducive learning environment aligned with AICTE norms.

Lecture Theaters:

ACE has 45 well-equipped lecture theaters, including 38 that are ICT-enabled. These theaters are designed to deliver immersive audio-visual learning experiences, fostering interactive teaching methodologies and student engagement.

Hi-Tech Laboratories:

Complementing theoretical knowledge with practical skills, ACE houses 67 state-of-the-art laboratories equipped with modern equipment and facilities. These labs cater to the diverse needs of students and facilitate hands-on learning experiences aligned with the RTU curriculum.

Entrepreneurship and Innovation Center:

Recognizing the importance of fostering an entrepreneurial spirit, ACE offers dedicated facilities such as the MSME Incubation Center, RTU Innovation & Incubation Center, and AICTE IDEA Lab. These resources empower students to explore innovative ideas, develop prototypes, and kickstart their entrepreneurial ventures.

TV Studio:

State-of-the-Art TV Studio Equipped with AC, Interactive Board, Light Board, and PC for Editing, Arya College's TV Studio produces high-quality Educational Content for the Arya Notes Portal and Arya YouTube Channel, enhancing students' learning experiences.

Modern Seminar Hall and Auditorium:

ACE has 06 Seminar Halls and 01 Multi-Purpose Auditorium with seating capacity of 400+ students are equipped with LCD/LED, Interactive Smart Boards, and Modern Audio-Visual Aids, providing ideal spaces for conducting events, workshops, seminars, and conferences.

Comprehensive Library and Research Hub:

At the heart of ACE lies its library, spanning 800 sqm and housing an extensive collection of 30,000 books, magazines, and newspapers. Automated by ERP – Koha and also has the in-house Book Search Engine (i-Search), and equipped with 30 computers for online access of e-Library resources.

Cutting-edge Computer Labs:

With 20 computer labs equipped with 900+ computers and laptops with latest configurations, ACE provides students with access to online learning tools and resources. These labs facilitate research, project work, and hands-on training.

Faculty Development and Research Facilities:

ACE prioritizes faculty development and research, providing modern facilities such as faculty and staff cabins, Computers, Laptops with High Speed Internet, Departmental Libraries, and audio-visual aids. These resources empower faculty members to conduct research, utilize ERP tools efficiently, and enhance academic excellence.

Holistic Development:

To foster holistic development, ACE offers facilities such as the Maa Saraswati Temple.

Sports & Recreational Facilities

Outdoor Sports Facilities like Basketball, Volleyball, Tennis, & Badminton Courts, Football & Cricket Grounds

Indoor game facilities for Table Tennis, Chess, Carom etc.

GYM & Yoga Centre:

Modern Gym and Yoga and Meditation Center is available in the campus

Medical Center: A dedicated Medical Center with 24-hour ambulance services for emergency healthcare needs.

Advanced IT Infrastructure and Network Security:

Maintaining a robust IT infrastructure with 04 Dedicated Servers, UTM Machine & Firewalls, with Optical Fiber Cable, CISCO Routers and Switches with Media Converters and Netgear Access Points ensures seamless network connectivity.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

4.1.2

Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years

Response: 31.21

4.1.2.1 **Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)**

2022-23	2021-22	2020-21	2019-20	2018-19
184.19	183.99	173.55	183.34	231.95

File Description	Document
Institutional data in the prescribed format	[View Document](#)
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

4.2 Library as a Learning Resource

4.2.1

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

Response:

Arya College of Engineering (ACE) has a state-of-the-art, air-conditioned Central Library spanning 8000 sq. ft., **fully automated since 2010**. The details are as under:

The college's central library is a treasure trove of knowledge, boasting an extensive collection that includes:

1. **Books:** With a total of 30,000 books, students have access to a wide range of subjects and topics to support their academic endeavors.
2. **Titles**: Offering over 5000 titles, the library ensures that students have access to diverse resources for their research and studies.
3. **Reference Books:** A collection of 5000+ reference books provides additional support for in-depth understanding and exploration of various subjects.
4. **Periodicals:** The library subscribes to 81 periodicals, keeping students updated on the latest developments and research in their fields of interest.
5. **Journals**: With 58 international and Indian journals available, students have access to scholarly articles and research publications.
6. **Magazines**: 23 magazines add a touch of variety to the reading options available to students, catering to different interests and preferences.
7. **E-Journal Package**: The library offers access to the IESTC E-Journal package, enhancing the digital resources available to students.
8. Online Databases: Access to DELNET online databases further enriches the library's offerings, providing students with additional sources for their research.
9. **CDs and Video DVDs:** A collection of 970 CDs and 225 video DVDs adds multimedia resources to the library's inventory, offering alternative learning formats.
10. **Data Digitalization**: The library has embraced digitalization, making its resources easily accessible in digital formats for enhanced convenience.
11. **Newspapers**: Subscriptions to 27 newspapers ensure that students stay informed about current events and developments locally, nationally, and globally.

Additionally, the College has **05 Departmental Libraries with over 500+ Titles and 2000+ Volumes**.

The Automation of Library is facilitated by **KOHA Library Management Software**, enhancing the existing system and using the previous Web **Online Public Access Catalogue (OPAC)** through the intranet, containing over 80,000 bibliographic records for efficient searching. College also provide self developed search engine for finding Books position at Library named "**i-Search**".

By Barcode Scanning of Books and Faculty/Student's I-Card, Book can be issued.

The library offers a wide range of online resources and database services, including **JGATE, DELNET CONSORTIUM, IEEE Papers, and NPTEL E-Learning Courses**, among others. There are **30+ Computers with a dedicated 50 Mbps Internet Facility** for students to access e-Library Resources at any time.

Furthermore, handbooks, theses, dissertations, and dictionaries are available for reference purposes. The College encourages continuous learning and provides additional resources for the preparation of competitive exams and higher studies, including **IELTS, GRE / GMAT/GATE/CAT/UPSC** etc.

To keep students updated with the latest news and trends, the library offers **80+ newsletters** featuring

articles from renowned publications such as The Economic Times, The Economist, and The Hindu, among others.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

4.3 IT Infrastructure

4.3.1

Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

Response:

ACE prioritizes cutting-edge technology to enrich the learning experience of its students and streamline administrative processes. Here's a detailed overview of ACE's technological infrastructure:

500 Mbps Dedicated Lease Line for High-Speed Internet-Connectivity:

Ensuring rapid internet access is crucial for modern education. ACE delivers this with a dedicated lease line, providing students and faculty members with lightning-fast connectivity for their academic and research needs.

Hi-Tech Server-Room with 04 Dedicated-Servers:

ACE's server room is the backbone of its digital infrastructure. Equipped with four dedicated servers, it manages critical functions such as hosting, network printing, bandwidth management, database operations, firewall protection, and security measures. Supported by CISCO routers, switches, and media converters, ACE's server infrastructure guarantees stability, reliability, and security.

Air Cooled 38 ICT Enabled Modern Lecture Theatres (Step-up Type):

Lecture halls play a vital role in the learning process. ACE ensures a conducive environment for learning by providing 38 modern lecture theatres. These air-cooled spaces are equipped with ICT features, facilitating interactive and engaging sessions for students.

20+ Modern Computer-Labs with 1000+ Latest-Configuration Computers:

Practical learning is essential in engineering education. ACE offers over 20 computer labs equipped with

1000+ state-of-the-art computers. These labs provide students with hands-on experience and access to cutting-edge software and tools essential for their academic and research endeavors.

CISCO_Routers, Switches, and Media Converter for Stable & Reliable Networking:

To ensure seamless networking, ACE relies on CISCO routers, switches, and media converters. These components form the backbone of the college's networking infrastructure, providing stable and reliable connectivity for students, faculty, and staff.

Networking through Optical Fiber Cable and RJ-45 Cable:

ACE's networking infrastructure is built on optical fiber and RJ-45 cables, ensuring robust connectivity across the campus. Additionally, the college has deployed over 50 Netgear access points to guarantee flawless Wi-Fi connectivity, allowing students to stay connected from anywhere on campus.

Surveillance through 150+ High Definition CCTV Cameras and 50+ DVR:

Safety and security are paramount at ACE. The college maintains a comprehensive surveillance system comprising over 150 high-definition CCTV cameras and 50+ DVRs strategically placed across the campus to monitor activities and ensure a safe environment for all.

06 Air-Conditioned Seminar Halls with LCD and Interactive Boards:

Seminar halls provide platforms for discussions and presentations. ACE offers six air-conditioned seminar halls equipped with LCD screens and interactive boards, enhancing the quality of presentations and discussions.

Dedicated Team of 10 Highly Trained IT Professionals:

Behind ACE's technological infrastructure is a dedicated team of 10 highly trained IT professionals. They ensure the smooth operation of systems and provide technical support to students and faculty, ensuring uninterrupted access to digital resources.

Audio-Visual Equipment, Centralized Printing Facilities and Scanner and Printer Access:

ACE enriches the learning environment with 30+ LCD projectors, audio-visual aids, centralized network printers, scanners, and printers placed conveniently across the campus, supporting students' academic and administrative needs.

In conclusion, ACE's investment in cutting-edge technology underscores its commitment to providing students with a conducive learning environment equipped with the tools and resources necessary for academic excellence and professional growth.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

4.3.2

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

Response: 1.76

4.3.2.1 **Number of computers available for students usage during the latest completed academic year:**

Response: 890

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	[View Document](#)
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

4.4 Maintenance of Campus Infrastructure

4.4.1

Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)

Response: 12.76

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

2022-23	2021-22	2020-21	2019-20	2018-19
80.65	33.48	40.72	105.44	130.85

File Description	Document
Institutional data in the prescribed format	[View Document](#)
Audited income and expenditure statement of the institution to be signed by CA for and counter signed by the competent authority (relevant expenditure claimed for maintenance of infrastructure should be clearly highlighted)	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1

Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 70.53

5.1.1.1 **Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
1495	1031	1036	981	824

File Description	Document
Year-wise list of beneficiary students in each scheme duly signed by the competent authority.	[View Document](#)
Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).	[View Document](#)
Upload policy document of the HEI for award of scholarship and freeships.	[View Document](#)
Institutional data in the prescribed format	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

5.1.2

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. *ICT/computing skills*

Response: B. 3 of the above

File Description	Document
Report with photographs on Programmes /activities conducted to enhance soft skills, Language and communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	[View Document](#)
Report with photographs on ICT/computing skills enhancement programs	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

5.1.3

Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

Response: 77.19

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

2022-23	2021-22	2020-21	2019-20	2018-19
1761	1766	808	785	754

File Description	Document
Upload supporting document	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

5.1.4

The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases

1. **Implementation of guidelines of statutory/regulatory bodies**
2. **Organisation wide awareness and undertakings on policies with zero tolerance**
3. **Mechanisms for submission of online/offline students' grievances**
4. **Timely redressal of the grievances through appropriate committees**

Response: A. All of the above

File Description	Document
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	[View Document](#)
Proof related to Mechanisms for submission of online/offline students' grievances	[View Document](#)
Proof for Implementation of guidelines of statutory/regulatory bodies	[View Document](#)
Details of statutory/regulatory Committees (to be notified in institutional website also)	[View Document](#)
Annual report of the committee motioning the activities and number of grievances redressed to prove timely redressal of the grievances	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

5.2 Student Progression

5.2.1

Percentage of placement of outgoing students and students progressing to higher education during the last five years

Response: 77.63

5.2.1.1 **Number of outgoing students placed and / or progressed to higher education year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
238	292	288	295	348

5.2.1.2 **Number of outgoing students year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
311	325	368	432	446

File Description	Document
Number and List of students placed along with placement details such as name of the company, compensation, etc and links to Placement order(the above list should be available on institutional website)	[View Document](#)
List of students progressing for Higher Education, with details of program and institution that they are/have enrolled along with links to proof of continuation in higher education.(the above list should be available on institutional website)	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

5.2.2

Percentage of students qualifying in state/national/ international level examinations during the last five years

Response: 27.08

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

2022-23	2021-22	2020-21	2019-20	2018-19
33	10	13	19	39

File Description	Document
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

5.3 Student Participation and Activities

5.3.1

Number of awards/medals for outstanding performance in sports/ cultural activities at University / state/ national / international level (award for a team event should be counted as one) during the last five years

Response: 25

5.3.1.1 *Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years*

2022-23	2021-22	2020-21	2019-20	2018-19
8	2	3	4	8

File Description	Document
list and links to e-copies of award letters and certificates	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

5.3.2

Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)

Response: 34.6

5.3.2.1 **Number of sports and cultural programs in which students of the Institution participated year wise during last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
43	30	9	36	55

File Description	Document
Upload supporting document	[View Document](#)
Institutional data in the prescribed format	[View Document](#)

5.4 Alumni Engagement

5.4.1

There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

Response:

ACE Alumni-Network is one of the Best **Professional_Networking_Platform** of our Institution as they are the ambassador of the college working in various MNCs/Organisations Worldwide. If any Institute tap the potential of **Alumni_Network_of_15000+_alumni**, can create a wonderful_ecosystem where the students of college can engage.

Over 18_years of journey, ACE has established an Alumni_Network because college understands that further growth of institute relies on its alumni. They are always considered as **fifth pillar**, entrusted with carrying its significant work forward and assisting current students in securing-jobs, receiving career-guidance, and finding motivation to become entrepreneurs and positively contribute to institution.

The **Registered_Alumni_Association** plays a crucial role in contributing to college's development through **financial support and valuable services** such as career guidance. The **Arya Alumni Association** is registered with the Registrar of Societies in Jaipur under **Registration No. RJ/970/Jaipur/2011-12.** Additionally, it is recognized as a Charitable Institution by the Commissioner of Income Tax under section 12A of the Income Tax Act, 1961, and has obtained approval for exemption under section 80G of the Income Tax Act.

Main purpose of registered Alumni Society was with following objectives:

1. To effectively employ the talents positions and direct/indirect contribution of alumni to construct an ecosystem for students and for betterment of society.
2. To continuously increase engagement with Alumni, so that their commitment, interest & royalty remains with college.
3. Many of our Alumni are on top positions of MNCs/Organisations. College invite them to motivate current students and provide them the opportunity for training/placement/paid-internship in their organizations.
4. The Alumni Network provides current students with information about available opportunities for higher-studies in National/International Institutions Worldwide.
5. Alumni are invited to college events, felicitated. Alumni parties are organized in various locations across India to strengthen bonding and networks.
6. College has established an **Alumni Portal (alumni.aryacollege.org)** to serve as a bridge for on-going engagement between alumni and the college community. It provides updates on college-events, achievements, functions, along with job notifications for alumni seeking career advancement opportunities based on their experience.
7. It builds connections among classmates and batchmates, enabling them to reminisce about their college memories by sharing photographs/videos. College consistently uploads photos/videos of various functions, nurturing a sense of nostalgia and community among alumni.

Outcome of Alumni Association

Alumni Association contribute significantly to the development of the institute in various forms as:

1. **Training:** College actively engages alumni for on-campus and online training sessions, including mock interviews, and informs them about placement requirements from various organizations.
2. **Placements:** College's alumni network provides invaluable support to current students by offering guidance,motivational talks,insights into the requirements of companies. They visit campus to deliver technical/current affairs talks, sharing their life experiences to help students navigate future opportunities/challenges.

3. **Higher-Studies:** Many alumni pursue higher studies and settle abroad, particularly in the USA/UK/Australia. They offer valuable insights on admission-processes, cost-effective-measures, thriving during higher studies in different countries.

Alumni_Contribution:

Alumni are keen to contribute significantly to the college's Alumni-Funds. With total contribution of 5+ lakhs, College maintains a separate account for these funds and conducts numerous activities for the benefit of alumni.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

Response:

The College's focus and core ideology is reflected in its Vision, Mission, and Governance structure.

Vision:

To emerge as the best educational institute and Work for Excellence in imparting quality education to the students to nurture their inherent talent as Innovative Professional in technical and managerial field there by making them competitive to meet all the future challenge of global economy.

Mission:

- To create a Progressive Academic Environment by nurturing the Creativity, Ideas, Innovation and Skills in Students.
- To provide Excellent Academic Ambience for Teaching-Learning processes and to conduct FDP, Workshop, Seminars etc. To inculcate Ethics, Human Values, Integrity, Character Building among the students and other stakeholders for the development of the society and nation.
- To make Students Globally Competitive by providing suitable Training, Value Added Certification Courses and Beyond Syllabus Academics

Decentralized Management

The college's well-designed organogram illustrates the roles, responsibilities, and active participation of key members in achieving results in a decentralized, transparent, and responsible manner.

1. **The Management** is overseen by the Board of Governors (BOG), whose members are appointed according to guidelines.
2. **The Dean** holds a crucial position within the BOG, overseeing all Academic, Administrative, Financial, Approval, Affiliation, and Accreditation-related matters.
3. **The Principal** serves as the Academic Head, responsible for overseeing all academic, library, and financial affairs, with financial independence.
4. **The Director** is responsible for overseeing all Institutional Committees and the Training & Placement (T&P) Cell. Proactively seeking ways to enhance student affairs, the Director also maintains corporate relations with external entities on behalf of various departments.
5. **The Registrar** oversees examination and administrative activities within the institution.
6. **The IQAC** plays a pivotal role within the organization, by maintaining continuous interaction with the Chairman, Dean, Principal, Director, and Registrar. It is responsible for overseeing exam

conduct, documenting key achievements of the college, and conducting data and survey analysis to achieve the perspective plans of the BOG.

Participative Management

1. **At the Strategic Level**, collaboration among the Director, Principal, Registrar, and IQAC Coordinator is pivotal in framing policies, procedures, rules, and regulations. Together, they establish Key Performance Indicators (KPIs) for the semester to enhance academics, the teaching-learning process, achievements, and financial resource mobilization, providing recommendations to the BOG.
2. **At the Functional Level**, the Principal, Director, and Heads of Departments (HODs) ensure effective curriculum planning and delivery and also actively participate in various academic and student enrichment programs.
3. **At the Operational Level**, the BOG functions as the highest decision-making body, offering recommendations for the introduction of new academic programs and welfare activities based on feedback from strategic level participants.

Strategic & Perspective Plan:

Since the establishment of the IQAC Cell in 2012, the Institute has formulated forward-thinking strategic plans, aligning them with the institution's vision and mission. Clear timeframes have been set to achieve these goals, with a strategy focused on following SMART Goals: Specific, Measurable, Achievable, Realistic, and Timely.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

6.2 Strategy Development and Deployment

6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

Response:

The Institutional-Strategic/Prospective-Plan is Effectively Deployed

The Strategic-Plan for the Institution and Progressive-Deployment of the Resources and Achievement of the Strategic-Goals were decided in 2012 with the formation of the IQAC-Cell.

01.   To apply for NBA-Accreditation as per the Washington-Accord and AICTE mandate.

Status : In 2012, CSE & ECE Branches received NBA-Accreditation, marking the college as India's youngest to achieve this feat in just 07-years.

02.   To get NBA-Accreditation in remaining Branches.

Status : In 2013, ACE successfully got Accreditation in EE and IT branches and became the First-College-of-Rajasthan to have for 04-Accredited branches.

03.   Strategic-Plan to Establish Industry-Oriented-Laboratory.

Status : In 2012, ACE secured a Grant from AICTE to establish MODROB and created the Wipro-Mission-10x-Technology-Learning-Center, enriching students' Employability-skills.

04. Strategic-Deployment to Increase in Institutional-Industry Tie-ups.

Status : In past 05-years, ACE has forged partnerships with over 70 prestigious organizations, including Infosys, TCS, IIT-Bombay, AICTE, DoIT, and RTU.

05.   Continuous improvement in Teaching-Learning-Processes.

Status : Conducted various FDPs, Workshops & Conferences.

06.   Align with Government-of-India Initiatives to promote Innovation and Startup Activities.

Status : Inspired by initiatives like Startup-India and Digital-India, ACE has established Innovative-Labs to foster startups. It has launched the First MSME-Incubation-Centre, First-RTU-Innovation-&-Incubation-Centre, and Arya-Incubation-Centre, encouraging students to engage with Emerging-Technologies and Cultivate an Innovative Startup Culture.

07.   To get aligned with Emerging-Technology.

Status : ACE has established 04 RTU-Certified-COEs in Robotics, PCB-Manufacturing, e-Mobility, and Concrete-Technology.

08.   To participate in various Government-Startup-Competition.

Status : The institute strategically assembled teams of faculties and students to compete in prestigious Innovation and Startup Competitions, emerging victorious in many, including the World-Startup-Championship in Barcelona-Spain, and the SIH-2022 at MIT-Pune.

09. Take the Advancement of RTU-TEQIP-Schemes.

Status : The institute actively participated in numerous FDP under TEQIP, receiving significant support from RTU. Notably, it secured funding of
Rs.15.00 Lakh to organize Startup & Innovation Competition, winning the First-Prize and Rs.4.50 Lakh for an IoT-based-Agriculture-Project. Additionally, it clinched the First-Prize in an RTU-sponsored Startup Innovation Competition for Medical-Device.

10.   Align with New-Education-Policy of the Government.

Status : In 2018-19, the institute pursued NAAC-Accreditation, becoming RTU's First-College to achieve a B++Grade with a score of 2.9, narrowly missing an A-Grade by 0.05 points.

11.   Transition during COVID-Pandemic

Status : The institute implemented digitalization by offering Online-Classes and creating the Portal www.aryanotes.com, providing comprehensive Study-Materials.

12.   The Strategic-Plan to achieve Autonomy.

Status : Institution started working.

13.   Getting more Grants and Funds from various Government-Organizations like AICTE,DST,DoIT,RTU etc.

Status : To increase participation in Paper-Publications, Patent-Filing, R&D, FDPs, Digitalisation through e-Governance, Setting-up of Startup Companies, Research in Multi-disciplinary Fields like Medical and Agriculture.

14.   To obtain 2f and 12B recognition from UGC.

Status : The Institute is in progression of getting autonomy.

15.   Reaccreditation by NBA

Status : In 2022, CSE-Branch.

16.   To secure a spot among India's Top-100-Institutions.

Status : The college consistently features in NIRF and is streamlining processes to achieve this in the future. 38 RTU-Merits in past 03_Years including 09 Gold Medalist and 1st Rankers.

17.   To promote Environmental-Conservation and Mitigate-Climate-Change.

Status : The college's sustainability initiatives feature a 450kW Solar-Plant, 15-kW Wind-Plant, Rainwater-Harvesting-System, STP-&-Biogas-Plants, and Lush-Green-Campus with over 500-Plants, aimed at reducing carbon-emissions.

18.   To get a better organisation.

Status : In 2023, AIET changed its name Arya-Institute-of-Engineering-&-Technology to Arya-College-of-Engineering, complying with AICTE regulations. Since 2023, it's known as Arya-College-of-Engineering, (AISHE C-25108).

File Description	Document
Upload Additional information	[View Document](#)
Institutional perspective Plan and deployment documents on the website	[View Document](#)
Provide Link for Additional information	[View Document](#)

6.2.2

Institution implements e-governance in its operations

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

Response: B. 3 of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	[View Document](#)
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	[View Document](#)
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

6.3 Faculty Empowerment Strategies

6.3.1

The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

Response:

Staff Welfare Measures

The college has well-defined and effective welfare measures for the Teaching and Non-Teaching Staff to support their career advancement and overall well-being.

1. **Group Insurance Policy:** All the staff members benefit from our comprehensive Group Insurance Policy, safeguarding them against the risk of Accidental Death.
2. **ESI & PF:** Our institution strictly adheres to Central Government Rules & Regulations regarding ESI and PF.
3. **Free Educational Support:** We extend the privilege of Free Education to staff members and their children, ensuring access to quality education.
4. **Free Residential Facility:** To accommodate staff from outside Jaipur, ACE offer complimentary Staff Quarters.
5. **Interest Free Loan Facility:** Recognizing staff members' emergency needs, college provide Interest-Free Loan Facilities tailored to their requirements.
6. **Leaves:** Our staff members are entitled to various leave, including Casual Leave, Earned Leave, Academic Leave, Study Leave, Out for Duty Leave, Sick Leave, Marriage Leave, Maternity Leave, Bereavement Leave, Vacations, and Breaks.
7. **Performance Appraisal Policy:** ACE has a structured Performance Appraisal System in place for both Teaching and Non-Teaching Staff, facilitating career advancement opportunities.
8. **Financial Support and Incentive Policy:** Incentivizing faculty members' achievements, ACE offer rewards for Publishing Research Papers, Books, Patents, attending National/International Conferences & Workshops, and covering Membership Fees of Professional Bodies.
9. **Sponsorship for Higher Studies:** ACE encourages and sponsors faculty members for higher education pursuits through a comprehensive policy.
10. **Staff Development Programs:** Keeping staff updated with emerging technologies, ACE regularly organize FDP, STC, SDP, and Workshops.
11. **Allowances:** ACE offers a comprehensive allowance policy to facilitate staff members' reimbursement of TA and DA during duty assignments. Additionally, ACE covers conveyance and mobile expenses for the convenience of its staff members.
12. **Free Transport Facility:** All staff members facilitated with complimentary Transport Facilities via college buses and cabs.
13. **Gifts and Bonus:** As a gesture of appreciation, ACE presents gifts and bonuses to all staff during festive occasions.
14. **Birthday Celebration:** To make the staff feel valued and appreciated, the college celebrates the birthdays of all staff members and presents them with birthday gifts as a token of appreciation.

Appraisal Policy

The College has a well-defined Annual Performance System for both Teaching and Non-Teaching Staff. At the end of each academic year, staff members are invited to complete a Self-Appraisal Form. These forms undergo review by the respective HODs, followed by consolidation and further evaluation by the Principal. Subsequently, the Principal presents the appraisals before the Board of Governors (BOG) for finalization and approval.

Evaluation Base for Teaching Staff

1. Academic Performance
2. Research & Publications
3. Certification & Achievements
4. Departmental Responsibilities
5. Participation in Administrative Work

Evaluation Base for Non-Teaching Staff

1. Achievement of Targets
2. Productivity and Efficiency
3. Contribution in Admission Process
4. Involvement in Other Work

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

6.3.2

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

Response: 58.42

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**

2022-23	2021-22	2020-21	2019-20	2018-19
89	73	85	78	88

File Description	Document
Policy document on providing financial support to teachers	[View Document](#)
Institutional data in the prescribed format	[View Document](#)
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	[View Document](#)
Audited statement of account highlighting the financial support to teachers to attend conferences / workshop s and towards membership fee for professional bodies	[View Document](#)

6.3.3

Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

Response: 60

6.3.3.1 **Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP),** *Management Development Programmes (MDPs)* **professional development /administrative training programs during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
108	85	84	87	86

6.3.3.2 **Number of non-teaching staff year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
14	11	6	6	6

File Description	Document
Refresher course/Faculty Orientation or other programmes as per UGC/AICTE stipulated periods, as participated by teachers year-wise.	[View Document](#)
Institutional data in the prescribed format	[View Document](#)
Copy of the certificates of the program attended by teachers.	[View Document](#)
Annual reports highlighting the programmes undertaken by the teachers	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

6.4 Financial Management and Resource Mobilization

6.4.1

Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/ nongovernment organizations) and it conducts financial audits regularly (internal and external)

Response:

Institutional Strategies for Mobilization of Funds

Arya College of Engineering is a Self Finance Institution, hence Fee from Students Tuition is the Main Source of Fund, other source of funds are as under :

1. Development Fees
2. Hostel Fee
3. Interest Earned on Corpus Funds
4. Funds & Grants
5. Alumni Contribution.

The revenues are used for Staff Salaries, Maintenance Projects, Development of Infrastructure for the Teaching-Learning-Process, Purchase of Computers, Lab Equipment, Furniture, Library Resources, and day to day expenses etc. A carefully considered budget is created to cover the Institute's Development Initiatives. All Departments carefully plan their budgets, outlining costs in several categories and providing thorough explanations for each. The respective HOD work closely with Faculty Members and Laboratory In-charges to prepare Departmental Budgets. These budgets are then discussed with the Principal and Director before being submitted to Management for Final Approval. After Approval, the allotted amount is distributed among several categories of expenses in line with the recommendations of Statutory Committees.

Optimal Utilization of Resources

The **Optimum** use of funding is being carefully applied to a variety of projects that are meant to improve the educational environment and institutional framework. To maintain the standards of high-quality education, sufficient funding is allotted for programmes including **Faculty-Development, Conferences, Workshops, Seminars, and Orientation-Sessions**. **Funds** from the Government and Business Sector is used for **Lab Improvements** and to plan academic programmes in accordance with sponsorship approvals like **Robotics, Artificial-Intelligence and e-Mobility** projects. Amounts are also set aside for **Contingencies, Academic and Infrastructural Development, Library Improvements, Infrastructure Upkeep, Daily Operations and Administrative Costs, and Social Service** etc. This careful approach to resource management demonstrates the institute's dedication to raising teaching standards to a high level and supporting the overall development of students.

The primary goal of making the best use of available resources is to position ACE as a leader in student progress and high-quality instruction.

Internal and External Financial Audits

The Institutional Internal and External Audits are undertaken annually during the months of March and April. The institute has maintained an Accounts Department, which is led by a dedicated Accounts Officer. The primary responsibility of this department is to oversee the maintenance of annual accounts and conduct audits.

(A) Internal Audit

The institute employs an Internal Auditor to undertake its own Internal Audit System. This is a perpetual and uninterrupted process aimed at monitoring the complete inflow and outflow of funds within the institute. Internally, regular evaluations are conducted on the cash flows to prevent unnecessary spending on activities that do not enhance the current system and to strengthen it for the benefit of students and staff.

(B) External Audit

The Institute's Chartered Accountant performs regular audits of the accounts and certifies the Annual Financial Statements. The Account Officer also countersigns all Utilization Certificates submitted to grant providing agencies. The Chartered-Accountant (CA) has verified the Financial Statements up to the FY-2022-23.

File Description	Document
Upload Additional information	[View Document](#)
Provide 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. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

Response:

ACE established IQAC-Cell in 2012 to contribute significantly to institutionalizing quality_assurance and strategic_processes for achievement of long-term **SMART (Specific_Measurable_Achievable_ Realistic_Timely)** Goals.

With the institute's clear Vision and Mission, and different bodies including BOG and IQAC, aim is to establish transparency, meaningful achievements, and decentralization for the betterment of all stakeholders.

Emerging as the most important cell IQAC implements strategic-planning, maintaining records of various activities, analyzing outcome-based learning, and working for the betterment of students through various activities.

IQAC bears significant responsibility in establishing a system for planning, guiding, and monitoring Quality_Assurance(QA) and Quality_Enhancement (QE) activities throughout the institute. This includes aligning with NAAC_Accreditation criteria and bridging any gaps to achieve institution's strategic goals.

Roles & Responsibility of IQAC

- Development and maintenance of quality_assurance measures, including updating Quality_Assurance processes for academics and institutional activities.
- Conducting regular academic and administrative audits and preparing reports for BOG.
- Obtaining AICTE-Approvals, RTU-Affiliations, QIV-Rankings, NIRF, AISHE and Participation in Surveys, and submitting reports to agencies.
- Submitting reports and forms from government-agencies.
- Introducing courses in emerging areas like AI&DS,Cybersecurity.
- Monitoring and recording all infrastructure enhancements, ICT-advancements, placements, trainings, extracurricular activities, and beyond course certifications. Align with the Director and Principal for effective implementation.
- Acting as nodal agency for documentation, data monitoring, analysis, and quality-related activities.
- Preparing and submitting reports for discussion with Dean and BOG, including the Annual_Quality_Assurance Report, NAAC_Accreditation Documentation and closely monitoring quality parameters and its enhancements.
- Seeking feedback for improvements & developing new stretegies

Strategies Deployment

1. Establishment of IQAC-Cell, equipped with resources and best faculties capable of carrying out the vision, mission and strategies. This ensures development of collaborative work culture between higher authorities, faculties and administrators, facilitating seamless operations.
2. Continuously engaging in trainings and utilizing resources to ensure timely, efficient, and progressive performance in academic, administrative and financial areas.
3. Regular IQAC meetings are held to streamline operations, assess and strategize quality improvement initiatives across areas including academics, R&D, FDP, ICT_Integration, Research_Publications, Patent_Filing, and Collaboration with committees. Efforts are directed towards establishing Incubation_Centers and Centers_of_Excellence for training of students. Enhancing institutional-industry ties through MoUs remains a priority. Evaluation of outcomes occurs periodically throughout the semester.
4. IQAC_Cell's primary responsibility is to allocate resources for continuous student_improvement, report to higher_authorities for ongoing enhancements, and ensure outcome-based-education. They identify opportunities and oversees implementation for enhanced educational experience.
5. Mapping and posting everything on website for better incremental graph of Cos_and_POs.

Outcomes:

1. IQAC has achieved SMART goals setting done in_2012, including NBA_Accreditation in CSE & ECE in_2012 and in IT & EE branch in 2013.NBA_CSE_Reaccredition_in_2022.
2. NAAC_Accreditation in 2019 with B++.
3. Continuous increase in numbers of research_Publications, patent-filing & Government-grants year-by-year.
4. In teaching_methodology and learning_process Mentor_Mentee System helps in increasing Academic_Result.Out of 38_RTU-Merits in past 3-years, 9_students secured first rank in different branches showcasing our academic_excellence. Continuous efforts resulted in green campus, saving 100_tons of CO2 emissions and 500+ plants. 3_Crore_Litres per year water is

saved through STP.
5. A-Grade in QIV_Ranking
6. Students winning competitions in TEQIP/Startup/Innovation Programs like AICTE_Hackathon, RTU_Ideathone etc. 1st prize in renewable-energy in World_Statup_Championship in Spain, AICTE_SIH.

File Description	Document
Upload Additional information	[View Document](#)
Provide Link for Additional information	[View Document](#)

6.5.2

Quality assurance initiatives of the institution include:

1. **Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented**
2. **Academic and Administrative Audit (AAA) and follow-up action taken**
3. **Collaborative quality initiatives with other institution(s)**
4. **Participation in NIRF and other recognized rankings**
5. **Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.**

Response: A. Any 4 or more of the above

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period.	[View Document](#)
NIRF report, AAA report and details on follow up actions	[View Document](#)
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date.	[View Document](#)
Link to Minute of IQAC meetings, hosted on HEI website	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

Response:

Arya College of Engineering has well-defined Gender Audit Measures to promote Gender Equity and Equality with in campus and beyond.

Gender Audit, to assess the institutionalization of Gender Equality with-in organisations, including policies, programs, project and service provisions to ensure equality.

ACE has implemented Gender Equity Policies and Programs to promoting and sustaining equality among genders, especially for underprivileged.

Practices are Deployed for Gender-Equity :

1. Sensitization across all academic, administrative, and service-related activities, including placement opportunities and extracurricular activities, is crucial for promoting gender equity.
2. Sensitizing to create an inclusive environment that serves to the society to address any gender disparities.
3. Gender Equity Awareness Campaigns run from admission throughout the Academic-Years, promoting fairness and impartiality in opportunities, treatment, and resource sharing regardless of gender identity. Ongoing initiatives foster awareness, respectful interaction, and equal treatment among students, faculty, and staff through various programs. Support services like counselling and mentorship ensure inclusivity and equity.

Gender Sensitization and Facilities for Women on Campus

1. **Special Lectures and Functions:** Regular Special-Lectures and events are organized to raise awareness and sensitize students on gender-related issues.
2. **Sanitary Facilities:** Sanitary-Napkin-Incinerators and Vending-Machines are installed to ensure the health and hygiene of female students is maintained.
3. **Women Cell Interaction:** The Women's-Cell engages students to address gender-related issues and personal distress, fostering awareness and sensitization.
4. **Common Room Facility:** Dedicated Common-Rooms for Girls, providing a comfortable and inclusive space.
5. **International Women's Day Celebration:** Annual-Celebration of International-Women's-Day, addressing gender laws, inclusiveness, and felicitating women achievers. On this day, Women are felicitated for their contributed for society.

6. **Hi-Tech Surveillance System:** e-Surveillance with High-Resolution Cameras for day and night vision, monitoring the entry of unwanted elements and ensuring the safety of female staff and students.

7. **Hostel Facilities:** 05 Hostels for Boys and Girls, with constant monitoring and vigilant security measures.

8. **Security Personnel:** Deployment of Security-Personnel throughout the campus, creating a secure environment.

9. **Medical Facilities:** A Medical-Centre with Qualified-Staff, Emergency Medicine, and 24x7 Ambulance-Services available. Specialists may be called to visit the campus as needed.

10. **Counseling and Mentoring:** System of mentoring in each department, including the Women-Cell, for Social, Moral, and Ethical Values. Senior-Officials are available for problem-solving.

11. **Ladies Gymnasium:** A Gym is available within Girls' Hostel-Premises offers free access to females.

12. **Self Defense Training:** Organizing Self-Defence-Training in association with the Rajasthan-Police-Academy to build confidence among female-students.

13. **Common Rest Room:** ACE has a Departmental Mentoring System for inculcating Social, Moral and Ethical Values. Senior-Officials are always available for Grievance-Redressal without prior appointment at Common-Rest-Room. Contact-Numbers of POCs are displayed on Information-Boards in each department.

14. **Staff Quarters:** Well-Maintained Staff-Quarters and Hostel-Rooms are available for Female-Faculties.

15. **Pickup-&-Drop-Facility:** During Events, Pick-up-and-drop facility is available for female-faculties, staff and students.

16. **Day-Care Centre:** Daycare center for young children is in progress.

17. **Grievance Redressal:** Grievance-Redressal-Committee is formed to address discrimination grievances.

18. **Anti-Sexual-Harassment-Measures:**

1. **Anti-Sexual-Harassment-Committee:** Regular interactions with students and faculty during academic and non-academic activities.

2. **Hostel-Monitoring:** The Women's-Hostel is closely monitored by a Female-Warden and Staff, with Entry Registers maintained to track student movements.

3. **Safety-Measures:** Necessary Measures Implementation ensures the Girl-Students Safety.

File Description	Document
Upload Additional information	View Document

7.1.2

The Institution has facilities and initiatives for

1. **Alternate sources of energy and energy conservation measures**
2. **Management of the various types of degradable and nondegradable waste**
3. **Water conservation**
4. **Green campus initiatives**

5. Disabled-friendly, barrier free environment

Response: B. 3 of the above

File Description	Document
Policy document on the green campus/plastic free campus.	[View Document](#)
Geo-tagged photographs/videos of the facilities.	[View Document](#)
Circulars and report of activities for the implementation of the initiatives document	[View Document](#)
Bills for the purchase of equipment's for the facilities created under this metric	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

7.1.3

Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

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

Response: A. All of the above

File Description	Document
Report on Environmental Promotional activities conducted beyond the campus with geo tagged photographs with caption and date	[View Document](#)
Policy document on environment and energy usage Certificate from the auditing agency	[View Document](#)
Green audit/environmental audit report from recognized bodies	[View Document](#)
Certificates of the awards received from recognized agency (if any).	[View Document](#)
Provide Links for any other relevant document to support the claim (if any)	[View Document](#)

7.1.4

Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

Response:

Arya College of Engineering (ACE), since its establishment in 2005, has taken various initiatives for inculcating the values of tolerance, harmony towards cultural diversities which create very favorable impact on the collective and cultural thoughts of society.

To achieve the same, the institute has implemented the following initiatives:

1. **Orientation Programme:** At the commencement of new academic session, ACE hosts Orientation Programme "Aarambh," welcoming newly admitted students from diverse regions, castes, and religions. From day one, students attend college without encountering any discrimination, showcasing the institution's commitment to embracing the equality of all cultures and traditions.
2. **Dress Code:** All students adhere to a uniform, aimed at fostering unity under the institute's banner, irrespective of socio-economic differences. Moreover, the college encourages students to express their individuality through academic performance and personal pursuits rather than solely through clothing choices.
3. **Code of Ethics:** ACE has a Code of Ethics for students, teachers, and staff, emphasizing unity in diversity and adherence to ethical standards.
4. **Celebrations of Commemorative Day:** ACE celebrate the Commemorative Days of eminent personalities and national festivals to promote social and religious harmony. These celebrations serve as a platform for students and faculty from diverse backgrounds to come together, fostering tolerance and harmony across cultural, regional, linguistic, and socio-economic diversities.
5. **COVID Vaccination Camp:** ACE conducted multiple COVID Vaccination Camps and Over 3000 doses were administered during these camps to staff, students and residents of nearby villages.
6. **Free Health Check-up Camps:** Under the banner of NSS, ACE has organized more than **27 Free Health Chek-up Camps** in past 05 years in nearby villages and at the institute.
7. **Contribution in R&D:** Under the banner of **Captive Arya Incubation Centre**, ACE has developed many innovative products like **Bionic Hand**, **Diagnostic Therapeutic Machine (Health Kiosk), e-Vehicle, IoT based Agriculture System** to serve the society efficiently.
8. **Association with NGOs:** Collaboration with organizations like **Akshay Patra, Deaf and Dumb Foundation, Shree Bhagwan Mahaveer Viklang Sahayata Samiti** for social service and community support.
9. **Adoption of Villages:** Under the banner of **Unnat Bharat Abhiyan, IIT-Delhi**, College has **Adopted 05 Villages**.
10. **Educating Underprivileged Children:** A team of faculty members and students provide free elementary education to the underprivileged children in nearby villages.
11. **Women Achievers Award:** On the occasion of Women's Day, ACE honors and celebrates women who have made significant contributions to the upliftment of society.
12. **Cultural & Religious Day Celebration:** ACE celebrate diverse cultural and religious festivals like Janamastami, Holi, Mata ka Jagran, Lohri, Christmas, Eid, Diwali to promote tolerance, harmony, and understanding of different faiths and beliefs.

13. **Inter-Departmental and Inter-Collegiate Events:** ACE encourage students to participate in interdepartmental and inter-collegiate events to sensitize them towards cultural, regional, linguistic, and socioeconomic diversities.

14. **Participation in Various Clubs:** Students are encouraged to join various technical and non-technical clubs based on their interests, facilitating the exchange of ideas and the development of deep relationships.

These efforts contribute to the institution's goal of nurturing responsible and aware citizens.

File Description	Document
Upload Additional information	[View Document](#)

7.2 Best Practices

7.2.1

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

Response:

Best_Practice-1

Title of the Practice: Innovative Practices for Technological Advancement

Objective of the Practice:

As the world transitions into the 4.0 Industrial Revolution driven by technologies like Artificial_Intelligence (AI), Bio-Medical_Engineering, EV-Electrical Vehicle, Arya College of Engineering (ACE) recognizes the importance of incorporating these revolutionary advancements into its curriculum. College aims to establish various Centre of Excellences in newer technologies and develop ecosystem conducive to academic, learning processes, fostering excellence among students, faculty members, and stakeholders alike.

Context:

Renowned for its commitment for R&D, ACE boasts state-of-the-art labs recognized/certified by Rajasthan Technical University (RTU) as Centres of Excellence (COEs). These COEs serve as hubs for academic learning, training and industry readiness preparing students for the dynamic demands of industrial landscape. Faculty members also benefit from exposure to the latest-technologies, enhancing their teaching-methodologies and guiding students in industrial-based project-work.

The Practice:

The vision behind this practice is to excel in emerging areas & achieve innovation, research, and development, fostering a culture of incubation and startups. ACE has established several RTU Certified COEs, each focusing on critical areas of emerging technology:

1.   Artificial Intelligence and Robotics (AIR) : Catering to CSE and Allied Branches.

2.   e-Mobility, Research & Skill Development: Targeting Electrical and Mechanical Branches.

3.   PCB Manufacturing & Applications: Tailored for Electronics and Communication Branches.

4.   Material Testing & Concrete Technology: Addressing needs in the Civil Branch.

These COEs bridge the institutional-industrial gap by providing students with exposure to cutting-edge technologies, preparing them as industry-ready engineers. Students engage in projects from Design-to-Manufacturing, spanning AI, Machine-Learning, Robotics, LIDAR, Battery-Formation, E-Vehicle Technologies and more, fostering critical thinking and entrepreneurial skills.

Evidence of Success:

1.   **RTU Certified COEs in 4 critical areas** of the emerging technologies i.e. AI & Robotics, PCB-Manufacturing, e-Mobility, Concrete-Technology.

2.   Successful conversion of student innovations into startups, with products like Robocop ,Ruby Robot, **UV & Sterilization Robot** serving Security, Hospital, Restaurant areas and in **Govt. Department like Cyber-Cell, Delhi-Police, RCAT-Centre, RTU etc. and these products are approved as an OEM by GeM, GOI**.

3.   Setting up of Robotics-Lab of different products at RTU,Kota, RCAT Centre,Jaipur, Woxen-University etc.

4.   Patenting, Manufacturing of intra-disciplinary Bio-Medical-Engineering products like Bionic-Hand and Digital-Stethoscope, **Medical-Diagnostic Test Machine-DTM, PML** with **Medical-Device Manufacturing License by CDSCO,** GOI, aligned with NEP.

5.   Design-and-Manufacture of electric-vehicles, including ATV, Golf-Carts and Loading e-Rickshaws, in the e-Mobility COE. Products are commercially launched by student startup.

6.   **First Winner in Hackathon-SIH, Ideathon, Quizathon, Startup competitions like.**

·   **AICTE** Smart-India-Hackathon at MIT Pune. Prize-Money 1 Lac.

·   At **TEQIP RTU** Hackathon-Shankara College

·   At **VGU**, University

·   At **Science-Festival DST, GOR** with Prize-Money 11000.

·   At **Infosys** Project-Competition.

·   **Best Starup Awards** in the Field AI and Robotics by Former Chief Minister-GOR at **MSME** Startup_Competition-Laghu-Udyog.

Through its innovative practices, ACE continues to shape future technocrats and entrepreneurs while contributing to societal advancements and industry innovation.

Best_Practice-2

Title of the Practice: Green Campus in Accordance with Sustainable Development Goals of UN

Objective of the Practice:

The objective of our best practices is to initiate sustainability and conservation of nature by utilizing all available resources on campus.

Context:

ACE commits to a green campus initiative, focusing on sustainability and energy conservation to combat climate change. By incorporating advanced technologies and optimal practices, the college aligns with UN sustainability goals. Its expansive green campus, featuring well-maintained lawns and abundant trees, plays a crucial role in reducing carbon emissions and preserving the environment.

The Practice:

Steps Taken by the College to Maintain a Green_Campus

Renewable Energy Uses:

1. Established a 450-kilowatt captive Rooftop Solar Plant for Electricity Consumption as a Renewable Energy Source, significantly reducing CO2 Emissions by approximately 800 Tons Annually.
2. The college utilizes 15-kilowatt wind energy system powers for campus lighting
3. The college utilizes Biogas plant processes 50kg of food and biodegradable waste daily, yielding 3.0-5.0 cubic meters of biogas for cooking in Mess.
4. Dual 1.5-lakh litre rainwater harvesting tanks collect rainwater and the buildings facilitate rainwater harvesting, directing water from open areas to the tanks.
5. The college has Sewage-Treatment Plant-(STP) with a recycling capacity of 3_Crore Litres yearly since 2010 and recycles water used for campus greenery and construction..
6. Yearly conduct Tree Plantation activities within the campus and in surrounding villages to by students, faculty members, staff, and college authorities to promote the environmental conservation policies.
7. College conduct Seminars, Workshops, and Poster Competitions regularly for the Awareness of Environmental Sustainability and Climate Change
8. To minimize Electricity usage, the college has installed own manufactured LED Tube Lights and

Bulbs in the campus.

9. Encouraged college staff and students to switch off lights, Lights, Fans and AC's when not in use.
10. To Conserve Water, and Electricity the campus provides Collective Laundry Services to Hostel Students.
11. The college has installed special taps to prevent leakages and minimize losses of drinking water.
12. To improve waste management, the college uses separate bins for dry and wet waste campus-wide.
13. The college adheres to a Reduce, Recycle, and Reuse Policy for all materials, encompassing Paper, Plastic, and Construction Materials. And employs all possible measures to reduce the usage of these materials.
14. The college conducts regular green, energy and environment audits to maintain its commitment to a sustainable campus, fostering lasting environmental initiatives.
15. College uses E-Vehicle Golf-Cart for the visitors to visit the campus.
16. Use of E-Rickshaw to transport the Goods and other materials from one place to another in the campus.

Evidence of Success:

1. In consecutive months i.e. Feb and March-24 College has exported the surplus electricity to RACB which is the remarkable evidence of success.
2. Our success is evident through renewable energy use: 450kW solar plant, 15kW wind system cover 60% of electricity needs. Surplus energy, exported to RACB, yields of 1M units cut 1000-tons of CO_2-emission and saving 25000 trees annually.
3. Secondly, Recycled water from STP maintains campus greenery, aids in plantation and construction. Rainwater harvesting fulfills 50% of water needs. Embracing reduce, reuse, recycle principles with materials like paper, plastic, steel bars, and tires, we create sustainable products. All campus stakeholders are committed to UN sustainability goals, maintaining the green campus index.

File Description	Document
Best practices as hosted on the Institutional website	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:

1."Interdisciplinary Research & Development in Bio-Medical Engineering and Agriculture"

Introduction:

Under the New Education Policy NEP-2020, Arya College of Engineering (ACE) has embraced Cutting-Edge Technology for Research, Development, and Innovation, particularly in the field of Biomedical Engineering and Agriculture. This initiative aims to revolutionize healthcare delivery, improve agricultural practices, and contribute to societal well-being through accessible, equitable, and sustainable and low cost solutions. By fostering collaborations between faculty and industry partners, ACE endeavors to develop cutting-edge technologies that address pressing societal challenges and enhance public health outcomes.

Objective:

(A) In the Field of Medicine:

1. ACE embarked on its journey of innovation in 2018, pioneering the development of the First Bionic Hand, prosthetic device that operates based on brain instructions, offering amputees a natural hand-like experience. Through strategic partnerships with organizations like the Jaipur Foot Bhagwan Mahaveer Viklang Sahayata Samiti (BMVSS), for the Transfer of Technology and provide affordable Bionic Hands to hand amputees.
2. Furthermore, our foray into the development of a Digital Stethoscope yielded remarkable success, with our prototype winning the prestigious 1st prize at the AICTE-sponsored SIH in 2022-23 at MIT, Pune, showcasing our innovative prowess and manufacturing capabilities.
3. Amidst the COVID-19 pandemic, ACE responded with agility, designing and manufacturing a UV Sterilization Robot capable of achieving 100% sterilization in hospitals, including the prominent Mahaveer Cancer Hospital in Jaipur. This innovation, conceived and developed on campus, underscores ACE's commitment to leveraging technology for public health.

Primary and Secondary Healthcare Centers, particularly in rural areas post challanges, ACE developed the Diagnostic Therapeutic Machine (Heath Kiosk) and Portable Medical Lab (PML). These devices enable more than 50 rapid medical diagnostic tests, with the help of telemedicine prescription is generated. ACE has obtained various Regulatory Certifications, including ISO-13485, ICMED-13485, NABL, QCI, and CDSCO i.e. FDA of India Medical Device Manufacturing License (MD-7), validating the quality and reliability of our medical innovations.

1. ACE is at forefront of developing Low-Cost Cervical Cancer Photography and Imaging technology, leveraging artificial intelligence to enable early detection and treatment of cervical cancer, especially in rural India.
2. Our ongoing projects also include the development of a 24-hour Holter ECG machine with a Wearable Jacket, facilitating remote cardiac monitoring and predictive analytics to preempt heart-related conditions.
3. ACE's initiatives in neuroscience aim to enhance mental health support through advanced 12 EEG technology head cap with the help of outside non invasive NeuroChip Electronic PCB to enhance and amplify the thought process of a particular person and can know his psychological well being and AI-driven Algorithm Analysis and providing crucial insights for psychiatric care.

Evidence of Success: Medical Devices

1. As a proof of success ACE has received various Awards, Won 1stprizes for above mentioned Medical Equipment and Devices in Hackathon-SIH, Ideathon, Quizathon, and Startup competitions like.

- **AICTE Smart India Hackathon at MIT Pune. Prize Money 1 Lac.**
- **Winner of RTU TEQIP Innovative and Start-up Competition for Medical Device.**
- **Hackathon in TEQIP RTU Hackathon-Shankra College**
- **Hackathon in VGU University**
- **In Science Festival DST, GOR with Prize money 11000.**
- In Infosys Project Competition.
- **Best Starup Awards** by Former Chief Minister–GOR at MSME Startup Competition-Laghu Udyog.

1. Approval and Certificates from the various Regulatory Bodies of India. Like ISO 13485 and ICMED -13485 from Quality Council of India-(QCI)
2. MoU with BMVSS for the development of Bionic Hand and ACE donated 03 Bionic Hands to the Hand Amputees.
3. CDSCO i.e. FDA of India Medical Device Manufacturing Licence (MD-9), to manufacture Class-C Medical Devices.
4. Approved OEM Vendor by GEM & QCI (GOI) for DTM & PML.

(B) In the Field of Agriculture:

(I)   **IOT based Agriculture System :** ACE has developed an IoT-based Agriculture Monitoring System, enabling real-time tracking of temperature, humidity, soil condition, and essential 12 parameters, namely Macro & Micro nutrients and physical parameters like pH, EC, OC, for increasing the productivity of Green House and Hydro-phonic settings. This system, recognized for its innovation, has received awards and grants, positioning ACE as a leader in agricultural technology. With a prototype ready and patent applied and published, ACE is poised to revolutionize greenhouse and hydroponic farming practices.

(II)   **Mobile Frtigation Agriculture System :** ACE has designed the PLC-based Mobile Controlled Frtigation System, that provides precise fertilizer (N, P, K) and water (Irrigation) to farmers. This system optimizes nutrient mixing and delivery, enhancing crop productivity and sustainability.

Evidence of Success: Agricultural Innovations:

IOT based Agriculture System :

1. Received **RTU TEQIP Grant of Rs. 2.4 Lakh**.
2. Won various Hackathon & Ideathon Competition in AICTE, RTU TEQIP, VGU etc.
3. Submitted Proposal in IIT, Delhi under UBA Scheme in 2022.

Mobile Frtigation Agriculture System :

1. Prototype ready and Patent applied and published

2. Participated in various Hackathon & Ideathons under RTU TEQIP, DST, Science Festival (Vigyan Bharti), FORTI etc.

2. "Arya Girls Scholarship (AGS) Scheme: Beti-Bachao-Beti-Padhao (BBBP)"

College has vision imparting quality education to the students Institution is committed for imparting education without any bias of cast, creed and culture. Institution sensed that women are facing challenges gender inequality evidence by data too:

1. In Rajasthan Female literacy-rate is 57.6% while the Male Literacy-rate is 80.8%.
2. All India Female Literacy-rate is 70.3%.
3. Female sex ratio in Rajasthan is 928:1000.
4. Childs sex ration is 888:1000.

In tune with its commitment College has endorsed the Prime-Minister's vision of BBBP, through the Scheme by providing merit-based cum economical-scholarships to girl students in all the courses.

Started in 2016, this scholarship aims to deliver quality education in the field of higher education. By providing Education to Girl Child to empower them in their life by making financially independent and to integrate them in development and progress of Nation.

Objectives:

1. Ensuring education and participation of the girl child in Higher Technical and Professional Education
2. To help to remove Gender Based Discrimination and Elimination

The scheme is open to girls without any caste, religious or socio-economic discrimination and purely based on merit and economical condition.

Steps taken to promote:

1. Poster launch & inaugural
2. Women education awareness drives and campaigns
3. Counselling of parents/students
4. Promotion via multiple social media platforms.
5. TV Interviews on National TV like DD News, DD National.
   1. https://youtu.be/EcDM7Qpxb20,
   2. https://youtu.be/r6IilLUiZrU

File Description	Document
Appropriate web in the Institutional website	[View Document](#)
Any other relevant information	[View Document](#)

5. CONCLUSION

Additional Information :

01. **Best-Engineering-College in Rajasthan–2023 Award** by **CEGR.** Award presented by the **Chairman-Executive-Committee-NAAC, Dr. Anil Sahasrabudhe** and **Chairman-AICTE, Dr. T.G.Sitharam**.

02. In 2012, ACE become **Youngest-College** to get **NBA-Accreditation** in **CSE and ECE branches** and later **Accredited in EE & IT branches**.

03. **NBA Re-accredited** the **CSE-Branch** in 2022.

04. **Highest RTU-Merit** achieved in the past 03 years, Total **38 RTU Merits** achieved including of **09 Gold Medalist (1st_Rankers)**.

05. **State-of-the-Art Industrial-Laboratories** under COE include **SMT-Lab, Robotic-Manufacturing-Lab, e-Vehicle-Manufacturing-Lab, PCB-Manufacturing-Lab** to impart industry-based-learning.

06. **Best-Placement-Award** from CNBC & Times-Now.

07. **AICTE Approved IDEA_Lab.**

08. **Paid Internships** provided to 500+ students in various companies under the **Earning-while-Learning-Scheme**.

09. First day placement have been conducted with **Capgemini** for 04 years.

10. ACE is led by **Highly-Qualified and Awarded-Winning-Management**.

11. **Highest number of CSR-Activities** undertaken with **Barclays, Syntel, Honeywell, Zensar, & CAD Centre etc** for student's Certification_programs.

12. **Setup Robotic-Lab at RTU,Kota and R-CAT,Jaipur** by providing State-of-the-Art Robots for Teaching-Learning-Process on campus.

13. **Highly-Qualified and Experienced-Faculty** ensure the Best-Academic-Environment for securing RTU-Merits and Top-placements.

14. **Teacher-Student-Ratio of 1:12** ensures enhanced learning outcomes.

15. Well-defined-**Policies for Staff-Welfare-Measures**.

16. During COVID-19 Pandemic, college provided full-salary to faculties/staffs.

17. Awarded-**Scholarships to Girls** under **'Beti-Padhao-Beti-Bachao' Scheme** with **Rs. 2.8 Crores** in ten years.

18**.** ACE support **Green-Campus-Initiative** by implementing Green-Landscaping, Energy-Efficient-Measures, Comprehensive-Water_Recycling and **Renewable-Energy measures.** Through **Solar-Plant, Wind-Plant and Biogas**.

19. Under **Unnat-Bharat-Abhiyan**, ACE adopted 05 villages and conducted various extension-activities such as Tree-Plantation, COVID-Vaccination-Camp, Free-Medical-Check-up-Camps, Awareness-Sessions and received a **grant of Rs. 50,000/- from IIT Delhi.**

20. **Robotic-Workshops** for teaching emerging-technologies.

21. **1st IIT Bombay FOSS_Centre** for self-learning and Certification.

22. Conducts **Green, Energy and Environment Audits**.

23. Conducts many AICTE-Activities **15 Days Induction program**, **MOOCs on NPTEL-Swayam-Portal, NIC, IIC, KAPILA, and ARIIA** etc.

24. **ACE is known for hosting Centralized-Placement-Drives** for IBM, Pinnacle, Tech Mahindra. Accenture, TCS, Infosys, Huron, Metacube, Codetrade, Genus, Consultadd, Cyntexa, Xebia, Collabera, Torrent Gas, TechMatrix, NIIT, Daffodil, MG Motors etc.

25. Democratic-Governance through Decentralization of Responsibilities, Financial Powers and mobilization of funds.

26. ACE is **Golden-Partner of Infosys-Campus-Connect-Program**.

27. Won many of the **Prestigious-Competition** including **SIH, Hackathon, Ideathon** etc.

28. **Ragging/Tobacco/Alcohol Free Campus.**

Concluding Remarks :

1. Curricular aspects are important especially for comprehensive growth of students by teaching interdisciplinary and innovative approach in emerging technological areas.
2. Strict adherence to the curriculum and completion of syllabus on time in accordance with RTU guidelines and academic calendar.
3. Extensive uses of ICT components for teaching and giving additional emphasis on delivery of Curriculum and other activities.
4. Qualified and dedicated faculty members promoting research and innovation and encouraging student to excel.
5. Faculty sponsorships for workshops, conferences, seminars and publications to promote research activities.
6. Transparent examination pattern and comprehensive internal evaluation system.
7. Ragging-free campus with display of posters, banners and continuously monitored by vigilance squad.
8. Well-equipped Digital Library with printed books, E-books Journals, E-journals, online resources.
9. Active Support systems in the form of various committees, clubs and cells. Student friendly atmosphere.
10. Choice based credit system (CBCS) and MOOC's Courses are to provide B. Tech (Hons.) by earning

20 extra credits during four years.

11. Assigning Mentors to all student for extra support and overall growth of the mentees.

12. Comprehensive ecosystem for R&D, Incubation, Innovation and Start-Up oriented activities.

13. Continuous outreach programs for achieving total Quality Management System like Workshops, Seminars, Internship, Project, Field work, participation at various events and competitions, Training & Placement, Entrepreneurship and start-Ups for fostering global competencies among students.

14. Sensitization, Human values and Professional Ethics, Disaster Management, environmental science etc in tune with the fast-changing world for developing Social Awareness and Conscience.

15. Gender sensitization creates a positive outlook in students about gender roles, gender equality and women empowerment. We promote understanding of importance of right attitude to work.

16. Internal Quality Assurance Cell is working rigorously and planning through democratic, participative, mentoring and inserting innovative ideas of faculty members and students.

17. **Remarkable Extension activities** conducted by NSS, Social Cause and active participation of the students through Shradhanjali (Technical Symposium), Annual Function, Farewell, Fresher's, Teacher Day celebration and other departmental club activities.

18. Continuous networking and involvement of Alumni in Student Development and placements.

19. Management of **Student Feedback Grievance and Redressal cell** for having transparency and to provide equality among all students.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification

1.3.2	**Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)**
	
	    1.3.2.1. **Number of students undertaking project work/field work / internships**
	        Answer before DVV Verification : 881
	        Answer after DVV Verification: 852
	
	    Remark : DVV has made changes as per prescribed format shared by HEI values have been downgraded due to repetitive name

1.4.1	*Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website*
	
	        Answer before DVV Verification : A. Feedback collected, analysed, action taken& communicated to the relevant bodies and feedback hosted on the institutional website
	        Answer After DVV Verification: B. Feedback collected, analysed and action has been taken and communicated to the relevant bodies
	        Remark : DVV has made the changes as per the input data shared by HEI

2.4.2	*Percentage of full time teachers with NET/SET/SLET/ Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)*
	
	    2.4.2.1. **Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years**
	        Answer before DVV Verification:
	
	<table><tr><td>2022-23</td><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td></tr><tr><td>20</td><td>23</td><td>17</td><td>20</td><td>14</td></tr></table>
	        Answer After DVV Verification :
	
	<table><tr><td>2022-23</td><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td></tr><tr><td>23</td><td>23</td><td>17</td><td>20</td><td>14</td></tr></table>
	
	    Remark : DVV has made changes as per supporting documents shared by HEI and the value for 2022-23 have been upgraded basis the same

3.1.1	*Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)* 3.1.1.1. **Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the last five years (INR in Lakhs)**

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
15.79	5.05	2.5	24.35	4.16

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
0	2.25	0	7.85	4.16

Remark : DVV has made changes basis the prescribed data shared by the HEI

3.2.2 — *Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years*

   3.2.2.1. **Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years**

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
26	10	7	6	2

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
5	6	2	2	0

Remark : DVV has made the changes basis the supporting shared by the HEI.

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

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
490	606	644	576	475

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
458	520	560	529	460

Remark : DVV has made the necessary changes basis the prescribed data shared by the HEI

3.4.3	*Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community during the last five years.*
	3.4.3.1. Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
28	21	6	14	7

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
13	10	3	5	5

Remark : DVV has made changes as per prescribed format shared by HEI and values have been downgraded due to repetitiveness of same event in year 2022-23

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

Answer before DVV Verification :
Answer After DVV Verification :37
Remark : DVV has made changes as per supporting document shared by HEI and the values have been downgraded basis the same

4.1.2	*Percentage of expenditure for infrastructure development and augmentation excluding salary during the last five years*

4.1.2.1. Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
210.51	195.06	188.45	201.65	275.62

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
184.19	183.99	173.55	183.34	231.95

Remark : DVV has made the changes as per the prescribed data shared by the HEI

4.3.2	**Student – Computer ratio (Data for the latest completed academic year)**

4.3.2.1. **Number of computers available for students usage during the latest completed academic year:**

Answer before DVV Verification : 920
Answer after DVV Verification: 890

Remark : DVV has made changes as per documents shared by HEI, basis the same the value have been downgraded.

4.4.1	*Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years (INR in Lakhs)*
	4.4.1.1. **Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year wise during the last five years (INR in lakhs)**

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
442.20	256.11	192.41	387.52	491.69

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
80.65	33.48	40.72	105.44	130.85

Remark : HEI has made the necessary changes

5.1.2	*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. ICT/computing skills

Answer before DVV Verification : A. All of the above
Answer After DVV Verification: B. 3 of the above
Remark : DVV has made the changes basis the supporting shared by the HEI

5.3.1	**Number of awards/medals for outstanding performance in sports/ cultural activities at 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 for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year wise during the last five years*

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19

| 10 | 7 | 3 | 9 | 20 |

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
8	2	3	4	8

Remark : HEI has made the necessary changes

5.3.2	**Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)** 5.3.2.1. **Number of sports and cultural programs in which students of the Institution participated year wise during last five years** Answer before DVV Verification: TABLE_BEFORE Answer After DVV Verification : TABLE_AFTER Remark : DVV has made changes as per prescribed format shared by HEI, the values have been downgraded cause the celebration based on on specific days(republic day) are not considered.

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
46	34	14	38	58

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
43	30	9	36	55

Remark : DVV has made changes as per prescribed format shared by HEI, the values have been downgraded cause the celebration based on on specific days(republic day) are not considered.

6.2.2	*Institution implements e-governance in its operations*
	
	   1. **Administration**
	   2. **Finance and Accounts**
	   3. **Student Admission and Support**
	   4. **Examination**
	
	   Answer before DVV Verification : A. All of the above
	   Answer After DVV Verification: B. 3 of the above
	Remark : DVV has made the changes basis the supporting shared by the HEI

6.3.3	*Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years* 6.3.3.1. **Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP),** *Management Development Programmes (MDPs)* **professional development /administrative training programs during the last five years** Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
93	85	84	87	86

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
108	85	84	87	86

6.3.3.2. **Number of non-teaching staff year wise during the last five years**

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
14	11	6	6	6

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
14	11	6	6	6

Remark : DVV has made changes as per prescribed format shared by HEI, the value have been upgraded basis the same.

7.1.2	**The Institution has facilities and initiatives for** 1. **Alternate sources of energy and energy conservation measures** 2. **Management of the various types of degradable and nondegradable waste** 3. **Water conservation** 4. **Green campus initiatives** 5. **Disabled-friendly, barrier free environment** Answer before DVV Verification : A. 4 or All of the above Answer After DVV Verification: B. 3 of the above Remark : DVV has made the changes basis the supporting's shared by the HEI

2.Extended Profile Deviations

ID	Extended Questions
1.1	**Expenditure excluding salary component year wise during the last five years (INR in lakhs)** Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
683.90	468.28	397.15	605.92	805.00

Answer After DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19

712.87	489.38	406.47	631.31	826.29