YEARLY STATUS REPORT - 2020-2021

Part A	
Data of the Institution	
1.Name of the Institution	INSTITUTION OF AERONAUTICAL ENGINEERING
• Name of the Head of the institution	Dr. L V Narasimha Prasad
• Designation	Principal
• Does the institution function from its own campus?	Yes
• Phone No. of the Principal	04029705852
• Alternate phone No.	9703618753
• Mobile No. (Principal)	9490182900
• Registered e-mail ID (Principal)	principal@iare.ac.in
• Address	Institute of Aeronautical Engineering Dundigal, Hyderabad – 500 043, Telangana, India.
• City/Town	Hyderabad
• State/UT	Telangana
• Pin Code	500043
2.Institutional status	
• Autonomous Status (Provide the date of conferment of Autonomy)	13/10/2015
• Type of Institution	Co-education
• Location	Rural

• Financial Status	**Self-financing**
• Name of the IQAC Co-ordinator/Director	**Dr. Y Mohana Roopa**
• Phone No.	**04029705853**
• Mobile No:	**8886023000**
• IQAC e-mail ID	**dean-iqac@@iare.ac.in**
3.Website address (Web link of the AQAR (Previous Academic Year)	https://www.iare.ac.in/sites/default/files/AQAR_2019-2020.pdf
4.Was the Academic Calendar prepared for that year?	**Yes**
• if yes, whether it is uploaded in the Institutional website Web link:	https://www.iare.ac.in/?q=pages/iare-academic-calendar

5.Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	**A**	**3.05**	**2015**	**15/11/2015**	**31/12/2021**

6.Date of Establishment of IQAC	**05/12/2015**

7.Provide the list of Special Status conferred by Central and/or State Government on the Institution/Department/Faculty/School (UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC, etc.)?

Institution/ Department/Faculty/School	Scheme	Funding Agency	Year of Award with Duration	Amount
Institute / Department	Poverty Alleviation and Upliftment of Tribal Woman through Mechanized Manufacturing of Traditional Ornaments and House Hold Products	DST	02/03/2020	16310000

8.Provide details regarding the composition of the IQAC:

• Upload the latest notification regarding the composition of the IQAC by the HEI	View File	

9.No. of IQAC meetings held during the year	**4**
• Were the minutes of IQAC meeting(s) and compliance to the decisions taken uploaded on the institutional website?	**Yes**
• If No, please upload the minutes of the meeting(s) and Action Taken Report	No File Uploaded

10.Did IQAC receive funding from any funding agency to support its activities during the year?	**No**
• If yes, mention the amount	

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

Received Research grants from AICTE, DST totaling about 174.14 Lakhs

in 2020-2021	

Recruited Ph.D qualified faculty with the concept of Quality initiative in teaching. 25% of Ph.D faculty, out of 258 are available. 75 faculty members are pursuing Ph.D in the reputed Institutes / Universities.

Enhanced the digital content by the faculty to help the slow learners

Participated in Unnat Bharat Abhiyan

Online and Onscreen digital evaluation and marking of answer scripts

12.Plan of action chalked out by IQAC at the beginning of the academic year towards quality enhancement and the outcome achieved by the end of the academic year:

Plan of Action	Achievements/Outcomes
Participation in National Institutional Ranking Framework (NIRF)	Institute is ranked 159 in engineering category as per National Institutional Ranking Framework (NIRF)-2021, Ministry of Human resource Development (MHRD), Govt. of India.
Academic and administrative audit	Internal audit was successfully completed in all the departments
Plan for introduce of the courses in emerging areas in Computer Science and Information Technology	Four UG programs in Computer Science and Information Technology were included • Computer Science and Engineering (AI & ML) • Computer Science and Engineering (Data Science) • Computer Science and Engineering (Cyber Security) • Computer Science and Information Technology
Conduction of class work virtually and procurement of learning management system	Successfully schedule was prepared and classes were conducted as per schedule through ZOOM platform during pandemic.
Faculty members are encouraged to register courses in Swayam / NPTEL and Coursera to enhance	Most of the faculty members registered and completed courses in Swayam/NPTEL and Coursera and

their knowledge	during the pandemic.
Collaborations and exchange programs with premier institutions for the academic year 2020-2021	Industry Institute Interface center is actively conducting the activities under collaborations and exchange programs with premier institutions.
ARIIA Rankings.	IARE secured 'Band-B' institution in category of 'Private or Self-Financed College/Institutes' in Atal Ranking of Institutions on Innovation Achievement (ARIIA) – 2020 and data for ARIIA – 2021 was submitted
Preparation of Annual Quality Assurance Report (AQAR) 2020-202120.	AQAR 2020-2021 is prepared.
Enhancement of Teaching learning activities with combination of ICT tools	Teaching learning with combination of ICT tools and various pedagogies were implemented.
Preparation of analysis on quality parameters	Impact analysis on quality parameters was prepared in terms of quality sustenance and quality enhancement and it is found to be satisfactory.
Submission of research proposals.	Research and Development center submitted research proposals for various funding agencies and review by agencies is in progress.

13.Was the AQAR placed before the statutory body?	Yes

- Name of the statutory body

Name of the statutory body	Date of meeting(s)
Governing Body	26/04/2021

14.Was the institutional data submitted to AISHE ?	Yes

- Year

Year	Date of Submission
01/07/2021	26/02/2022

15.Multidisciplinary / interdisciplinary

The NEP-2020 is based on the principle that education must develop not only cognitive capacities - both the 'foundational capacities' of literacy and numeracy and 'higher-order' cognitive capacities, such as critical thinking and problem solving – but also social, ethical, and emotional capacities and dispositions.

The NEP-2020 envisages a student centric educational system with an opportunity to learn multiple courses and programs and provides a comparable and globally competitive educational system. It transforms the existing Higher Educational System into creative, innovative and research-oriented system.

- Institute offering minor degree in web application development in association with AICTE Lite program with 18 credits. 543 students are registered for this program.
- Institute has introduced Honours and Minor degrees in the emerging areas to enhance the employability.
- The curriculum is enriched with open electives drawn from multidisciplinary approach.
- The B.Tech curriculum is embedded with modules associated with experiential learning (Design and manufacturing philosophy, Project based and research based) with 5 credits.
- Technology innovation centre is established where students can develop their innovative ideas into products.
- Institute has a TBI, common facilitation centre in association with MSME funding more than 1 crore investment on plant and machinery for incubating the ideas.

16.Academic bank of credits (ABC):

- The institute is registered on the ABC (Academic Bank of Credits) portal to facilitate credit mobility for students from Academic Year 2022-2023.
- Academic Bank of Credit (ABC) of the institute to facilitate

transfer of credits acquired by the students from institute to another institute for the award of a degree.

17.Skill development:

The Careers and Employability Skills Training (CEST) is a unique and dedicated program of the institute under "Careers Development Center". The advent of globalization has opened up Indian economy to the outside world. The competition among industries has become stiff; therefore, it is urgently needed to prepare engineering students for jobs in multinational companies, by exposing them to newer technologies and engineering methodologies. CEST is there to create a healthy environment by engaging Industry and Academia resources combined in skill building programs (SkillUP and SkillBridge).

- Virtusa centre of excellence and EPAM have established their COE for skill enhancement and placements in the academic year 2021-2022.
- Tech Mahindra centre of excellence is establishing in the academic year 2022-2023.
- M/s. MTE Industries and design labs (academic partners of the AutoDesk) has established the industry supported laboratories for the academic and industry interaction.
- Institute has well established Industry - institute interaction centre which bridges the gap between industry and academia by sponsoring the students for projects.

Building Partnerships for the Future

- The office of international affairs came into existence in 2018 and acts as a bridge between the Institute of Aeronautical Engineering and the world. Within 1 year since its inception, the office has inked MoU's with 12 premiere universities and institutions in 9 countries for various collaborative activities including faculty as well as student exchange programs, joint research programs, symposia, workshops, internships, etc. The institute works relentlessly to promote global engagement to meet world class standards of education.

IARE has active partnerships with the following foreign universities towards promoting research collaborations, and student as well as faculty exchange.

- King Mongkut's Institute of Technology Ladkrabang, Thailand.
- Nakhon Pathom Rajabhat Univerity, Thailand.
- Nanyang Technological University, Singapore.
- Southern University and A & M College, Lousiana, Baton Rouge, USA.
- University of Malaya, Malaysia.
- Management and Science University, Malaysia.
- Vientana National University, Ho Chi Minh City, Vietnam.
- Institute of Technology, Bandung, Indonesia.

IARE has active Partnerships with the following Indian universities and Institute towards promoting research and academic activity collaborations

- National Institute of Technology, Warangal
- Military College of Electronics and Mechanical Engineering, Hyderabad
- Kalam Institute of Health Technology (KIHT)
- Santhiram Engineering College, Nandyal.
- SVR Engineering College, Nandyal
- Hyderabad Institute of Electrical Engineers (HIEE)

The internationalization strategy at the institute is founded on the four pillars: research, education, cultural engagement, and skill development. This strategy is also reflected in the objectives of MoUs as given below:

- Development of collaborative research
- Organization of seminars, workshops, and other meetings on specific topics
- Exchange of students
- Exchange of research scholars
- Exchange of faculty members

18.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)

- Faculty and students are completing the MOOC courses through AICTE Swayam and NPTEL platforms.
- Institute has NPTEL local chapter.
- More than 200 students and faculty completed their MOOCs
- The UG and PG curriculum is having the components on Indian traditional knowledge, Constitution of India, Human values and professional ethics etc.
- Introducing culture related programs in subjects such as Indian languages, yoga, life skills, history, culture, and

modern India.

- Establishment of various clubs for sports, dance, music, photography, fine arts, theatre activities, extension activities, literary activities, animation and designing etc. for up-skilling of the students.
- Multidisciplinary and holistic education across the sciences, social sciences, arts, humanities, and sports in order to ensure the unity and integrity of all knowledge.
- Offering a course on value-based education including the development of humanistic, ethical, constitutional, and universal human values.

19.Focus on Outcome based education (OBE):Focus on Outcome based education (OBE):

- Institutions adopting OBE try to bring changes to the curriculum by dynamically adapting to the requirements of the different stakeholders like Students, Parents, Industry Personnel and Recruiters. OBE is all about feedback and outcomes.

- Evaluation of Student Learning Outcomes (ESLO) is a computing tool for calculating course attainments and programme attainments as per OBE. It is integrated with all necessary criteria required for the assessment of students learning outcomes.

- It is helpful in the process of mapping the course outcomes with the program outcomes automatically through the digital platform. It is made easier to get access to the authentic and accurate data of evaluation process of student learning outcomes. ESLO has a provision to enter details of CIE and SEE question to mapping of blooms taxonomy levels.

- Attainment of course outcomes, program outcomes and program specific outcomes are performed through this module easily. It also gives CO/PO/PSO attainment and OBE feedback report. This platform enables to assess student graduate attributes to the degree of specificity in a learning outcome statement and that is achieved by the assessment criteria.

- Appropriate corrective measures are implemented to bridge the curriculum gaps by conducting various inviting lectures, professional activities like participating in design challenges, Modelling and Experimental Tools in engineering (METE) project expos etc.

20.Distance education/online education:

- Use of technology-based education platforms, such as NPTEL / SWAYAM / DELNET / COURSERA.

- **Well established in-house Akanksha Learning Management portal.**
- **A Centre for Education and Learning Technologies has been established to enhance the teaching learning process.**
- **Blending of traditional teaching with the online in undergraduate and vocational programs**
- **Rigorous teacher training in learner-centric pedagogy and on how to become high quality online content creators using online teaching platforms and tools**
- **Online education to be blended with experiential and activity-based learning for desired outcomes**
- **Identifying different effective models of blended learning for different courses while considering the essential importance of face to face learning.**
- **Digital content in multiple Indian languages to address the issue of linguistic diversity.**
- **One smart classroom with latest ICT facilities with sound technical support in each department.**
- **Vocational Education to promote employment in local area and rural employment**
- **Establishment of Incubation Centres in partnership with industries/ Sector-Skill Council.**
- **Vocational Education programmes with multiple exit/entry options.**
- **Autonomy to the faculty for curriculum designing, pedagogy and assessment strategies**
- **Empowering the faculty to adopt innovative pedagogical approaches to enable them to perform creatively**
- **Recognition to the faculty adopting engaging innovative methods and tools for teaching**
- **Freedom to the teacher to review and amend the curriculum, periodically**
- **Empowering the teacher to devise and adopt appropriate strategies for formative and comprehensive assessment**
- **Promoting the teachers to integrate research with teaching.**

Extended Profile

1.Programme

1.1   **18**

Number of programmes offered during the year:

File Description	Documents
Institutional Data in Prescribed Format	[View File](#)

2.Student

2.1   **4844**

Total number of students during the year:

File Description	Documents
Institutional data in Prescribed format	View File

2.2   **1263**

Number of outgoing / final year students during the year:

File Description	Documents
Institutional Data in Prescribed Format	View File

2.3   **4847**

Number of students who appeared for the examinations conducted by the institution during the year:

File Description	Documents
Institutional Data in Prescribed Format	View File

3.Academic

3.1   **1118**

Number of courses in all programmes during the year:

File Description	Documents
Institutional Data in Prescribed Format	View File

3.2   **284**

Number of full-time teachers during the year:

Extended Profile

1.Programme

1.1 Number of programmes offered during the year:	**18**

File Description	Documents
Institutional Data in Prescribed Format	View File

2.Student

2.1 Total number of students during the year:	**4844**

File Description	Documents
Institutional data in Prescribed format	View File

2.2 Number of outgoing / final year students during the year:	**1263**

File Description	Documents
Institutional Data in Prescribed Format	View File

2.3 Number of students who appeared for the examinations conducted by the institution during the year:	**4847**

File Description	Documents
Institutional Data in Prescribed Format	View File

3.Academic

3.1 Number of courses in all programmes during the year:	**1118**

File Description	Documents
Institutional Data in Prescribed Format	View File

3.2 Number of full-time teachers during the year:	**284**

File Description	Documents
Institutional Data in Prescribed Format	[View File](#)

3.3 Number of sanctioned posts for the year:	**284**

4.Institution

4.1 Number of seats earmarked for reserved categories as per GOI/State Government during the year:	**399**
4.2 Total number of Classrooms and Seminar halls	**91**
4.3 Total number of computers on campus for academic purposes	**1855**
4.4 Total expenditure, excluding salary, during the year (INR in Lakhs):	**180000000**

Part B

CURRICULAR ASPECTS

1.1 - Curriculum Design and Development

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

The courses like Essence of Indian Traditional Knowledge, Professional Ethics and Human Values, Gender Sensitivity, Entrepreneurship etc. and Experiential Engineering Education (ExEED)are introduced for start-up / entrepreneurship culture among the students,which are facilitated through incubation centres at IARE.

Local & Regional: Institute ensures that the curriculum will addresses the needs of the society and has relevance to the local, regional and national developmental needs through the mandatory courses. It is introduced to imbibe moral values, ethics and create awareness about social responsibilities among the students by understanding the needs of the society.

Digital Learning Hub, an initiative by Telangana Stateto 4 lakh students across 1500 institutions of higher education at free of cost in the state. All the institutions in Telangana have mandated this course for appropriate credits. It covers ample number of topics that enhances the employability quotient of the student at global par.

National & Global: The institute has lntroucedvarious new programs in Data Science, Cyber Security, Artificial Intelligenceand Machine Learning, and other fields to meet national and global significant sustainability. Graduates' competence will improve as a result. Economic expansion will be facilitated through courses aligned with the country's national purpose of "Make-in-India".

File Description	Documents
Upload additional information, if any	View File
Link for additional information	https://www.iare.ac.in/NAAC/documents/c1/1.1.1_Curricular_Development.pdf

1.1.2 - Number of Programmes where syllabus revision was carried out during the year

11

File Description	Documents
Minutes of relevant Academic Council/BOS meeting	View File
Details of syllabus revision during the year	View File
Any additional information	No File Uploaded

1.1.3 - Number of courses focusing on employability/entrepreneurship/ skill development offered by the Institution during the year

649

File Description	Documents
Curriculum / Syllabus of such courses	[View File](#)
Minutes of the Boards of Studies/ Academic Council meetings with approval for these courses	[View File](#)
MoUs with relevant organizations for these courses, if any	[View File](#)
Any additional information	**No File Uploaded**

1.2 - Academic Flexibility

1.2.1 - Number of new courses introduced across all programmes offered during the year

679

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	[View File](#)
Any additional information	**No File Uploaded**
Institutional data in prescribed format (Data Template)	[View File](#)

1.2.2 - Number of Programmes offered through Choice Based Credit System (CBCS)/Elective Course System

18

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	[View File](#)
Any additional information	**No File Uploaded**
List of Add on /Certificate programs (Data Template)	[View File](#)

1.3 - Curriculum Enrichment

1.3.1 - Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability, and Human Values into the curriculum

Many cross-cutting issues are also informally covered during

special events like blood donation camp, tree plantation, Swachh Bharat Abhiyan, Save Trees Awareness Program, World Environment Day, etc.

The institute curriculum effectively integrates cross-cutting issues relevant to gender, environment and sustainability, human values and professional ethics and leads to a strong value-based holistic development of students.

Various activities are organized throughout the year as part of the curriculum that help in this endeavor.

The institute has prescribed few courses for all engineering programs relevant to gender, environment and sustainability, human values and professional ethics, in its curriculum.

1. Gender Sensitivity:

Gender related courses are an integral component of various programs. Students are sensitized and encouraged to work towards gender equity from a cross-cultural perspective.

Institute annually organizes seminars, conferences, guest lectures, exhibitions, street plays and literary activities that help in gender sensitization.

1. Environment and Sustainability: Institute's strong community orientated work culture is based on the sustainable way of life, that involves integration of water quality, air quality and healthcare, innovation and human values.

1. Human Values and Professional Ethics: The curriculum has the following compulsory courses in programs specially focused on the development of human values and professional ethics:

1. Cultural Education

2. Research Methodology and IPR

3. Rural Development

4. Social Service

5. Co-curricular Activities

6. Environment Studies

7. Disaster Management

File Description	Documents
Upload the list and description of the courses which address issues related to Gender, Environment and Sustainability, Human Values and Professional Ethics in the curriculum	View File
Any additional information	**No File Uploaded**

1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

30

File Description	Documents
List of value-added courses	View File
Brochure or any other document relating to value-added courses	View File
Any additional information	**No File Uploaded**

1.3.3 - Number of students enrolled in the courses under 1.3.2 above

4171

File Description	Documents
List of students enrolled	View File
Any additional information	**No File Uploaded**

1.3.4 - Number of students undertaking field work/projects/ internships / student projects

85

File Description	Documents
List of programmes and number of students undertaking field projects / internships / student projects	View File
Any additional information	View File

1.4 - Feedback System

1.4.1 - Structured feedback and review of the syllabus (semester-wise / year-wise) is obtained from 1) Students 2) Teachers 3) Employers and 4) Alumni	A. All 4 of the above

File Description	Documents
Provide the URL for stakeholders' feedback report	https://www.iare.ac.in/NAAC/documents/c1/1.4.1_Student_Feedback_for_Design_and_Review_of_Syllabus_2020-2021.pdf
Upload the Action Taken Report of the feedback as recorded by the Governing Council / Syndicate / Board of Management	View File
Any additional information	No File Uploaded

1.4.2 - The feedback system of the Institution comprises the following	A. Feedback collected, analysed and action taken made available on the website

File Description	Documents
Provide URL for stakeholders' feedback report	https://www.iare.ac.in/NAAC/documents/c1/1.4.1_Student_Feedback_for_Design_and_Review_of_Syllabus_2020-2021.pdf
Any additional information	View File

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment of Students

2.1.1.1 - Number of students admitted (year-wise) during the year

1211

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

2.1.2 - Number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as

per the reservation policy during the year (exclusive of supernumerary seats)

377

File Description	Documents
Any additional information	View File
Number of seats filled against seats reserved (Data Template)	View File

2.2 - Catering to Student Diversity

2.2.1 - The institution assesses students' learning levels and organises special programmes for both slow and advanced learners.

The Institute provides learning opportunities at various levels based on students' performance in continuous internal assessments. After identifying the gaps, a few bridge courses are held for the benefit of slow learners. As part of the regular teaching learning process, remedial classes for slow learners are held. Advanced students are given tasks to help them improve their critical thinking skills.E-learning materials containing video lectures and lecture notes are provided for the benefit of slow learners, allowing them to learn at their own pace.

The initiatives for the support of slow learners:

- Skill Bridge Program: A specially designed courses for job guarantee are conducted.
- Mentoring: Each student receives personal and professional support through counselling. Mentors continuously monitor the performance of slow learners and mentor them.
- Remedial classes: After completion of CIA - I, students with less than 50% marks in more than 50% of courses and considered as slow learners.

Initiatives to encourage advanced learners:

- Skill-Up Program: A specially designed employability courses to achieve high impact jobs.
- Accelerator Courses: CGPA of 7.5 or higher are encouraged to take up any one additional course of the next higher semester.
- A full semester internship
- Motivated to participate in national and international competition

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.iare.ac.in/NAAC/documents/c2/2.2.1_Slow_Learner.pdf

2.2.2 - Student – Teacher (full-time) ratio

Year	Number of Students	Number of Teachers
01/04/2021	4844	284

File Description	Documents
Upload any additional information	View File

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:

The philosophy of bringing books to life and books to life is made a regular practise in the Institute, which increases students' understanding of the class subject. IARE's curriculum promotes student-centered methods such as experiential learning, project-based learning, undergraduate research experience, internships, and so on. Experiential Engineering Education is the institute's progressive ladder for experiential learning (ExEED). All students participate in well-planned, supervised, and assessed experiential learning programs to stimulate academic inquiry by promoting interdisciplinary learning, strong technical skills in engineering design and computation, and key business skills to business model generation. To encourage students to experiment with new ideas, the institute has established the Technology Innovation and Incubation Centre (TIIC) and the Science and Technology Start-Up Park (STSP).

Technology assisted Tech Talk and Concept Videotowards improving communication and presentation skills is made as a part of Continuous Internal Assessmentdoes not give room to asses speaking and listening skills. Aakansha Portal, which includes course videos and e-Learning materials, allows for the successful implementation of flipped classroom or blended learning. Students are also participating in online coding competitions through the

Institute's BuildIT online open coding platform to gain competitive coding / programming skills. Tutorial question banks are prepared for every course to enable critical thinking among the students.

File Description	Documents
Upload any additional information	[View File](#)
Link for additional Information	https://iare.ac.in/?q=pages/experiential-learning-exl

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

IARE being a digitally empowered institution, equipped with smart classrooms providing hundred percent multimedia experience to the students. Teachers use ICT to deliver classroom lectures, demonstrate and conduct laboratory experiments, and manage and administer courses and classes. During the lectures, softcopies of the books listed on the syllabus are used. In order to better understand a circuit or program, simulation software and compilers may be used in the classroom. Animations and visualizations are used to demonstrate the operation of a component, a circuit, or a process.

The institute uses its own cloud-based e-learning and learning management portal, AKANKSHA, which hosts 1141 courses with active participation from 398 faculty members and 4053 students. The video lectures, which are also available on the dedicated IARE YouTube channel, have received over 6.5K views, 317.2 hours of viewing time, and 7.5K subscribers. To enable teachers to create interactive e-contents, IARE has invested more than 40 lakhs in three dedicated ICT enabled studios on campus, complete with the necessary hardware and software to record, edit, and upload e-contents / videos to the portal.

ICT ENABLED TOOLS USED BY TEACHERS

1. **Learning Management Portal (Akanksha): https://lms.iare.ac.in/**
2. **Campus Management System (Samvidha): https://samvidha.iare.ac.in/**
3. **Open Coding Plot form (BulidIt): http://buildit.iare.ac.in/**
4. **IARE You Tube Chanel:**

https://www.youtube.com/channel/UCrN2YGajq0ITaokeOn2LEpQ
5. **Evaluation of Student Learning Outcomes (ESLO):**
   https://eslo.iare.ac.in/
6. **Online Testing Platform (eExamDesk):**
   https://eexamdesk.iare.ac.in/

File Description	Documents
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	https://www.iare.ac.in/?q=Information-and-Communications-Technology
Upload any additional information	View File

2.3.3 - Ratio of students to mentor for academic and other related issues

2.3.3.1 - Number of mentors

275

File Description	Documents
Upload year-wise number of students enrolled and full-time teachers on roll	View File
Circulars with regard to assigning mentors to mentees	View File

2.3.4 - Preparation and adherence to Academic Calendar and Teaching Plans by the institution

The Institute preparesand follows a well-planned academic calendar that includes the number of instructional days, the assessment plan, the start and end of the academic session, and the examination schedule. A minimum of 90 instructional days, or 16 weeks, are planned for each semester, excluding continuous assessments and examinations. Academic council approves the academic calendar, which is then posted on the institute's website. National commemorative days are also observed on the academic calendar.Every Department also publishes an activity calendar, which includes guest lectures, seminars, conferences, workshops, and lectures by visiting faculty, among other things. The instructional content delivery schedule will be published one week before the semester begins. Every semester, the Institute holds two Continuous Internal Assessment (CIA) Examinations.

The course allotment is done by the department head, and the

teaching plan - schedule of instruction for each course - is prepared in CMS Portal by individual course faculty in accordance with the department event calendar. The Academic Monitoring Committee oversees curriculum development and implementation.

The faculty will prepare a holistic course plan that includes course prerequisites, objectives, course outcomes, a teaching plan, an articulation matrix, and a mapping of course outcomes to program outcomes and will submit it for necessary reviews and approvals.The course full stack and the contents delivered are audited for effective teaching learning process. The audit is conducted at regular intervals with both internal and external experts.

File Description	Documents
Upload the Academic Calendar and Teaching Plans during the year	View File

2.4 - Teacher Profile and Quality

2.4.1 - Number of full-time teachers against sanctioned posts during the year

284

File Description	Documents
Year-wise full-time teachers and sanctioned posts for the year	View File
List of the faculty members authenticated by the Head of HEI	View File
Any additional information	No File Uploaded

2.4.2 - Number of full-time teachers with PhD/ D.M. / M.Ch. / D.N.B Super-Specialty / DSc / DLitt during the year

75

File Description	Documents
List of number of full-time teachers with PhD./ D.M. / M.Ch. / D.N.B Super-Specialty / D.Sc. / D.Litt. and number of full-time teachers for 5 years	View File
Any additional information	View File

2.4.3 - Total teaching experience of full-time teachers in the same institution: (Full-time teachers' total teaching experience in the current institution)

1244

File Description	Documents
List of teachers including their PAN, designation, Department and details of their experience	View File
Any additional information	No File Uploaded

2.5 - Evaluation Process and Reforms

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

8

File Description	Documents
List of Programmes and the date of last semester-end / year-end examinations and the date of declaration of result	View File
Any additional information	No File Uploaded

2.5.2 - Number of students' complaints/grievances against evaluation against the total number who appeared in the examinations during the year

164

File Description	Documents
Upload the number of complaints and total number of students who appeared for exams during the year	View File
Upload any additional information	No File Uploaded

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

Complete Examination Process starting from registration to declaration of results is totally automated and IT enabled. A specially designed software IARE e-Exam Desk is operational since

the Institute has become autonomous (2016 onwards). The following process of examination IT enabled:

1. Course Registration followed by Registering for Examination
2. Payment of Examination Fee
3. Generation of Admit Card
4. Schedule of Examination with Seating Arrangements
5. Automated question paper generating system
6. Coding / Decoding of Answer Scripts
7. Digitization of Answer Scripts
8. Online Evaluation / Digital Marking of Answer Scripts – Provision for Remote Access for external evaluation
9. Scrutiny of Answer Scripts
10. Results Declaration

An alternative assessment (10% weightage) is conducted through Tech Talk Videos and Concept Videos, where in specific research-oriented topics are given to the students by the course faculty which are published online in SAMVIDHA portal. The students will go through literature of the specific topic and prepare e-Contents and a 10 minutes video presentation which are uploaded in SAMVIDHA portal from their respective logins. The faculty will evaluate the uploaded materials and award marks by following a specific rubric.

The COs are automatically calculated through our web portal ESLO (Evaluation of Student Learning Outcomes). From course outcomes, program outcomes and program specific outcomes are also calculated.Other key reforms in our Examination Management System are as follows;

- Auditing of the question papers and the answer scripts
- Digitized answer scripts of both CIE and SEE are visible for students
- CO/PO/PSO attainment calculation

File Description	Documents
Upload any additional information	[View File]()
Paste link for additional Information	https://www.iare.ac.in/?q=pages/eexamdesk

2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme Outcomes and Course Outcomes for all Programmes offered by the institution are stated and displayed on the website and communicated to teachers and students

Outcome Based Education (OBE) has been implemented as part of IARE's curriculum development and teaching learning process. The Institute's well-defined Vision and Mission statements are used to derive the vision and mission statements of each program. All of the programs have stated their Program Educational Objectives (PEOs), which are in line with the programs' vision and mission. All of the courses have defined Course Outcomes using the Revised Blooms Taxonomy as a reference. All of the Outcomes incorporate faculty and alumni input while keeping current technology demand, job prospects, ethical and societal requirements in mind. The institute website lists all of the PEOs/POs/PSOs/COs and their accomplishments. They are also prominently displayed throughout the institute, ensuring effective dissemination among stakeholders.

OBE awareness and expected outcomes are discussed in student orientation programs, faculty meetings, alumni/parent meetings, and so on. Through an intensive induction program, newly hired faculty are thoroughly inducted into OBE. Every faculty member is given an OBE awareness quiz on a regular basis. An OBE booklet is uploaded to the institute website, where faculty, students, and other stack holders can obtain the necessary information for the concerned person. Action taken reports on course and program outcomes, as well as the continuous improvement process, are also made available to stakeholders via the Institute's website.

File Description	Documents
Upload COs for all courses (exemplars from the Glossary)	View File
Upload any additional information	No File Uploaded
Link for additional Information	https://www.iare.ac.in/NAAC/documents/c2/2.6.1-R18-COS.pdf

2.6.2 - Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution

The Institute has developed a systematic process for collecting and analyzing data needed to calculate PO/PSO/CO attainments.

The outcome attainment process is described below:

1. Course outcomes will be attained through direct and indirect methods with 80% and 20% weightages respectively.
2. Course direct assessment include marks obtained in two

Continuous Internal Examinations (Theory / Practical), Alternative Assessment Tool (AAT), and SEE.

3. Course indirect assessment includes feedback (course exit survey) of students on the framed questionnaires at the completion of course on the scale of 5.
4. POs/PSOs are also attained through direct and indirect assessment methods with 80% and 20% weightages respectively.
5. In direct assessment of POs/PSOs, the Course Outcome attainments are mapped to appropriate POs/PSOs through course - program articulation matrices in a weighted manner. All the courses of the Program are considered for POs/PSOs attainment. Weighted averages are used to calculate POs/PSOs as given in respective course descriptions.
6. Indirect Assessment of POs/PSOs is cumulated from program exit survey (10%), alumni survey (5%) and employer survey (5%) which are taken at scheduled intervals.

The target value of POs/PSOs, on the other hand, is fixed based on the mean weighted strengths of the courses from the program articulation matrix.The attainment of COs for all courses, along with the action taken report, and POs/PSOs attainment levels, along with actions for improvement, are displayed on the respective department webpages for all batches.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional Information	https://www.iare.ac.in/NAAC/documents/c2/2.6.2_course_attainment.pdf

2.6.3 - Pass Percentage of students

2.6.3.1 - Total number of final year students who passed in the examinations conducted by Institution

1141

File Description	Documents
Upload list of Programmes and number of students appear for and passed in the final year examinations	[View File](#)
Upload any additional information	**No File Uploaded**
Paste link for the annual report	https://www.iare.ac.in/NAAC/documents/c2/2.6.3_Pass_Percentage_Minutes.pdf

2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire). Results and details need to be provided as a weblink

https://www.iare.ac.in/sites/default/files/NAAC/student_satisfaction_survey_report_2020-2021.pdf

RESEARCH, INNOVATIONS AND EXTENSION

3.1 - Promotion of Research and Facilities

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

IARE has taken a quantum leap into Research and Development initiatives in recent years, constantly encouraging faculty and students for out-of- the-box thinking and generating new and revolutionary ideas to bring about societal change. IARE is devoted to enhancing knowledge through research across all academic disciplines. The departments of CSE, ECE, EEE and ME of the Institute are recognized as research centers under JNTUH, Hyderabad.

The R&D centre makes budget recommendations and offers a number of activities to enhance research culture. At the Institute, multidisciplinary/ interdisciplinary research and collaborative research are prioritized. The following research facilities are accessible for students, faculty, and research associates to use in order to foster research and innovation in high-potential areas.

Aside from these designated centres, the Institute has resources like Maker Space, TIIC, STSP, MSME-TBI, and Industry Supported Labs to help in its research.Plagiarism tools like Turnitin makes it easier for researchers to write high-quality papers.

As a result of the Institute's efforts to promote research culture, the institute has 14 funded research projects totalling Rs. 510.59 lakhs, 1012 publications in high impact factor and international repute journals, 752 collaborative research publications, 93 published / awarded patents, 28 technology transfers to industries, 15 commercialized IPRs, and about 120 undergraduate student publications to its credit. The institute's Webometric research data include 996 Scopus-indexed articles, 205 Web of Science-indexed publications, 50 publications in each of the Q1and Q2journals, an H-Index of 23, an i10 Index of 87, and a total citation count of 3274.

File Description	Documents
Upload the Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	[View File](#)
Provide URL of policy document on promotion of research uploaded on the website	https://iare.ac.in/sites/default/files/Policies/IARE_Research_Promotion_Policy.pdf
Any additional information	[View File](#)

3.1.2 - The institution provides seed money to its teachers for research

3.1.2.1 - Seed money provided by the institution to its teachers for research during the year (INR in lakhs)

9.00

File Description	Documents
Minutes of the relevant bodies of the institution regarding seed money	[View File](#)
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	[View File](#)
List of teachers receiving grant and details of grant received	[View File](#)
Any additional information	[View File](#)

3.1.3 - Number of teachers who were awarded national / international fellowship(s) for

advanced studies/research during the year

4

File Description	Documents
e-copies of the award letters of the teachers	View File
List of teachers and details of their international fellowship(s)	View File
Any additional information	No File Uploaded

3.2 - Resource Mobilization for Research

3.2.1 - Grants received from Government and Non-Governmental agencies for research projects, endowments, Chairs during the year (INR in Lakhs)

34.76

File Description	Documents
e-copies of the grant award letters for research projects sponsored by non-governmental agencies/organizations	View File
List of projects and grant details	View File
Any additional information	No File Uploaded

3.2.2 - Number of teachers having research projects during the year

8

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://www.iare.ac.in/?q=pages/research-projects
List of research projects during the year	View File

3.2.3 - Number of teachers recognised as research guides

08

File Description	Documents
Upload copies of the letter of the university recognizing teachers as research guides	View File
Institutional data in Prescribed format	View File

3.2.4 - Number of departments having research projects funded by Government and Non-Government agencies during the year

4

File Description	Documents
Supporting document from Funding Agencies	View File
Paste link to funding agencies' website	https://www.iare.ac.in/?q=pages/research-projects
Any additional information	No File Uploaded

3.3 - Innovation Ecosystem

3.3.1 - Institution has created an ecosystem for innovations and creation and transfer of knowledge supported by dedicated centres for research, entrepreneurship, community orientation, incubation, etc.

Compassion on Innovation is the goal and spirit of IARE. The institute ascertains the belief in the stakeholders through a vibrant eco-system for innovations, creation and transfer of knowledge.The Institute has created an eco-system for entrepreneurship by setting up entrepreneurship development cell for creation and transfer of knowledge. Additional inputs include regular class work by internal faculty, guest lectures, e-talks by entrepreneurs, idea generation workshops, and seminars. Through mentoring sessions, the Institute also connects incubates to industry leaders and management masters.

IARE established Technology Business Incubator (TBI) centre in the year 2019 with the support of Ministry of Micro, Small and Medium Enterprises (MSME) under A Scheme for Promotion of Innovation, Rural Industry & Entrepreneurship. The TBI centre is located in the premises of institute with a built-up area of 6414 sft.

As a community service initiative, the institute has begun to

direct its research toward sustainable development goals.

Under the DST funded project tilted Poverty Alleviation and Upliftment of Tribal Woman through Mechanized Manufacturing of Traditional Ornaments and House Hold Products, the Institute has created a common facility centre at Dundigal Thanda – 2 to train ST community women for trades of jewellery, bangles, embroidery, engraving on Utensils by laser engraving machines, etc. The Institute has also executed a community-oriented project titled "Socio-economic, sustainability & development in agriculture and water resources for rural schools through self-designed science and technology" funded by DST.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.iare.ac.in/?q=Technology Incubation Incubation Centre

3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

12

File Description	Documents
Report of the events	View File
List of workshops/seminars conducted during the year	View File
Any additional information	No File Uploaded

3.4 - Research Publications and Awards

3.4.1 - The Institution ensures implementation of its Code of Ethics for Research uploaded in the website through the following: Research Advisory Committee Ethics Committee Inclusion of Research Ethics in the research methodology course work Plagiarism check through authenticated software	A. All of the above

File Description	Documents
Code of Ethics for Research, Research Advisory Committee and Ethics Committee constitution and list of members of these committees, software used for plagiarism check	View File
Any additional information	View File

3.4.2 - Number of PhD candidates registered per teacher (as per the data given with regard to recognized PhD guides/ supervisors provided in Metric No. 3.2.3) during the year

3.4.2.1 - Number of PhD students registered during the year

15

File Description	Documents
URL to the research page on HEI website	https://www.iare.ac.in/?q=pages/research-supervisors
List of PhD scholars and details like name of the guide, title of thesis, and year of registration	View File
Any additional information	**No File Uploaded**

3.4.3 - Number of research papers per teacher in CARE Journals notified on UGC website during the year

66

File Description	Documents
List of research papers by title, author, department, and year of publication	View File
Any additional information	View File

3.4.4 - Number of books and chapters in edited volumes / books published per teacher during the year

68

File Description	Documents
Upload any additional information	[View File]()
Paste link for additional information	https://www.iare.ac.in/?q=basicpage/book-publications

3.4.5 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

3.4.5.1 - Total number of Citations in Scopus during the year

998

File Description	Documents
Any additional information	**No File Uploaded**
Bibliometrics of the publications during the year	[View File]()

3.4.6 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

3.4.6.1 - h-index of Scopus during the year

21

File Description	Documents
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	[View File]()
Any additional information	**No File Uploaded**

3.5 - Consultancy

3.5.1 - Revenue generated from consultancy and corporate training during the year (INR in lakhs)

7.28

File Description	Documents
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View File
List of consultants and revenue generated by them	View File
Any additional information	No File Uploaded

3.5.2 - Total amount spent on developing facilities, training teachers and clerical/project staff for undertaking consultancy during the year

68000

File Description	Documents
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View File
List of training programmes, teachers and staff trained for undertaking consultancy	No File Uploaded
List of facilities and staff available for undertaking consultancy	View File
Any additional information	No File Uploaded

3.6 - Extension Activities

3.6.1 - Extension activities carried out in the neighbourhood sensitising students to social issues for their holistic development, and the impact thereof during the year

Compassion for Community is one of the seven dimensions of IARE that make it a truly holistic learning environment. Mandatory value-added courses in major areas such as human values, gender sensitivity, professional ethics and environmental studies, energy from waste, and so on have been introduced as part of the students' holistic development. Periodically, guest lectures/workshops are organized for students by inviting experts from outside to raise awareness about social issues such as,

- **Plastic waste management**

- **Child sexual and drug abuse**
- **Drunk and drive**
- **Breast cancer and HIV awareness campaigns**
- **Road safety and traffic regulations etc.**

IARE has engaged in a variety of societal and community development and extension activities. The institution has a recognized NSS unit with active student members involved in social service activities.

Apart from such activities, a number of awareness programs, such as International White Cane Day, International Yoga Day, Education and Hygiene Drive, Awareness Program on Traffic Rules, Science Awareness Fair and Exhibition at MJPTBCW Residential Boys School, Awareness Program on National Needs for Rural India, HIV Awareness Program, Program on Human Values, Creating Awareness about the Effects of Plastics in Villages, Program on Developing Safety Driving Skills, have been organized. IARE students conduct cancer awareness programs, drunk driving prevention programs, child abuse prevention programs, nature awareness and science achievements programs, and road safety programs for the benefit of the neighborhood community.

File Description	Documents
Upload any additional information	**No File Uploaded**
Paste link for additional information	https://www.iare.ac.in/?q=extension-activities

3.6.2 - Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government-recognised bodies during the year

6

File Description	Documents
Number of awards for extension activities in during the year	View File
e-copy of the award letters	View File
Any additional information	**No File Uploaded**

3.6.3 - Number of extension and outreach programmes conducted by the institution through NSS/NCC/Red Cross/YRC, etc. during the year (including Government-initiated

programmes such as Swachh Bharat, AIDS Awareness, and Gender Sensitization and those organised in collaboration with industry, community and NGOs)

`24`

File Description	Documents
Reports of the events organized	View File
Any additional information	No File Uploaded

3.6.4 - Number of students participating in extension activities listed in 3.6.3 during the year

`744`

File Description	Documents
Reports of the events	View File
Any additional information	No File Uploaded

3.7 - Collaboration

3.7.1 - Number of collaborative activities during the year for research/ faculty exchange/ student exchange/ internship/ on-the-job training/ project work

`130`

File Description	Documents
Copies of documents highlighting collaboration	View File
Any additional information	No File Uploaded

3.7.2 - Number of functional MoUs with institutions of national and/or international importance, other universities, industries, corporate houses, etc. during the year (only functional MoUs with ongoing activities to be considered)

`22`

File Description	Documents
e-copies of the MoUs with institution/ industry/ corporate house	View File
Details of functional MoUs with institutions of national, international importance, other institutions etc. during the year	View File
Any additional information	No File Uploaded

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

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

IARE has developed cutting-edge modern infrastructure to meet the demands of a 21st-century technology-enabled teaching and learning eco system.

The Institute has cutting-edge infrastructure to support teaching-learning and research activities. The institute spans 17 acres and has a total built-up area of 3,65,700 square feet. With six academic buildings housing 67 smart classrooms, a central library, two ICT studio rooms, one media centre, one A/V centre, three flipped classrooms, four conference rooms, two seminar halls, one central board room, seven departmental board rooms, one auditorium, ten research laboratories, four industry supported laboratories, 94 academic laboratories, a science and technology start-up park, a technology innovation and incubation centre, an open-air amphitheatre, makerspace, and community facilitation center for women, and center for development of skill and employability. There is campus-wide networking with 1Gbps internet connectivity, Wi-Fi, and CCTV. All programs share common central computing facility, which include 300 computers and three engineering workshops. All classrooms have LED display panels for interactive teaching and multimedia experiences. Smart boards are also available in the flipped classrooms, conference rooms, and seminar halls.

1800 desktop computers, 9 workstation servers on campus and 6 cloud-based AWS servers, Shophos XG 310 Firewall, 103 printers, 150 webcams, 26 scanners, and 250 headphones are among the computing facilityavailable. 533 fibre access devices, 188 data switches, 62 Wi-Fi access points, and 256 KVA UPS power backup are

available as support infrastructure. Students can access a 1000 mbps leased line with high-speed internet.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://www.iare.ac.in/NAAC/documents/c4/4.1.1 Institute Infrastructure facilities.pdf

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

To ensure students' holistic development, the IARE curriculum is integrated with a variety of co-curricular and extra-curricular activities. The Institute has the latestfacilities for student activities, including cultural activities, indoor games, and a yoga center.Several cultural events are organized, including"Spandana," the college cultural fest held as part of the institute's annual day celebrations. Every year, the college hosts a cultural festival. In addition, on the traditional day of Samkruthi fest, the institute organizes flash mobs by students. It is followed by light music by the famous music troupe - "confetti" to delight the students.

A Yoga Centre of 1500 sft. area is provided for regular practice of Yoga and Meditation under the guidance of trained Yoga Instructor.

Indoor games such as badminton, table tennis, chess, and carroms are accommodated in a 400 sqm buildup area. Outdoor game facilities include Volleyball / Throwball, Basketball, Football, Kabaddi, and separate Jumping and throwing sectors.

The institute has a 120-square-meter areaGymnasium with a multi-gym and free weights that includes a treadmill, stretching machines, suspension trainer, stationary bike, abdominal bench, cross trainer, and various weight training equipment.

For large-scale events, the Institute has one open-air amphitheater that can seat 4000 students and one air-conditioned auditorium that can seat 756 capacity.

File Description	Documents
Geotagged pictures	[View File](#)
Upload any additional information	**No File Uploaded**
Paste link for additional information	https://www.youtube.com/watch?v=kmt85OizBQY

4.1.3 - Number of classrooms and seminar halls with ICT-enabled facilities

79

File Description	Documents
Upload any additional information	[View File](#)
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	[View File](#)

4.1.4 - Expenditure for infrastructure augmentation, excluding salary, during the year (INR in Lakhs)

41703582

File Description	Documents
Upload audited utilization statements	[View File](#)
Details of Expenditure, excluding salary, during the years	[View File](#)
Any additional information	[View File](#)

4.2 - Library as a Learning Resource

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

The institute has a duplex library that is large enough to hold over 7998 titles, 56862 volumes of books, 5000+ eBooks, and 210 print journals. The first-floor houses Circulation Books, News Papers, and Back Volumes of Periodicals, while the second-floor houses Reference Books, Current Periodicals, and so on. It has a modern infrastructure, a reading capacity of 500 students, discussion rooms, and group reading options. It has access to over

228 online journals from IEEE, ASME, and ASCE. Through DELNET, the Institute has subscribed to World Library for eBooks and N-List e-resources. The library is fully computerized and equipped with a bar-coding system.

Since 2010, IARE's central library has been completely automated with NewGenLib Helium 3.2 software, an Integrated Library Management System. For uninterrupted service, the NGL server is hosted on the IARE AWS cloud. Web-centric applications have been using the On-line Public Access Catalogue (OPAC) to access the Central Library.

All the library resources can be accessed both in offline and online mode. Various sources are made available for access of library resources more effectively through NGL Server, Akanksha LMS Portal, IARE YouTube Channel Access, WorldLibrary, N-List, IEEE / ASCE / ASME and BuildIT platform. All the library usage statistics are captured through web enabled IP traces / dashboards in addition to access card usage. A/V Centre for watching the videos are also available for using multimedia resources. Reprographic facilities with scanners and printers are placed in library for student's use.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.iare.ac.in/NAAC/documents/c4/4.2.1_AY2020-21.pdf

4.2.2 - Institution has access to the following: e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access to e-resources	A. Any 4 or more of the above

File Description	Documents
Details of subscriptions like e-journals, e-books, e-ShodhSindhu, Shodhganga membership	View File
Upload any additional information	View File

4.2.3 - Expenditure on purchase of books/ e-books and subscription to journals/e-journals

during the year (INR in lakhs)

`2989049`

File Description	Documents
Audited statements of accounts	[View File](#)
Any additional information	[View File](#)
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	[View File](#)

4.2.4 - Usage of library by teachers and students (footfalls and login data for online access)

4.2.4.1 - Number of teachers and students using the library per day during the year

`4780`

File Description	Documents
Upload details of library usage by teachers and students	[View File](#)
Any additional information	**No File Uploaded**

4.3 - IT Infrastructure

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

`IARE has provided wi-fi access for both short and long distances. IT infrastructure has been widely distributed across 6 blocks, connecting them with a very high-speed robust fibre optic network with 12000+ IP enabled devices using 1000 Mbps of internet bandwidth available from two major Internet service providers, GTPL-300 Mbps and Dvois-700Mbps.`

`The Sophos APX320-802.11ac Wave 2 Wireless Access Point is being used by IARE to provide an easy, effective way to manage and secure wireless mesh with the following features.`

- `Strong in-house firewall and IDS using PFSense.`
- `Connected all 1800+ Computers in the institute under single high-speed OFC wired LAN connectivity that provides high-availability, flexibility, scalability and manageability of separate channels for data stream, CC camera stream, conferencing etc.`

The Internet Gateway comprises of a web server, Symantec Protection Suite Enterprise Edition 14.0, CISCO switch and other networking components utilized for an effective LAN. Students and staff can connect to the 'IARE Wi-Fi' of 60 Mbps top speed per user from the list of wireless networks presented on their devices with user credentials. 59 indoor Wi-Fi access points and 04 Wi-fi access points blazing-fast connectivity for medium-density outdoor deployments are positioned across the campus.

To ensure 24X7 seamless IT enabled services, IARE has hosted its utility software like BuildIT Server, Samvidha Server, Akanaksha Server, eExamDesk, ESLO Server, Website and Domain Hosting, NGL Server. Whereas, the commercial educational software like MATLAB, Ansys, etc. are hosted on rack servers for institute wide access.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://iare.ac.in/sites/default/files/Policies/IARE_IT_Policy.pdf

4.3.2 - Student - Computer ratio

Number of Students	Number of Computers
4844	1855

File Description	Documents
Upload any additional information	[View File](#)

4.3.3 - Bandwidth of internet connection in the Institution and the number of students on campus	A. ?50 Mbps

File Description	Documents
Details of bandwidth available in the Institution	[View File](#)
Upload any additional information	No File Uploaded

4.3.4 - Institution has facilities for e-content development: Facilities available	A. All four of the above

for e-content development Media Centre Audio-Visual Centre Lecture Capturing System (LCS) Mixing equipments and software for editing

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.iare.ac.in/NAAC/documents/c4/4.3.4_Institute_E-content_Facilities.pdf
List of facilities for e-content development (Data Template)	View File

4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of physical and academic support facilities, excluding salary component, during the year (INR in lakhs)

260.92

File Description	Documents
Audited statements of accounts	View File
Upload any additional information	View File

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

The below mentioned procedures are adopted for utilizing and maintaining various infrastructure facilities:

- **Periodic maintenance of IT infrastructure in the classrooms by ITIMS staff**
- **Maintenance of laboratories by dedicated Technicians and Lab Assistants guided by Laboratory In charge**
- **Hassle free procedure for procurement of laboratory consumables to keep laboratories operational**
- **Systematic procedure for raising complaints, repairing mechanism including servicing and replacement**
- **Network Maintenance through In-house engineers of ITIMS office**
- **Continuous Website Updation and Maintenance by a dedicated Programmer**
- **All the Desktops and Servers are maintained through AMC**

- **Continuous surveillance monitoring of CCTV footages with 15 days backup facility**
- **Full time qualified AC Mechanics to maintain AC units**

- **Electric maintenance through full time regular electrical supervisors**
- **Maintenance of UPS / DGs / Lifts through AMCs / Extended Warranty**
- **Regular checks for fire extinguishers through established MoUs**
- **Power supply capacity is about 11 KVA HT supply, with four gensets capacity of 180 KVA and 125 of two and 62 KVA for uninterrupted power supply. As an initiative of green technologies, 160 KW of solar panels is provided to utilize the electrical supply effectively and efficiently.**
- **General record keeping and audits of all the equipment in the laboratory is done at department level.**
- **The equipment with major repair, are repaired by outside agency. After receiving quotation for maintenance and repair charges, necessary approval from college authorities and management is taken for sending to repair.**

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	[https://www.iare.ac.in/NAAC/documents/c4/4.4.2-Procedures_and_policies_for_maintaining_and_utilizing_physical_academic_and_support_facilities.pdf](#)

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefitted by scholarships and freeships provided by the Government during the year

2436

File Description	Documents
Upload self-attested letters with the list of students receiving scholarships	View File
Upload any additional information	View File

5.1.2 - Number of students benefitted by scholarships and freeships provided by the institution and non-government agencies during the year

512

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

5.1.3 - The following Capacity Development and Skill Enhancement activities are organised for improving students' capabilities Soft Skills Language and Communication Skills Life Skills (Yoga, Physical fitness, Health and Hygiene) Awareness of Trends in Technology	**A. All of the above**

File Description	Documents
Link to Institutional website	https://www.iare.ac.in/NAAC/documents/c5/5.1.3-Development_Skill.pdf
Details of capability development and schemes	View File
Any additional information	**No File Uploaded**

5.1.4 - Number of students benefitted from guidance/coaching for competitive examinations and career counselling offered by the institution during the year

3657

File Description	Documents
Any additional information	View File
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The institution adopts the following mechanism for redressal of students' grievances, including sexual harassment and ragging: Implementation of guidelines of statutory/regulatory bodies Creating awareness and implementation of policies with zero tolerance Mechanism for submission of online/offline students' grievances Timely redressal of grievances through appropriate committees	**A. All of the above**

File Description	Documents
Minutes of the meetings of students' grievance redressal committee, prevention of sexual harassment committee and Anti-ragging committee	View File
Details of student grievances including sexual harassment and ragging cases	View File
Upload any additional information	**No File Uploaded**

5.2 - Student Progression

5.2.1 - Number of outgoing students who got placement during the year

588

File Description	Documents
Self-attested list of students placed	View File
Upload any additional information	View File

5.2.2 - Number of outgoing students progressing to higher education

115

File Description	Documents
Upload supporting data for students/alumni	**No File Uploaded**
Details of students who went for higher education	[View File](#)
Any additional information	**No File Uploaded**

5.2.3 - Number of students qualifying in state/ national/ international level examinations during the year

5.2.3.1 - Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year

115

File Description	Documents
Upload supporting data for students/alumni	[View File](#)
Any additional information	**No File Uploaded**

5.3 - Student Participation and Activities

5.3.1 - Number of awards/medals for outstanding performance in sports and/or cultural activities at inter-university / state /national / international events (award for a team event should be counted as one) during the year

2

File Description	Documents
e-copies of award letters and certificates	[View File](#)
Any additional information	[View File](#)

5.3.2 - Presence of an active Student Council and representation of students in academic and administrative bodies/committees of the institution

IARE has an active student council that is run by students with the goal of improving the learning process at the institute. The council meets once a semester with the aim of boosting students' overall performance. Student council is made up of all class representatives. Every year, the head of the departments selects

class representatives based on merit. The Student Council's goals are to serve as a liaison between students and management, to address student issues and concerns, to provide students with opportunities to develop their leadership skills, and to contribute positively to IARE policies, strategies, and academic regulations.

IARE also encourages student representatives to participate in various decision-making, academic, and administrative committees, which allows them to gain a better academic environment. Student opinions and suggestions are taken into account when making decisions based on students' perceptions. Many institute level committees, such as Discipline, Anti-Ragging, Event Planning and Management, Institute Social Responsibility, Public Relations and Brand Building, Health, Safety and Wellbeing, Student Affairs, Students Grievances Redressal, Canteen Coordination, Career and Employability Skills, Placement and Training, and so on, have student representatives.

IARE hosts many professional society chapters like IEEE, ISTE, CSI, ACM, IETE, SAE, ICI, IEI, IMechE, and HMA encouraging students to participate in all their activities. Each professional society student chapters have their own student representation and office bearers as per their guidelines. These societies regularly conduct co-curricular activities including expert lectures, workshops, seminars, Industrial visits, etc. to assist students for updating their technical knowledge.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://www.iare.ac.in/?q=pages/student-council

5.3.3 - Number of sports and cultural events / competitions organised by the institution

14

File Description	Documents
Report of the event	View File
List of sports and cultural events / competitions organised per year	View File
Upload any additional information	No File Uploaded

5.4 - Alumni Engagement

5.4.1 - The Alumni Association and its Chapters (registered and functional) contribute significantly to the development of the institution through financial and other support services

The Alumni Association of IARE started functioning in the year 2005 and closely works with institute. This provides dedicated support in all activities of IARE. It has contributed significantly through financial and non-financial means during the last five years:

- Guest lectures on various course topics and providing expert guidance to the students
- Some of our alumni are industrialists they share their knowledge and expertise
- Helping to organize educational and industrial visits
- Motivational lectures by distinguished alumni
- Providing information about job opportunities

IARE conducts Alumni Meet every year on 2nd Saturday of December. The event witnesses the alumni of IARE meeting at one place, sharing their experiences. The Alumni Meet is organized by the management, principal and staff. More than 200 alumni attend the event every year to share their experiences with the juniors. An active alumni engagement portal connecting more than 8000 alumni members is operational.Apart from the Institute portal, alumni are also connected through various social media networking platforms like Facebook, LinkedIn, and Twitter.

The alumni association namely Institute of Aeronautical Engineering – Alumni Association with a society registration number 1741 of 2018 is registered under Telangana Societies Registration Act 2001. The association has its own objectives, bylaws and management committee. All the office barrers of institute alumni association meet regularly and conduct activities to meet its objectives. The alumni association is also the forefront to contribute to its alma mater based on the need.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	https://www.iare.ac.in/?q=node/3088

5.4.2 - Alumni's financial contribution during the year	C. 5 Lakhs - 10 Lakhs

File Description	Documents
Upload any additional information	View File

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

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

The institute's vision is to develop professionally competent and socially responsible engineers capable of working across cultures and meeting global standards ethically. The institute's mission is to provide students with a comprehensive and exceptional education that prepares them to excel in their profession, guided by a vibrant intellectual community, and capable of facing the technically complex world with creative leadership qualities. Furthermore, the institute's mission is to contribute to the generation of new knowledge through innovative research that encourages entrepreneurship and economic development for the benefit of a wide spreadcommunity.

The institute is governed by the Governing Body (GB) which includes the members of the management, an industrialist, and nominees from affiliating university, UGC, and State Government. The governing body also nominate two senior academicians from the reputed institutions. Two senior faculty nominated by the Governing Council are also the members of the Governing Body. Principal of IARE is the ex-officio of the Governing Body.

The academic Council has been constituted with the Principal as the Chairman, three members from the University, four experts from outside the college representing such areas as Industry, Commerce, Law, Education, Medicine, Engineering, Sciences etc. nominated by Governing Body, all Heads of Departments, Four Senior Faculty of

the College and a Member Secretary. The academic Council is the principal academic body and it is responsible for laying down, regulating, and maintaining the standards of instruction, education and examination within the Institute.

File Description	Documents
Upload any additional information	[View File]()
Paste link for additional Information	https://www.iare.ac.in/?q=pages/leadership-and-administrative-duties

6.1.2 - Effective leadership is reflected in various institutional practices such as decentralization and participative management

IARE pursues effective leadership through decentralized and participatory management that includes all stakeholders. The Principal is the institution's head, assisted by Department Heads, Deans, the Controller of Examinations, the Librarian, and the Administrative Officer. The delegation of power is carried out in accordance with the organogram, which is available on the institute's website.

The decentralization and participative management is reflected in all the academic and administrative activities of the Institute. The Institute has identified the key functional areas and identified the senior faculty members as deans to handle such responsibilities as a step towards decentralized and participative management. The heads of the department, Council of Deans and Student Council are responsible for all the academic and support activities of the Institute. In addition to heads of the department.Deans of the institution are authorized day-to-day operations in their respective roles. Further, Heads of the Departments are responsible for the academic administration of their respective programs.

The College Academic Curriculum Planning Process case study is an example of decentralization and participative management in the institution. The courses are designed using an effective curriculum planning and implementation system that is managed by each department's board of studies. Each program's curriculum is developed in collaboration with all stakeholders, and includes courses in emerging areas to address industry academia gaps. Also, due emphasis is given for student inputs towards increasing employability and practical skills of every student.The

examination department is decentralized.

File Description	Documents
Upload strategic plan and deployment documents on the website	View File
Upload any additional information	View File
Paste link for additional Information	https://www.iare.ac.in/?q=pages/perspective-strategic-plan

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ Perspective plan has been clearly articulated and implemented

IARE firmly believesthat its strategic planning, continuous improvement efforts, and consistentaccreditation successes will help it toachieve its vision of being the leading and best institution in the country. During the "Growth Phase," the IARE leadership team created the first strategic plan (2011-2016) to strengthen the infrastructure. In the second decade, the IARE leadership team created a second strategic plan (2017-2022) during the "Development Phase" that focused on IARE's vision and "Make In India" campaign, taking the lead as a higher education institution, and having a greater impact on society, with its ambitious themes to become "LEADER." IARE adopts new and emerging technologies to provide a richer educational experience by following a strategy based on the SWOC analysis, which includes innovative social learning spaces, an online learning environment, and the use of digital technologies on-campus, next-generation computer laboratories, and state-of-the-art research facilities. The Institute has created a strategic plan based on six defined strategies, which can be found on the Institute's website.

File Description	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	https://www.iare.ac.in/sites/default/files/IARE_Progress_Report_of_Prespective_plan_2017-2022.pdf
Upload any additional information	**No File Uploaded**

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

The administrative structure of IARE has been defined in order to achieve operational effectiveness and efficiency. The Governing Council (GC) is the Institute's highest body, comprisesof management representatives. The following are the Institute's various decision-making bodies, each with its own functional area.

- Governing Body:The members of the body take major decisions like consideration and approval of strategic plans to accomplish the goals set by the institution.
- Academic council: The policiesare further implemented by the heads of the departments and faculty for the efficient functioning of the institution.
- Finance Committee: The finance committee examines accounts, expenditures, proposals that require new expenditures and submits to the Board of Governors for approval of the governing body.
- Board of Studies: Every department of the institution has a board of studies and conduct meetings two years once to review the syllabus.

The Institute has deployed an organogram with defined roles and responsibilities to implement decisions made at various levels. The organisational chart also includesthe delegation of powers for various administrative positions such as principal, controller of examinations, finance officers, department heads, deans, and administrative officers.

The appointments for all the teaching faculty of IARE strictly as per AICTE norms, whereas non-teaching staff are governed by state government norms. Administrative HR Policy, Faculty Performance Analysis, Code of Ethics for Staff and Students, and Grievance Redressal Policy are defined, published and functional. The employees are governed by the approved service rules of the Institute which is also published on the Institute website.

File Description	Documents
Paste link to Organogram on the institution webpage	https://www.iare.ac.in/?q=pages/organization-chart
Upload any additional information	View File
Paste link for additional Information	https://www.iare.ac.in/?q=pages/leadership-and-administrative-duties

6.2.3 - Implementation of e-governance in areas of operation: Administration Finance and Accounts Student Admission and Support Examination	A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning) Documen	View File
Screen shots of user interfaces	View File
Details of implementation of e-governance in areas of operation	View File
Any additional information	No File Uploaded

6.3 - Faculty Empowerment Strategies

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

Welfare Measures cum career development schemes for Teaching Faculty:

- **Sponsorship to attend the conferences, faculty development programs, workshops and seminars by providing financial aid for registration and travel**
- **Financial support in filing, consultation, and commercialization of patents**
- **Financial aid for conducting and attending Skill-Development programs**
- **Incentives for publishing articles in journals, books, book chapters, and conference papers to encourage the research ecosystem at the Institute**
- **Financial support for membership in professional bodies like IEEE, IE(I), CSI, ISTE, ACM, IETE, ASME, SAE, etc.**

- **Financial assistance for Ph.D. enrollment**
- **Professional Development Allowance for faculty who supervisePhD students**
- **Encouraging employees to pursue higher education on a full-time or part-time basis through academic leave**
- **Seed grant up to 10 Lacs to support R&D activities, IPR, product development, and consultancy work**
- **Supporting International collaborations with travel grants for International-Exchange programs and visiting eminent universities across the globe**
- **Sponsoring for competency building visits (both at national and international level)**
- **Opportunities for international exposure as per norms (MoUs with foreign universities)**
- **Incentives for e-content development as part of ICT initiative of the Institute**

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional information	https://www.iare.ac.in/NAAC/documents/c6/6.3.1_Welfare_Measures_Teaching.pdf

6.3.2 - Number of teachers provided with financial support to attend conferences / workshops and towards payment of membership fee of professional bodies during the year

116

File Description	Documents
Upload any additional information	**No File Uploaded**
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	[View File](#)

6.3.3 - Number of professional development / administrative training programmes organized by the Institution for its teaching and non-teaching staff during the year

14

File Description	Documents
Reports of the Human Resource Development Centres (UGC HRDC/ASC or other relevant centres)	View File
Upload any additional information	View File

6.3.4 - Number of teachers who have undergone online/ face-to-face Faculty Development Programmes during the year: (Professional Development Programmes, Orientation / Induction Programmes, Refresher Courses, Short-Term Course, etc.)

267

File Description	Documents
Summary of the IQAC report	View File
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View File
Upload any additional information	No File Uploaded

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly

The Institute's finance committee examines the accounts, the progress of expenditure, and all new projects involving new expenditure in light of provisions made. The committee also reviews the Institute's annual statement of accounts and financial estimates, which are prepared by the Finance and Accounts Officer and submitted to the Board of Governance (BOG) for action. It recommends to BOG the total recurring and non-recurring expenditure limits for the year based on Institute income and resources, including loan proposals for productive work. It also takes the necessary steps to have the Institute's accounts audited by BOG-appointed auditors. IARE keeps its financial transactions transparent. Institute has well established financial audit system comprising regular internal audit and mandatory external audit conducted by finance committee approved by the governing body and charted accountant respectively.

Internal financial audit: Finance committee of the institute ensures effective budget utilization and monitors the financial transactions. The outcomes of the audit will be discussed in

quarterly financial committee meetings and any finding of the audit will be addressed during this meeting. The internal audit helps the institute for the optimal allocation and utilization of the budget, confirming the compliance with legal and regulatory requirements. The internal audits will help the departments and other offices for effective utilization of budget.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.iare.ac.in/sites/default/files/Audit/Audit_Financial_Report_2020-2021.pdf

6.4.2 - Funds / Grants received from non-government bodies, individuals, and philanthropists during the year (not covered in Criterion III and V) (INR in lakhs)

1.45

File Description	Documents
Annual statements of accounts	View File
Details of funds / grants received from non-government bodies, individuals, philanthropists during the year	View File
Any additional information	No File Uploaded

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

The institution is a centrally managed non-profit organization with honorary governing council members who ensure that all income generated is used to further the institution's growth. IARE is a self-funded private institute that receives funds for infrastructure development from its sponsoring body, Maruti Education Society. The institute's resource mobilization policy focuses on achieving the institution's goals while maintaining accountability and transparency. Management coordinates and monitors the best use of the funds. Tuition fees collected from students are the institute's primary source of income. The tuition fee collected by the institute is regulated by Telangana Admission and Fee Regulatory Committee Constituted by Govt. of Telangana vide G.O.RT.No.160, HE Dept., dt:22.07.2015. Whereas the other funds to build research and innovation ecosystem are mobilized

through sponsored projects from agencies like DST, DRDO, AICTE, UGC, etc. Even the funds received from Industries, philanthropists, alumni and other agencies are utilized for various academic activities at the Institute. Acceptance of funds from outside agencies shall be encouraged without compromising the academic interests of the institute.

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional Information	https://www.iare.ac.in/sites/default/files /Policies/Resource_Mobilization_and_Optimu m_Utilization_of_Resources_Policy.pdf

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing quality assurance strategies and processes visible in terms of incremental improvements made during the preceding year with regard to quality (in case of the First Cycle): Incremental improvements made during the preceding year with regard to quality and post-accreditation quality initiatives (Second and subsequent cycles)

IQAC was established to review and develop a system of conscious, regular, and catalytic action to improve the teaching learning process, evaluation procedure, forstudentsas well asfaculty quality improvement. The IQAC conducts internal audits of the Institute, faculty, and staff members on a regular basis to ensure continuous improvement.

Practice 1 - Career and Employability Skill: The Careers and Employability Skills Training (CEST)is there to create a healthy environment by engaging Industry and Academia resources combined in skill building programs (SkillUP and SkillBridge).The outcomes of this practice has improved the placement statistics as tabulated below since last accreditation. Placements has been increased from 2500 to 4538 and average salary from 3.2 lacs to 6.5 lacs and median salary is from 2.5 lacs to 5.5 lacs.

Practice 2 - Quality of Research publications and Patents: Research and Development (R&D)has led to a quantum jump with respect to quality research. The performance indicators since last accreditation is tabulated below.

S. No

Activity	Cycle 1	Cycle 2
1 Quality Publications(Q1)	17	50
2 Publicationsin Scopus	191	996
3 Patents(Published)	07	137
4 R&D Grants Received	39.5 Lacs	891.66 Lacs
5 Books and Book Chapters Published	04	55

6

Citations

46

3274

7

h-Index of the Institute

06

23

Because of various quality initiatives by IQAC of IARE it has maintained its position in various national level ranking frameworks such as NBA, NIRF and ARIIA.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.iare.ac.in/NAAC/documents/c6/6.5.1_IQAC_Strategies.pdf

6.5.2 - The institution reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through its IQAC as per norms

The IQAC committee periodically reviews teaching learning process and other quality parameters of institute and suggest the necessary reforms.

- For each course, the course coordinator prepares course full stack material. It includes course descriptor, lecture notes, lectures wise PPT and Early Learning Readiness Videos (ELRV) produced in ICT studio of the institution. The definitions and terminology for each course are provided to articulate basic knowledge that they have learned in the course.
- The research based and product-based learning approach is used for imparting effective 21st century capabilities for promoting critical thinking as well as problem-solving,

- interpersonal communication, leadership and teamwork, innovation, and creativity.
- The tutorial question banks for each course taught are given to the students.
- Technology assisted TTCV (Tech Talk and Concept Video) is given to the students for improvement of communication skills and presentation skills, especially speaking skills.
- Provision for full semester internship (FSI)
- Follows the Bloom's Taxonomy and emphasis is laid on cognitive learning.
- Peer-to-peer learning by using flipped class rooms.

Experiential learning is introduced since 2020 as a part of curriculum for all the programs to provide the opportunityand concrete experience through a variety of carefully designed projects-based, problem-based learning experiences, laboratory experiments and other activities. Center for Learning and Educational Technologies (CLET) is established to design and teach FIVE ExL power skills courses, to shape the student's future which include ExL -Academic Success, ExL -Prototype/Design Building, ExL -Fabrication/Model Development, ExL -Project Based and Research Based Learning.

File Description	Documents
Upload any additional information	[View File]()
Paste link for additional information	https://www.iare.ac.in/?q=pages/teaching-learning-process

6.5.3 - Quality assurance initiatives of the institution include Regular meeting of the IQAC Feedback collected, analysed and used for improvement of the institution Collaborative quality initiatives with other institution(s) Participation in NIRF Any other quality audit recognized by state, national or international agencies (such as ISO Certification)	A. Any 4 or all of the above

File Description	Documents
Paste the web link of annual reports of the Institution	https://www.iare.ac.in/?q=pages/annual-reports
Upload e-copies of accreditations and certification	View File
Upload details of quality assurance initiatives of the institution	View File
Upload any additional information	View File

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

IARE has around 42% female faculty and 32% female students. As part of the curriculum, courses on Gender sensitivity, Essence of Indian Traditional Knowledge, Constitution of India, Ethics & Human Values, etc. address issues related to gender equity. The institution promotes gender sensitization through co-curricular and extracurricular activities like workshops, seminars, guest lectures, street plays, poster exhibitions, counselling etc. Further, awareness programs like importance of human rights, rights of women in domestic problems, cyber security, etc. related to the safety and security of women employees and students are conducted periodically. Women faculty has given equal opportunity in all academic and administrative roles, such as CoE, deans, heads of the departments and conveners of various committees. Even the placement records of the institute reflect approximately 50% placements share to female students. Every year IARE celebrates International Women's Day.

Exclusive infrastructural facilities for women:

- Separate Gymnasium for female students
- Common room for female students in all academic blocks
- Exclusive ladies' hostel
- Special sports promotion programs
- A daycare center
- Sanitary Napkin Vending Machine

Safety and security measures for women at the Institute:

- **Special transportation, during night hours, for female students to engage in various activities like studying in library, attending group activities and extracurricular & co-curricular activities**
- **The entire campus is covered with CCTV cameras**
- **Women security guards at campus, especially in night hours, women security guards**

Medical and counselling services for women students:

- **Availability of lady doctor**
- **A gynecologist visits the campus every week**
- **Exclusive professional counsellors for female students**

File Description	Documents
Upload any additional information	[View File](#)
Paste link for additional Information	https://www.iare.ac.in/sites/default/files/Policies/GENDER_EQUALITY_AND_EQUITY_POLICY.pdf

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation: Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/ power-efficient equipment	**A. Any 4 or All of the above**

File Description	Documents
Geotagged Photographs	[View File](#)
Any other relevant information	[View File](#)

7.1.3 - Describe the facilities in the institution for the management of the following types of degradable and non-degradable waste (within a maximum of 200 words)

The institute's waste management & recycling policy supports the universal goal to reduce the number of wastes entering the waste stream.

Solid Waste management:

Solid waste is collected using coloured bins i.e., Blue for dry waste, Green for wet waste, and Red for e-waste collection. Dry

waste includes dry leaves, paper, cardboard, glass, tin cans, etc. Wet waste include food waste generated in canteen and other places inside the campus which are segregated, composted, and disposed to biogas generation plant located near canteen. The biogas generation plant is of capacity of 2cubic meter gas production per day which is equivalent to 0.8 to 1 kg of LPG. The collected plastic is shredded using AVANTI BS 200P machine is sent for recycling.

Liquid Waste Management:

Waste water generated from canteen and toilets is segregated and treated in STPwith capacity of 30,000Lts/day.The treated water is reused for flushing and gardening purpose in the campus. The sludge settled in the STPs is cleaned once in a week and composted. The compost is also used as manure for the gardens.Rain water recycling mechanism is adopted.

E-Waste Management:

E-wastes are regularly collected from source points, are stored in an e-waste storage area. Institute has MoU with M/s Ramky Environ Engineersfor e-waste management. E-waste generatedis collected regularly anddispatched through authorized vendor, on a monthly basis for recycling.

IARE adheres to and practices a sustainable and healthy waste management system is aimed at making the campus green and eco-friendly.

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

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus	A. Any 4 or all of the above

File Description	Documents
Geotagged photographs / videos of the facilities	View File
Any other relevant information	View File

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows: 1. Restricted entry of automobiles 2. Use of bicycles/ Battery-powered vehicles 3. Pedestrian-friendly pathways 4. Ban on use of plastic 5. Landscaping	A. Any 4 or All of the above

File Description	Documents
Geotagged photos / videos of the facilities	View File
Various policy documents / decisions circulated for implementation	View File
Any other relevant documents	No File Uploaded

7.1.6 - Quality audits on environment and energy undertaken by the institution

7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following: 1. Green audit 2. Energy audit 3. Environment audit 4. Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities	A. Any 4 or all of the above

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	View File
Certification by the auditing agency	View File
Certificates of the awards received	No File Uploaded
Any other relevant information	No File Uploaded

7.1.7 - The Institution has a disabled-friendly and barrier-free environment: Ramps/lifts for easy access to classrooms and centres Disabled-friendly washrooms Signage including tactile path lights, display boards and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.	A. Any 4 or all of the above

File Description	Documents
Geotagged photographs / videos of facilities	View File
Policy documents and brochures on the support to be provided	View File
Details of the software procured for providing assistance	View File
Any other relevant information	No File Uploaded

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words).

IARE provides an inclusive environment with diversity in terms of culture, region, linguistic, communal, socioeconomic and other aspects. While enjoying the wide cultural diversity among its students and faculty, IARE has been successfully maintaining peace and harmony in all these years without any single episode of intolerance leading to campus unrest.

Efforts to handle Cultural diversity:

IARE accommodates the culturally diversified students by encouraging the exchange of cross-cultural ideas and celebration of the festivals of different culture.

Efforts to handle regional diversity:

Apart from various districts of Telangana, the institute houses students from the other states of India. IARE every year organizes "SAMSKRUTHI", traditional day that showcase of cultures around the nation.

Efforts to handle Linguistic and communal diversity:

English is used as a medium of teaching in all the classrooms to bridge the gap between the region-specific teaching and the expectations of the students and faculty of the other states.

Efforts to handle Socioeconomic diversity

To overcome the socioeconomic barriers, the institute has facilitated the students to receive scholarships and awards from government and non-government organizations. Around 50% students every year are benefited by fee-reimbursement scheme of Telangana government.

- **Bathukamma is a colorful and vibrant festival of Telangana, celebrated by women, as a symbol of Telangana's cultural identity.**
- **Ayudha Pooja-Navaratri festival, traditionally celebrated every year.**
- **The EBSB club of IARE conducts various activities that promote the culture, traditions of the country.**

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

7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:

The Institute has incorporated courses / modules on the

constitution of India and civil responsibilities in many of its programs. Co-curricular activities are also organized to sensitize students and staff to their citizenship roles. The values are inculcated through courses in the curriculum, namely Value Education, Yoga & Values for Holistic Development, Universal Human Values: Understanding Harmony and Professional Ethics & Human values. In addition, Yoga and meditation club conducts regular programs to make our students to understand the value of being humane. Through various student clubs' various programs are organized to make the students realize their rights, duties and responsibilities.

The various programs organized are:

- Environmental awareness programs
- Health awareness programs
- Vigilance Awareness Week
- Village adoption programs
- Harithaharam
- Blood donation camps
- Model United Nation
- Slum Development and up-gradation process

Through Career Development Centre, the achievers in various fields are invited to provide a motivational talk and they have shared their experience. These series of lectures have made students to be positive and to have a responsibility to revert back to the society at their later stages of life.

File Description	Documents
Details of activities that inculcate values necessary to transform students into responsible citizens	View File
Any other relevant information	No File Uploaded

7.1.10 - The institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic sensitization programmes in this regard: The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other	A. All of the above

staff Annual awareness programmes on the Code of Conduct are organized	

File Description	Documents
Code of Ethics - policy document	View File
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programmes, etc. in support of the claims	View File
Any other relevant information	No File Uploaded

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

IARE celebrates many national events to create awareness of rich cultural heritage of the nation. National/International commemorative days are regularly being celebrated and observed in IARE. All staff members and students gather in the college to celebrate these days. Celebration of cultural and constitutional festivals is the integral part of college's co-curricular activities. Throughout session different days are celebrated by students with guidance of teachers to help them to know about different cultures and to cognitively imagine India as a nation.

The important national and international commemorative days conducted by the institution are as follows.

- Republic day
- Independence Day
- International Women day
- International Yoga Day
- Teacher's day
- Gandhi Jayanthi
- Swachhta Divas
- National Constitution Day
- World Environment Day
- National Integration Day
- Road Safety Day
- Energy conversation day
- National Science Day

Some special events like tree plantation drive are conducted on
2nd October of every year to spread over harmony among one and all
and also International Yoga Day is celebrated on 21st June of
every year to spread awareness about Yoga as mean for healthy
life.

File Description	Documents
Annual report of the celebrations and commemorative events for during the year	[View File](#)
Geotagged photographs of some of the events	[View File](#)
Any other relevant information	No File Uploaded

7.2 - Best Practices

7.2.1 - Provide the weblink on the Institutional website regarding the Best practices as per the prescribed format of NAAC

Title of the Practice:Transforming into a Digitally Empowered
Institution - Use of effective online platform to address the
limitations in Teaching - Learning mechanism

IARE is designed to make the system user-friendly, time saving and
cost saving also. Many of them are flexible enough to adapt to the
changing educational environment efficiently and quickly. IARE has
established a comprehensive online solution that would convert all
such systems in place into common modules and integrate existing
data and solutions with the new system in place. IARE is providing
digital services to admin office, student, staff, library,
examination cell and placement cell through various portals such
as Samvidha, e-ExamDesk, ESLO, BuildIT and Akanksha. Latest cloud-
based technology is employed to address all of the challenges of
online education and assessment. Appropriate security measures are
taken for maintaining confidentiality and integrity of data using
Amazon Web Services (AWS).

Best Practice -II

Title of the Practice:Skill development initiatives for Overall
development of students and enhance start-up culture to promote
entrepreneurship

Objectives of the Practice

- transformational education experience to meet skill requirements of the industry
- provide multifaceted eco system to inculcate product development skills among students
- develop rational thinking and research culture among the students and faculty
- attract resources including funding opportunities for entrepreneurial experiments
- develop an innovation culture with societal obligations

IARE provides best eco system for the students to pursue their dreams. IARE strongly believes and motivate students to be Job givers and not Job Seekers.

File Description	Documents
Best practices in the Institutional website	https://www.iare.ac.in/NAAC/documents/c7/7.2.1_Best_Practices.pdf
Any other relevant information	Nil

7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

Program: Institutional extension activities for rural development and community empowerment

IARE not only enriches the lives of students and faculty members, but also contributes to the development of communal cohesion. Several extension efforts are carried out by the institute for the benefit of the surrounding villages and deprived community. The infusion of technology into tribal women's traditional customs sparked the concept of empowerment.

The institute has received 160 lacs funding from Department of Science and Technology, Government of India for the project titled "Poverty alleviation and upliftment of women through mechanized manufacturing of traditional ornaments and house hold products" in the year 2020. Tribal women (i.e., Lambada women or also called as Banjara's) living in Dundigal Thanda I and II are manufacturing their own ethnic dresses, traditional ornaments and household decorative items.

IARE offers a variety of community empowerment programs for deprived community in the proximity area. The following are the sample activities that are conducted periodically:

- Awareness program on socio-economic and sustainable development of the country
- Awareness program on new horizons of Science Technology knowledge to support elevating several agricultural rural challenges through applied Science Technology
- Teaching Tools and Digital Resources For school teachers
- Use of Mobile Applications for Digital Payment and e-Governance Services - for rural Women
- ICT Computer Skills Training to Govt School students
- Training on Digital Literacy for sweepers, attenders, drivers
- A School awareness Program on Real-Time Applications of Sensor Based Appliances
- Awareness program on national needs for rural India

File Description	Documents
Appropriate link in the institutional website	https://www.iare.ac.in/NAAC/documents/c7/7.3.1_Distinctiveness.pdf
Any other relevant information	No File Uploaded

7.3.2 - Plan of action for the next academic year

1. To recruit and retain well qualified motivated faculty
2. To provide holistic value based education and inculcate entrepreunal abilities in students to face the challenges of corporate world.
3. To increase the number of video lectures prepared by faculty members based on the curriculum and enrichment through NPTEL/SWAYAM portal.
4. To increase the numberof publications in various reputed national and international journals.
5. To increase participation to get awards for extension activities.
6. Initiative towards student and faculty exchange under various activities with national and international universities.