



Yearly Status Report - 2019-2020

Part A

Data of the Institution

1. Name of the Institution		INSTITUTE OF AERONAUTICAL ENGINEERING
Name of the head of the Institution		Dr. L V Narasimha Prasad
Designation		Principal
Does the Institution function from own campus		Yes
Phone no/Alternate Phone no.		04029709851
Mobile no.		9703618753
Registered Email		principal@iare.ac.in
Alternate Email		info@iare.ac.in
Address		Institute of Aeronautical Engineering Dundigal, Medchal
City/Town		Hyderabad
State/UT		Telangana
Pincode		500043

2. Institutional Status					
Autonomous Status (Provide date of Conformant of Autonomous Status)		13-Oct-2015			
Type of Institution		Co-education			
Location		Rural			
Financial Status		Self financed			
Name of the IQAC co-ordinator/Director		Dr. Y Mohana Roopa			
Phone no/Alternate Phone no.		04029709851			
Mobile no.		9573988829			
Registered Email		principal@iare.ac.in			
Alternate Email		iqac@iare.ac.in			
3. Website Address					
Web-link of the AQAR: (Previous Academic Year)		https://www.iare.ac.in/sites/default/files/AQAR_2018-2019.pdf			
4. Whether Academic Calendar prepared during the year		Yes			
if yes,whether it is uploaded in the institutional website: Weblink :		https://www.iare.ac.in/?q=pages/iare-academic-calendar			
5. Accrediation Details					
Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	A	3.05	2015	15-Nov-2015	31-Dec-2021
6. Date of Establishment of IQAC			06-Jan-2016		
7. Internal Quality Assurance System					
Quality initiatives by IQAC during the year for promoting quality culture					
Item /Title of the quality initiative by IQAC	Date & Duration		Number of participants/ beneficiaries		

Regular meeting of Internal Quality Assurance Centre(IQAC)	04-Jun-2019 1	19
Regular meeting of Internal Quality Assurance Centre(IQAC)	02-Sep-2019 1	20
Participation in National Institutional Ranking Framework (NIRF)	18-Dec-2019 30	6
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8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
Institute	Fund for Improvement of Science and Technology Infrastructure (FIST)	DST	2019 30	4500000
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9. Whether composition of IQAC as per latest NAAC guidelines:

Yes

Upload latest notification of formation of IQAC

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10. Number of IQAC meetings held during the year :

4

The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website

Yes

Upload the minutes of meeting and action taken report

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11. Whether IQAC received funding from any of the funding agency to support its activities during the year?

No

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

- Institute received Research grants from AICTE, DST totaling about 424.05 Lakhs in 20192020
- With the concept of Quality initiative in teaching, college has recruited many Ph.D holders as faculty. As of now 28 of faculties are Ph.D holders out of 261 total faculties.
- Eighteen Internal faculties have obtained Ph.D degree in 20192020, which helps enhancement of quality in teaching.
- Participated in Unnat Bharat Abhiyan
- Online and Onscreen digital evaluation and marking of

answer scripts • All Seven B.Tech programs, Two M.Tech programs and MBA program got National Board of Accreditation (NBA) for 3 years from 30/06/2019 to 30/06/2022. • Taken initiative in promoting green energy installed 160KW solar roof top power station LED lighting across campus to save energy. • Institute is ranked 139 in engineering category as per NIRF2019 MHRD, Govt of India. • Institute is categorized as Band B institution (rank between 2650) in category of 'Private or Self Financed College/Institutes' in Atal Ranking of Institutions on Innovation Achievement (ARIIA) - 2020, as per MHRD's Innovation Cell, Ministry of Education, Govt. of India.

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13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year

Plan of Action	Achievements/Outcomes
Organization of webinars, FDPs and seminars on latest trends in engineering and management	All the departments successfully organized webinars, FDPs and seminars on latest trends in engineering and management.
Collaborations and exchange programs with premier institutions for the academic year 2019-2020	Activities were conducted under collaborations and exchange programs with premier institutions.
NBA Accreditation for PG	Successfully NBA was accredited for three PG programs • Computer Science & Engineering • Embedded Systems and • Masters in Business Administration
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14. Whether AQAR was placed before statutory body ?

Yes

Name of Statutory Body	Meeting Date
Governing Body	07-Mar-2020

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?

No

16. Whether institutional data submitted to AISHE:

Yes

Year of Submission

2020

Date of Submission

14-Mar-2020

17. Does the Institution have Management Information System ?

Yes

If yes, give a brief description and a list of modules currently operational (maximum 500 words)

Development and maintenance of Institutional database through Intellect Campus Management System (ICMS) for the purpose of maintaining /enhancing the institutional quality. The Institutional official website provides necessary information to all the stakeholders. The Library is fully automated and digitalized. The administrative activities are fully computerized, right from the admission to the issue of Transfer Certificates. The centralized and digitalized Examination system is in practice. Tally software is used for all purpose Accounting. Some Modules of ICMS described below

- Examinations - This module takes care of the exam activities in the form of appointment of examiners, Answer Scripts evaluation, collection and compilation of continuous evaluation marks, end semester marks and declaration of results.
- Administration - The day to day data related to attendance of faculty is part of this module which also helps in monthly salary payment of all employee of the institute.
- Academic Activities - The information related to the students roll numbers their course details and their other information is part of this module.
- Timetable - Preparation and display of academic calendar and timetable.
- Attendance - Institute have a student attendance module which helps in recording online attendance of all UG and PG students. This module determines the list of students who does not qualify minimum attendance requirement of the institute.
- Leave Management - Through this module all staff members of the institute apply for different types of leaves and information goes for necessary approval of the same keeping record of total number of leaves consume by the staff throughout the year and the balance leave available with staff.
- Faculty service records - This module keeps service record of all faculties.
- Fees Payment - Students through this module can pay their annual tuition fee, exam fee and other fees using online mode.
- Feed back Through this module all students of the institute give early semester feedback, End semester OBE feed

back.Online feedback is an integral feature of evaluation of effective and efficient learning teaching practices.

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

1.1.1 – Programmes for which syllabus revision was carried out during the Academic year

Name of Programme	Programme Code	Programme Specialization	Date of Revision
BTech	A21	Aeronautical Engineering	02/03/2019
BTech	A05	Computer Science and Engineering	02/03/2019
BTech	A12	Information Technology	02/03/2019
BTech	A04	Electronics and Communication Engineering	02/03/2019
BTech	A02	Electrical and Electronics Engineering	02/03/2019
BTech	A03	Mechanical Engineering	02/03/2019
BTech	A01	Civil Engineering	02/03/2019

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1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
BTech	Civil Engineering	14/08/2008	Surveying and Geomatics(ACEBO1)	16/07/2018
BTech	Civil Engineering	14/08/2018	Building Materials, Construction and Planning(AC EB02)	16/07/2018
BTech	Civil Engineering	14/07/2018	Surveying and Geomatics Laboratory(ACEB03)	16/07/2018
BTech	Civil Engineering	14/08/2018	Civil Engineering Drawing Laboratory(ACEB04)	16/07/2018

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1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
Mtech	Electrical Power Systems	25/04/2019
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1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the College level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BTech	Aeronautical Engineering	25/07/2016
BTech	Computer Science and Engineering	25/07/2016
BTech	Information Technology	26/07/2016
BTech	Electronics and Communication Engineering	25/07/2016
BTech	Electrical and Electronics Engineering	25/07/2016
BTech	Mechanical Engineering	25/07/2016
BTech	Civil Engineering	25/07/2016
Mtech	Aerospace Engineering	25/07/2016
Mtech	CAD/CAM	25/07/2016
Mtech	Computer Science and Engineering	25/07/2016
Mtech	Embedded Systems	25/07/2016
Mtech	Structural Engineering	25/07/2016
Mtech	Electrical Power Systems	25/07/2016
MBA	Master of Business Administration	25/07/2016

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Aeromodelling	17/07/2019	115
Additive Manufacturing Technologies	17/07/2019	135
Parametric Analysis of CAD Modeling using SolidWorks Software	17/07/2019	132
Basic Simulation with MATLAB	17/07/2019	123
Simulation and training on Tinker CAD	17/07/2019	259
Automation using PLC and SCADA	17/07/2019	63

Electrical Safety Engineering	17/07/2019	63
Course on Solar Energy	17/07/2019	131
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1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BTech	Aeronautical Engineering	130
BTech	Electrical Engineering	130
BTech	Mechanical Engineering	130
BTech	Electronics and Communication Engineering	236
BTech	Computer Science and Engineering	235
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1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained
<p>The creation of a curriculum necessitates the participation of a variety of stakeholders, including educators, students, faculty, and employers. The work of the teachers requires them to define various aspects of the curriculum that are seen to be important and are in keeping with the most recent advances in technological innovation in the field of education. Teachers, in addition to contributing to the creation of the curriculum, also assist in putting the findings of the curriculum creation process into practice. It is the responsibility of teachers to continually contribute to the development of curricula by creating periodic course teaching plans and taking into consideration the unique requirements of their individual students. Therefore, having a good curriculum on its own will not assist in accomplishing the learning objectives and goals that have been set. Even if the use of cutting-edge technology in the classroom is becoming more widespread, educators IARE continue to play a crucial role in the development of their student's academic skills. To put it another way, technology should be incorporated into the curriculum, but it cannot perfectly replace the roles that teachers play in the formation of curricula and the overall learning process. Nevertheless, IARE incorporated technology into the curriculum. At IARE, we have a firm belief that recognizing ones own flaws is the first step toward making improvements. Our belief is borne out by the numerous feedback mechanisms that are available within our organization. IARE provides a feedback system that is both transparent and thorough. The purpose of this feedback method is to provide a</p>

mechanism for receiving, summarizing, and documenting information on the perceptions of the Institutes stakeholders regarding the quality and effectiveness of the Institutes curriculum. This information will then be used for the purpose of program evaluation. The following stakeholders, together with their feedback, are noted below: o Alumni o The Employers o Students o Faculty • The input provided by stakeholders is collected and evaluated at the department level. • An overall analysis of the report containing the feedback from the stakeholders is presented at the meeting of the Internal Quality Assurance Cell (IQAC). • The Head of the Department is responsible for drafting the action taken report based on the discussion and ideas offered in the feedback, and corrective steps have already been implemented.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BTech	Aeronautical Engineering	120	186	98
BTech	Computer Science and Engineering	240	392	240
BTech	Information Technology	120	210	120
BTech	Electronics and Communication Engineering	240	380	239
BTech	Electrical and Electronics Engineering	120	186	79
BTech	Mechanical Engineering	120	193	86
BTech	Civil Engineering	120	172	84

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2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2019	4320	168	243	12	255

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using	ICT Tools and resources	Number of ICT enabled	Numberof smart classrooms	E-resources and techniques used
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	ICT (LMS, e-Resources)	available	Classrooms		
255	255	9	72	10	7
View File of ICT Tools and resources					
View File of E-resources and techniques used					

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Student mentoring system is available in the Institution. Based on the student strength in the class around 15-20 mentees are allotted to every faculty. They monitor the following parameter of every student • Attendance • Academics • Extra and Co-curricular • Participation for placement • Discipline Issues During mentoring, mentors meet the students to discuss academics as well as other activities. With the help of mentoring, mentees can get rid of their personal problems and they can concentrate on their studies. Parents also called for counselling if necessary. Through mentoring the mentors Identified slow learns and bright students. For Bright Students: • Based on the performance, the students who are bright are encouraged by giving medals, Certificate sand cash prizes are announced at the time of College Annual Day. For Slow learners: • Remedial Classes are conducted for those students who could not succeed in some of the earlier subjects. • Remedial/Bridge Classes in Mathematics and Computer Programming are conducted for Lateral Entry Students, who have deficiencies because of their academic background limitations.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
4488	255	1:18

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
255	255	0	31	70

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2020	Dr. Y Mohana Roopa	Professor	IWN Telangana Leadership Conclave
2020	Dr. M Madhuhbala	Professor	IWN Telangana Leadership Conclave
2020	P Sruthilaya	Assistant Professor	Best Faculty Award-Margadarshi
2020	Dr. Ch V K N S Moorthy	Professor	Dewang Mehta National Education Award
2020	Dr. K Raghu Ram Mohan Reddy	Professor	Dewang Mehta National Education Award
2019	P Sruthilaya	Assistant Professor	Career Guru Awards

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2.5 – Evaluation Process and Reforms

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

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
BTech	A21	I/I	12/12/2020	30/12/2020
BTech	A21	II/I	06/05/2020	26/05/2020
BTech	A21	III/II	12/12/2020	30/12/2020
BTech	A21	IV/II	14/05/2020	30/05/2020
BTech	A21	V/III	12/12/2020	30/12/2020
BTech	A21	VI/III	14/05/2020	30/05/2020

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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
15	1099	1.4

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

<https://www.iare.ac.in/?q=AERO-Educational-Objectives-Outcomes>

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
A01	BTech	Civil Engineering	131	126	96.18
A02	BTech	Electrical & Electronics Engineering	64	61	95.31
A03	BTech	Mechanical Engineering	135	122	90.37
A04	BTech	Electronics and Communication Engineering	243	225	92.59
A05	BTech	Computer Science and Engineering	239	221	92.47

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2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

<https://www.iare.ac.in/?q=pages/studentsatisfactionsurveyreport>

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

3.1.1 – The institution provides seed money to its teachers for research

Yes

Name of the teacher getting seed money

Dr.A Naresh Kumar

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3.1.2 – Teachers awarded National/International fellowship for advanced studies/ research during the year

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
National	Dr. G Ramu	BRICS Young Scientist	29/06/2020	Department of Science and Technology, Government of India

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3.2 – Resource Mobilization for Research

3.2.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Major Projects	1095	DST	160.1	57.3
Major Projects	730	AICTE	33.89	16.9
Major Projects	730	DST	31.3	15.65

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3.2.2 – Number of ongoing research projects per teacher funded by government and non-government agencies during the years

6

3.3 – Innovation Ecosystem

3.3.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
How to write	Research and	12/09/2019

research/project proposals	development	
Research Methodology	Research and development	20/08/2020
Basics of Intellectual Property	Research and development	26/11/2019
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3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
BIOMIMICRY	Yarlagadda Gnanadeep	SAE INDIA	16/06/2019	Student
BIOMIMICRY	Thokala Harshit	SAE INDIA	16/06/2019	Student
Modeling and Animation Competition	S. Srikanth	SAE INDIA	16/06/2019	Student
Human Powered Vehicles	V. Dharmateja	SAE INDIA	16/06/2019	Student
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3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
Incubation Unit	IARE - ASPIRE Technology Business Incubation Centre	IARE	SR Health Monitoring systems	Virtual	24/04/2019
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3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
Aeronautical Engineering	0
Computer Science and Engineering	1
Information Technology	1
Electronics and Communication Engineering	0
Electrical and Electronics Engineering	2
Mechanical Engineering	2
Civil Engineering	0
Freshman Engineering	7
MBA	1

3.4.2 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Aeronautical Engineering	8	1.12
International	Computer Science and Engineering	34	1.03
International	Information Technology	6	1.03
International	Electronics and Communication Engineering	29	1.24
International	Electronics and Electrical Engineering	10	1.16
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3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Computer Science and Engineering	1
Information Technology	4
Electrical and Electronics Engineering	4
Freshman Engineering	1
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3.4.4 – Patents published/awarded during the year

Patent Details	Patent status	Patent Number	Date of Award
System and Method for Tracking Humans using Realtime Biosignals	Published	202041042171	25/10/2020
System for minimizing crosstalk effect of shells and designing multi-walled carbon nanotube models	Published	202041042460	25/10/2020
System for reducing crosstalk delays in electronic devices using a CMOS inverter	Published	202041042515	25/10/2020
System and method to improve performance of amplifiers using BIAS current	Published	202041042648	25/10/2020

System to obtain finite gain and noise of an electrocardiogram amplifier	Published	202041042674	25/10/2020
System and method for generating efficient energy to propel a vehicle	Published	202041024539	28/10/2020
Streetlight system and method for generating efficient energy using renewable energy sources	Published	202041024532	28/10/2020
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3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Facile synthesis of a novel nitrogen-doped carbon dot adorned zinc oxide composite for photodegradation of methylene blue	Atchudan, R., Edison, T.N.J.I., Mani, S., Perumal, S., Vinodh, R., Thirunavukkarasu, S., Lee, Y.R.	Dalton Transactions	2020	21	Institute of Aeronautical Engineering	21
An effect of precursor concentrations on the photodetection capabilities of CdS thin films for high-efficiency visible-light photodetector applications	Devi, M.D., Juliet, A.V., Hari Prasad, K., Alshahrani, T., Alshehri, A.M., Shkir, M., AIFaify, S.	Applied Physics A: Materials Science and Processing	2020	7	Institute of Aeronautical Engineering	7

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3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Facile synthesis of a novel nitrogen-doped carbon dot adorned zinc oxide composite for photodegradation of methylene blue	Atchudan, R., Edison, T.N.J.I., Mani, S., Perumal, S., Vinodh, R., Thirunavukkarasu, S., Lee, Y.R.	Dalton Transactions	2020	16	21	Institute of Aeronautical Engineering
An effect of precursor concentrations on the photodetection capabilities of CdS thin films for high-efficiency visible-light photodetector applications	Devi, M.D., Juliet, A.V., Hari Prasad, K., Alshahrani, T., Alshehri, A.M., Shkir, M., AIFaify, S.	Applied Physics A: Materials Science and Processing	2020	16	7	Institute of Aeronautical Engineering

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3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Presented papers	115	0	115	0

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3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultant(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Dr. P. Sridhar	Design and development of various electrical controllers for special purpose applications	Sandhya Electricals	50000

Dr. G. Ramu, Prof.LVN Prasad and Mr.Krishan Rao Patro	Design and Development of Remote Proctor Online Test(RPOT) software and Technical support	Pinnacle Nanotech India Private Ltd	1000000
Mr. Lingaswamy	Design and development of various electrical controllers for special purpose applications	Acces power care systems, Hyderabad	35000
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3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
Dr P Sridhar	Design and development of various electrical controllers for special purpose applications	MTE	100000	20
Dr G Ramu	Testing Tools	Zenopsys	200000	50
Dr G Ramu	Design and development of Enterprise Resource Planning application	Pinnacle Nanotech India Private Ltd	200000	50
Dr. M. Purushotham Reddy, Dr.Madubala	Design and development of Hospital Management application	Mythri Techno Solutions Pvt Ltd	300000	40
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3.6 – Extension Activities

3.6.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Haaritha Haram	IARE	5	100
International White cane day	IARE	8	60
Health Check Up for faculty	IARE	7	50
Blood Donation Camp	IARE	50	287

Blood Donation	HDFC bank and Red cross	12	90
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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
Largest Student Run NGO	Best Division	Street Cause, Hyderabad	600
Blood Donation	Generosity and Dedication	Thalaseemia Sickle Cell Society	100
0.22 inch Rifle Firing	Gold medal	NCC , Warangal	1
Best Technical Trophy of Secunderabad unit of AP and Telangana	Best Technical Unit	NCC, Secunderabad	1
Start and improve your business(SIYB) at Institute of Aeronautical engineering	Appreciation Letter	Ministry of Micro, small Medium Enterprises (MSME), Central institute of Tool design, Hyderabad.	80
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3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activities	Number of students participated in such activities
Heath camp	Institute of Aeronautical Engineering, and Malla Reddy Narayana Multispecialty hospital, Hyderabad	NSS	5	70
Haritha haram	Institute of Aeronautical Engineering	NSS	10	400
A School Awareness Programme under Schedule Caste (SC) category under ICPS Programme of DST - KATARAM High School Jayashanker Bhoopalapally	Institute of Aeronautical Engineering	DST	5	10

District,
Telangana

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3.7 – Collaborations

3.7.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
Effect of annealing temperature on structural, morphological, optical and electrical properties of spray deposited V 2 O 5 thin films	Yaragani, V.	Institute of Aeronautical Engineering	150
Analysis of composite single lapjoint under tensile load at varying design conditions	Moorthy, Ch.V.K.N.S.N.	Institute of Aeronautical Engineering	150

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3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Student Exchange	Project on Implementation of online condition monitoring System for critical Machines	Schneider	08/07/2019	23/11/2019	K.Nishanth Kumar

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3.7.3 – MoUs signed with institutions of national, international importance, other institutions, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
Management and Science university (Malaya Univeristy)	21/10/2019	Exchange of Faculty Members 2.Exchange of Students 3.Dual Degree Program	100

		4.Joint Reserch Activity 5.Parties in Seminars,Joint conference,and Academic Meetings 6.Exchange of Academic Materials 7.Assistance in Matter and Currriculum	
Mahaveer Institute of Science and Technology	15/09/2019	1.To Improve the teaching and learning Process Through pedagogi Programs and conduct faculty development programs for effective implementation of Outcome Based education 2.To Upgrade the Technical Knowledge by Promoting Research Collaboration in aria	100
LingarajAppa Engineering Colleg, Bidar	18/09/2019	1.To Improve the teaching and learning Process Through pedagogi Programs and conduct faculty development programs for effective implementation of Outcome Based education 2.To Upgrade the Technical Knowledge by Promoting Research Collaboration in aria	200
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CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
550	130

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Existing
Laboratories	Existing
Seminar Halls	Existing
Classrooms with LCD facilities	Newly Added
Seminar halls with ICT facilities	Newly Added
Video Centre	Newly Added
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Others	Newly Added
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4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or partially)	Version	Year of automation
New Gen lib	Fully	3	2008

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	55478	1287089	619	306554	56097	1593643
Reference Books	7904	1833728	42	20790	7946	1854518
e-Books	0	0	5000	128030	5000	128030
Journals	169	350143	169	350143	338	700286
e-Journals	224	1042498	224	1041662	448	2084160
Digital Database	1196	28500	1196	28500	2392	57000
Library Automation	1	12390	1	14150	2	26540
Others(s pecify)	911	1514583	1162	678380	2073	2192963
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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
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Mr.CH Chaitanya	Probability and Statistics	ICT	12/01/2020
K Viswanath Allamraju	MMOS	ICT	15/05/2020
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4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/ GBPS)	Others
Existing	1579	45	1	2	2	1	9	200	0
Added	48	5	0	2	0	0	0	200	0
Total	1627	50	1	4	2	1	9	400	0

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

400 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
ICT	https://www.iare.ac.in/?q=Information-and-Communications-Technology

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
86	83	300	284

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website)

• The Institute has Infrastructure Development and Maintenance Committee and Campus Cleaning Committee that oversees the maintenance of buildings, classrooms and laboratories. • The Infrastructure Development and Maintenance Committee is headed by the Administrative Officer who in turn monitors the work of the Supervisor at the next level. The Supervisor is accountable to the Administrative Officer and functions as the coordinator who efficiently organizes the workforce, maintaining duty files containing details about their individual floor - wise responsibilities, timings, leave etc. The maintenance officer conducts periodic checks to ensure the efficiency / working condition of the infrastructure. • Adequate in - house staff is employed to meticulously maintain hygiene, cleanliness and infrastructure on the campus so as to provide a congenial learning environment. Classrooms, Staffrooms, Seminar halls and Laboratories, etc are cleaned and maintained regularly. Washrooms and rest rooms are well maintained. Dustbins are placed in every floor. • Optimum working condition of all properties/ equipment on the campus is ensured through

annual maintenance contracts (AMC).The AMC purview includes maintenance of Generator, Air Conditioners, CCTV cameras and Water Purifiers. Apart from contract workers, the college has trained in - house electricians and plumbers.

- Lab assistants under the supervision of the System administrator maintain the efficiency of the Institute computers and accessories.
- Parking facility is well organized. It is efficiently maintained by maintenance committee.
- The campus maintenance is monitored through surveillance Cameras.
- Every department maintains a stock register for the available equipment.
- Proper inspection is done and verification of stock takes place at the end of every year.
- The civil and electrical work is adequately monitored and maintained by the administrative office.
- Periodic reporting on requirements of repairs and maintenance are submitted by the HODs to the Principal office. The requirements are collectively processed in every semester break to keep things ready for the new semester.
- Pest control of library books and records is done every year by the maintenance department.
- Administrative office manager and his team are involved in the maintenance of infrastructure facilities. This team looks after the regular maintenance of civil works such as furniture repairs, masonry and plaster works, painting, carpentry, plumbing and house- keeping.
- The non-teaching staffs are also trained in maintenance of science and computer equipment.
- Maintenance committee workers look after the maintenance of rest rooms, approach roads and neatness of the entire premises. Housekeeping services are regularly executed and monitored.

<https://www.iare.ac.in/?q=sitemap>

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	IARE Scholarships	48	635000
Financial Support from Other Sources			
a) National	Prime Minister's Scholarship Scheme PMSSS	4	316400
b)International	Support to students for participating in competition(Aeronautical Engineering)AICTE	12	1000000

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5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
Auto Desk Revit	20/10/2020	64	IARE
Verbal Communication - English Language Basics	17/01/2020	150	IARE

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5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2019	Placement And Training Dhanush 2020	0	623	0	554
2019	Seminars on Career Counselling	0	975	0	450

No file uploaded.

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
0	0	0

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
Capgemini	623	586	Nil	0	0

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5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of programme admitted to
2019	1	B Tech	Aeronautical Engineering	Universitat Politècnica de Catalunya Barcelona	MS
2019	1	B Tech	Aeronautical Engineering	Indian Institute Of Science Bangalore	MS

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5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
GRE	30

GMAT	25
TOFEL	67
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5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Kabadi (Girls)	Intra Institute Level	44
Foot Ball	Intra Institute Level	85
Cricket	Intra Institute Level	90
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5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2019	First Prize	National	Nil	1	15951A1248	Sushmita
2019	Third Prize	National	1	Nil	16951A0545	G.Shivani
2019	Third Prize	National	1	Nil	17951A2141	M. Manoj ukumar
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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

To inculcate leadership skills, organizing skills and to also play an active part in the day to day academic and co-curricular activities of the institution, students are appointed in various academic and administrative committees. Academic Committees: 1) Class Representatives Committee Activities: Monitor on the syllabus coverage both in theory and laboratory, monitor discipline in the class and represent any issues related to students. One Class representative and one Lady representative from each class is nominated at the beginning of each year. 2) Library Committee Activities: To give feedback on the library services periodically and represent their needs to the Library committee. One representative from each department is nominated at the beginning of each year. Administrative Committees: 1) Anti ragging Committee Activities: The student representatives in this committee take prudent steps in prevention of incidents and help the anti-ragging committee maintain the campus ragging free. Two representatives from senior students, one first year student are nominated at the beginning of each year. 2) Women Grievances Redressal Committee Activities: To enquire and address the grievances of girl students and lady staff individuals. Two students, one from senior group and one from first year are nominated at the beginning of each year. 3) Canteen Committee Activities: To give regular feedback on the cleanliness, quality and the prices of the food items provided in the canteen. One representative from each department is nominated at the beginning of each year. 4) Student Grievance Committee Activities: To represent the grievances of the students periodically to the Student Grievance Committee on the academic facilities, transportation facility, sports and games facility and any other issues related to students. One representative from each department is nominated at the beginning of each

year. 5) Student chapters Activities: To register as members and participate in various professional activities conducted by the student chapter like workshops, conferences for paper presentations, specialized tests and so on. 6) Editorial Board activities: The Editorial Board comprises of Chief Editors, Editor and Students Editors. The Board invites writing from students and teachers and publishes them in the form of College News letter. 7) Extra-Curricular Committee: This Committee is constituted to promote the cultural activities among the students. Culturally talented students are spotted by Committee members and the efforts are made to develop their skills and talents by encouragement, right training and performances.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

This Institute has a registered Alumni Association named Institute of Aeronautical Engineering Alumni Association registered under the Telangana Societies Registration Act., 2001. The following are the activities of alumni associate. 1. Alumni association meetings are held once a year in the campus. 2. Members of Alumni are in the Boards of Studies, IQAC. 3. Alumni address the third year and fourth year students periodically towards carrier guidance. 4. Some of the Alumni have become entrepreneurs. It is a happy note that some of them recruited our own students, becoming employers. 5. Heads of departments regularly are in touch by emails with the respective alumni to receive their feedback in framing Vision, Mission, PEOs and POs. 6. At draft course structure and syllabi level some of the Alumni are involved in the finalization of syllabus The Association plans to setup guidance cell to aid the present and past students in the task of trying to give their future a definite and purposeful direction. The guidance cell, apart from assisting the placement cell, will also assist present students in availing project facilities in various industries in their area of interest.

5.4.2 – No. of registered Alumni:

4201

5.4.3 – Alumni contribution during the year (in Rupees) :

300000

5.4.4 – Meetings/activities organized by Alumni Association :

Institute of Aeronautical Engineering conducts ALUMNI Meet every year in the month of March. 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 of Institute of Aeronautical Engineering. More than 200 alumni attend the event every year to share their experiences with the juniors.

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

The success of an institution is the result of the combined efforts of all who work towards attaining the vision of the institution. All stakeholders' involvement and cooperation in devising and implementing decision making policies for academic and administrative affairs through various bodies and committees have contributed to the growth of the college. Institution focuses keen on decentralization by intending equal opportunity (equal role to participate is the functioning of the institution management comprises of

management members, institute governing body and each committee has been provided with specific functions cater to the needs of institution for the ongoing progress and development of the institution. Management members takes case of infrastructure facilities which fulfil the quality and the required needs of the higher education bodies to reach the set goals or benchmarks of the institution. It also extends all the amenities for the teaching and nonteaching faculty and students. Institute governing body takes care of financial management and the implementation of facilities for the institution with the cries to upgrade the standard of amenities which supports effectively the teaching learning and research aspects. It guides and articulates the available resources and provides freehand to the head of the institution to carry out the activities in order To reach the expected maximum standard in turn to motivate the teaching and non-teaching faculty to work according to the goal set. The principal, heads of the departments, teaching and non-teaching staff along with class student representatives together concentrate on fostering the progress of institution by sharing the responsibilities and participate growth of institution and to act according to the aims and objectives of the institution. The following committees are formed for attaining the best overall performance of the institute in academic, co-curricular and extra-curricular activities:

- Disciplinary committee
- Anti-ragging committee
- Placement and Training (PAT) committee
- Internal Quality Assurance Centre (IQAC)
- ResearchDevelopmentcommittee (RD)
- IPR/ Patents and copy rights committee
- Build IT / office automation, online services and website committee
- Student Start-up and business incubation centre committee
- Information and communications technology committee
- Infrastructure development and maintenance committee
- Campus cleaning committee (campus classrooms/ labs and library)
- Women harassment committee
- Collegiate women's development committee
- Grievances and redressal committee (faculty and staff)
- Grievances and redressal committee (students)
- Library committee
- SC / ST committee
- Sports and games committee
- Cultural committee
- Finance committee
- Examination committee
- Admission committee

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Curriculum Development	<ul style="list-style-type: none"> • The Curriculum was discussed at various levels and then presented to the Board of Studies, which includes members from other institutes and industries. This was sent to the Academic Council for approval. • Course objectives are mapped with the course outcomes. A course end semester OBE survey is conducted at the end of every course and necessary measures are taken for improvement. The results of mid exams were mapped with course outcomes and the achievement levels are indexed. • The curriculum design is based on the following • Model curriculum prescribed by AICTE • Curricular structure • Syllabus for various competitive exams like GATE, IES, etc. • Syllabus of various reputed Indian and

International Universities

Teaching and Learning

- In order to ensure quality teaching Learning, Innovative teaching methods are implemented. Active Learning methods are implemented to bring innovation within classrooms. Continuous seminars/ lectures / workshops are arranged for the faculty to enable them to create a learner centric environment. • We are following OBE methodologies. To make learning more effective we have choice-based credit and grading system of examinations. We have devised new teaching pedagogies for different category of students. We ensure a perfect blend of classroom teaching ICT enabled teaching so that the students are motivated all the times. We ensure state of the art lab facilities, Computational facilities, Library also competent faculty. • E-learning is promoted through ICT, opening an NPTEL Local Chapter Continuous online assessment process called Hackathon-is also introduced for assessing the students

Examination and Evaluation

- The Institute strictly follows examination and evaluation schedule. The examination and evaluation schedule is mentioned in the academic calendar.
- Automation of the Controller of Examination (COE) office to ensure timely Conducting the Continuous Internal Examinations (CIE) and Semester End Examinations (SEE). Processing and publishing results in time. Issuing certificates such as Grade Sheet, Consolidated Statements of Grade, Provisional Certificate and Transcripts. • Sending a list of successful candidates with their Cumulative Grade Point Average (CGPA) to the Jawaharlal Nehru Technological University Hyderabad, Hyderabad for issuing Original Degree Certificate. • Evaluation of marks comprises internal marks obtained from continuous assessment and external marks secured in End semester examination. The final grade is determined by considering marks obtained both in internal examination and end semester examination.

Research and Development

- The Institute has established Research Development Centre at the Institution level to promote Research

Innovation among the faculty student. • The institution facilitates faculty participation in research by granting leave and providing financial assistance for attending seminars, conferences, FDPs etc. Adequate infrastructure like well-equipped laboratory, computing facilities and library are made available to carry out research. • Research incentives and awards to members of faculty for publishing in reputed and high impact factor journals. • Conducting research meetings on weekly basis to facilitate inter-disciplinary research. • Members of faculty mentoring students to transform innovative ideas into products Our faculty invariably gets minor and major research grants from AICTE, DST, UGC every year. We have 10 patents from our faculty and students. Our faculty has published books from reputed publishing houses like Wiley, Lambert etc.

Library, ICT and Physical Infrastructure / Instrumentation

• Library has a modern infrastructure with a reading capacity of 500 students and 55000 volumes of books. It has subscribed to more than 180 online journals of IEEE, ASME and it is subscribing more than 156 Indian Journals Magazines in print. • Digital library with 40 systems to access E-journals, E-books, E-learning, Multimedia Centre and photocopying are made available for the convenience of the users. NPTEL facility (National Programme on Technology Enhanced Learning) to access video lectures. Library is fully computerized with bar-coding system. The institute regularly increases ICT facilities like wall mount television, Cameras, LCD Projectors, for all classrooms, tutorial rooms and Laboratories. Classrooms equipped with -audio system, Wi-Fi facility and wired internet/network facility, each department is provided Laptops for faculty usage in

Human Resource Management

• The faculty and staff requirements are assessed based on the workload as per the AICTE norms. • Before commencement of every academic year the faculty and staff requirements are assessed, and the vacancies are advertised in leading dailies. Duly constituted selection committees recruit the faculty and staff. • A self-

devised faculty-self appraisal system is followed to mentor and monitor faculty competence. • Quality enhancement measures like deputing to Faculty development programs in subject and capacity building domains etc Self-appraisal method: Faculty are required to submit their assessment through self appraisal form. The self appraisal form is studied by the Principal and the Management. The suggestions, remarks are communicated to the faculty on specific points for improvement. Staff annual increments are linked to their self appraisal form.

Industry Interaction / Collaboration

• Better interaction between Technical institutions and industry is the need of the hour. This will have great bearing on the Engineering Curriculum, exposure of industrial atmosphere to engineering students and subsequent placement of young graduating engineers in industries across the country. • The Industry-Institute Partnership Centre (IIPC) of the institute is a dedicated to promote the close interaction of industry and various departments of the institute. The IIPC facilitates consultancy, sponsored R D projects and industrial and academic trainings those are not prescribed in the syllabus in addition to conducting industrial exhibitions and interaction meets. IIPC prepares engineering students for jobs in multinational companies, by exposing them to newer technologies and engineering methodologies. This bridges the gap between industry and the academic institute.

Admission of Students

• Upon recommendations of University Grants Commission (UGC), New Delhi and the State Government, Jawaharlal Nehru Technological University Hyderabad has conferred Autonomous Status to the Institute from Academic year 2016-17, whereby the College will award Degree on behalf of Jawaharlal Nehru Technological University Hyderabad. Admissions to the Institute are made along with the other engineering colleges in the state through a common entrance test conducted by the Govt. of Telangana.

6.2.2 – Implementation of e-governance in areas of operations:

E-governance area	Details
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<p>Planning and Development</p>	<ul style="list-style-type: none"> • To use ICT in the process of planning institute-events and activities, institute uses personal e-mails. Important notices and reports are also circulated via e-mails, Faculty bulletin board, and telegram. E-governance is the integration of Information and Communication Technology in all the working processes of the system. It aims to minimize the manual efforts and improve the communication, create transparent system, and to be cost and time effective. To facilitate the same Institute is using ICMS software with Student, Examination, Finance Account, Employee, and Library Modules.
<p>Administration</p>	<ul style="list-style-type: none"> • The campus is equipped with 200 CCTV Cameras installed at various places of need. • To surveillance on mobile by Principal, software is available for surveillance on computer for college Authorities. • ICT has been introduced in the Administrative work. • Telegram Group helps to provide the brief notices of any event to be happened on college. • Telegram Groups are also used for awareness and of smooth functioning of the same.
<p>Finance and Accounts</p>	<ul style="list-style-type: none"> • With the aim to produce immediate information in finance and Accounts, this section is partially governed. The Institute uses the, ICMS, Tally for the transparent functioning of Accounts department. The same software is used to generate various reports
<p>Student Admission and Support</p>	<p>software is developed so as to fulfil the need of Student admission and Support.</p> <ul style="list-style-type: none"> • The software is also used for student support like issuing • Transfer Certificate • Bonafide certificates • Admission Forms • Receipt for payment
<p>Examination</p>	<ul style="list-style-type: none"> • Question papers based on blooms taxonomy • End semester examination question papers are set by external experts • Online Multiple Choice Questions • Double Valuation System • Dummy Number System • Online Mark Entry System for Internal and External System • Hall Ticket with Student Photos • Bar code system for coding and decoding of scripts • The college publishes the Rules and Regulations for all programs. In addition to the academic rules and regulations, the regulations governing

examination, evaluation and mal practices etc., have been manifested. A comprehensive (up dated) examination manual is in place. • The college conducts regular orientation and awareness programs to bring awareness about the Rules and Regulations. • Online Registrations for Institution Electives. • All answer papers of end semester examinations undergo double valuation including by an external evaluator • Answer sheets are subjected to third evaluation by another examiner, if there are undue discrepancies noted in the double evaluation made by the examiners • Recounting, Revaluation and personal identification ? Some of the other noteworthy reforms in examinations:-
 o Computerization of mark sheet printing and Transfer Certificate
 o Photographs are also captured and put in database at the time of enrolment.
 o Proper upkeep of permanent record introduced.

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2019	Mr. C LABESH KUMAR	The First International Conference on manufacturing, material science and engineering 2020 (ICMMSE2020)	NA	8000
2019	Mr. A PRAVEEN	Lambert Academic Publishing (Text Book)	NA	5000
2019	Dr. Y MOHANA ROOPA	International Conference on Communication and Electronics Systems [ICCES 2020]	IEEE	6500

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6.3.2 – Number of professional development / administrative training programmes organized by the Colleges for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	Power electronics for renewable energy systems	Nil	09/09/2019	14/09/2019	23	Nil
2019	Artificial intelligence, machine learning applications in power electronics	Nil	14/12/2019	19/12/2019	22	Nil

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6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
LaTeX	1	17/05/2020	30/05/2020	14
A five Day FDP on Artificial Intelligence and Machine Learning for Engineering Applications, Hyderabad	4	08/06/2020	12/06/2020	5

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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
265	265	105	105

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
<ul style="list-style-type: none"> • Group Insurance Policy • Uniforms for the supporting staff • 	<ul style="list-style-type: none"> • Group Insurance Policy • Uniforms for the supporting staff • 	<ul style="list-style-type: none"> • Student insurance • Student Welfare Fund for fee waivers and

Advance to meet emergency expenditure • Financial aid to educate the children of supportive staff Transportation	Advance to meet emergency expenditure • Financial aid to educate the children of supportive staff Transportation	concession. • Conduct of student-initiated technological events at institute level. • Organize orientation programs for the first-year students on all matters relating to academics, student discipline and services
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6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

Institute of Aeronautical Engineering conducts internal and external financial audits. It has a full-time Treasurer and Accounts Department since inception to ensure maintenance of annual accounts and audits. 1. The following agencies conduct regular financial audit in the Institute: • External Audit: External Audit is conducted by the Chartered Accountant of the Institute • Internal Audit: Internal Audit is conducted by an Internal Auditor. 2. Chartered Accountant of the Institute conducts statutory audit covering all financial and accounting activities of the Institute. This includes scrutiny of the following: (a) all receipts from fee, donations, grants, contributions, interest earned and returns on investments (b) all payments to staff, vendors, contractors, students and other service providers. 3. Internal Auditor of the Institute conducts regular accounts audit. All Utilization Certificates to various funding agencies are also countersigned by the Chartered Accountant.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
NGOs-Philanthropists	1685000	Student communities engage with NGOs and Philanthropists for donations
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6.4.3 – Total corpus fund generated

0

6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	Audit committee formed by the Department involving External academicians (At least two)	Yes	IARE
Administrative	Yes	Audit committee formed by the Department involving Exter	Yes	IARE

nalacademicians
(At least two)

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

- Parents Meet was conducted on 17th March, 2020. More than 400 parents attended the programme and interacted with the respective Student Counsellors and HODs.
- To foster and promote good relationship among the members of the teaching staff, students and parents/guardians, Parent Teacher Meetings are organized from time to time in the college where in parents are informed about their wards' academic performance and attendance records. Feedback from parents as well as from students is taken.
- Academic performance is analyzed and suggested to take the necessary steps to improve the performance of the students. Discussion on discipline and ethical values followed by students and given suggestions for the improvement of the same

6.5.3 – Development programmes for support staff (at least three)

- Training programs are conducted on regular basis either by the faculty or by the technical people from the equipment / instrument's suppliers to up-grade their skills in handling and maintaining them in laboratories.
- Basic computer training is provided to the supporting staff. It enables the staff to effectively use the computer for various departmental works.
- Staff members are encouraged to pursue higher education and short term courses for knowledge upgradation. Financial support is given for acquiring higher qualification.
- Providing ESI, EPF facilities for supporting staff members.

6.5.4 – Post Accreditation initiative(s) (mention at least three)

- The College is accredited by National Board of Accreditation NBA, New Delhi for all seven branches of Engineering from 30/06/2020 to 30/06/2022
- Institute is ranked 139 in Engineering category as per National Institutional Ranking Framework (NIRF) - 2020, Ministry of Human Resource Development (MHRD), Govt. of India.
- Strengthen ICT infrastructure online learning resources
- Launching of Incubation Centre
- Teachers are encouraged to engaged themselves in various research-oriented Activities
- The office of international affairs came into existence in 2020 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.
- Regular conduct of IQAC meetings, statistical data collection and preparation of AQAR.
- Seed money is provided by the management to faculty for carrying out research activities.
- More numbers of extension activities are carried out for student awareness.

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	Yes
c) ISO certification	Yes
d) NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	8th International	05/08/2019	05/08/2019	05/08/2019	25

	Conference on CCSN2019 Computing, Communication and Sensor Networks was jointly organized by Institute of Aeronautical Engineering, Hyderabad and Applied Computer Technology, Kolkata, West Bengal				
2019	A six days lecture series on Gate Coaching in Power Electronics	16/08/2019	16/08/2019	16/08/2019	35

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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Awareness Program on Women Safety and Respect	07/08/2019	07/08/2019	52	65
Seminar on Bodies that Matter: The Ideology of Gender	16/09/2019	16/09/2019	148	58
Seminar on the history of Nirbhaya Act	12/10/2019	12/10/2019	118	97
YOGA for Successful life	17/02/2020	17/02/2020	45	64
Gender Sensitization	24/02/2020	24/02/2020	201	49

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	10
Provision for lift	Yes	40
Ramp/Rails	Yes	25
Braille Software/facilities	No	0
Rest Rooms	Yes	25
Scribes for examination	Yes	5
Special skill development for differently abled students	Yes	2
Any other similar facility	Yes	25

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2019	32	32	07/08/2019	1	Rain Water Harvesting	Students learned various methods and techniques to conserve water.	59
2019	32	32	19/08/2019	1	Orientation and Installation of Operating Systems in School	School students know about computer and its components, Internet.	26

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7.1.5 – Human Values and Professional Ethics

Title	Date of publication	Follow up(max 100 words)
Student Handbook	01/07/2020	At the time of admission or during induction programme every student is given a handbook which provides

details like vision and mission of the college, program outcomes for different programs along with general code of conduct for the students, academic delivery and assessment procedures, examination regulations, information on various facilities and amenities available in the institution. The student is given instructions on rules to be followed and consequences of non-adherence to rules or misconduct of any nature. Discipline on campus is of utmost priority

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Professional Ethics and Human Values Course Integrated with the Curriculum with the designed syllabus	22/07/2019	22/07/2019	440
Blood donation camp In IARE campus and collected 150 units of blood	24/07/2019	24/07/2019	430
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7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

- Plantation
- Energy Conservation
- Use of Renewable Energy
- Waste Management
- Water Conservation and Management

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

Best Practice - I

1. Title of the Practice: Promotion of Research Research is the major component of Higher Education. It widens the intellectual perspective of both the staff and the students. The mental calibre of an individual is adjudged by the contribution made by him/ her to research. The research achievement of both the teachers and the students is the most important factor that determines the rank of the institutions. Generation of new knowledge and the expansion of the existing knowledge pave way for the progress of the country in the world arena as the economic development of any country depends solely on research. IARE vies with other institutions in providing opportunities, creating and augmenting infrastructure facilities encouraging and supporting staff and students to launch on research projects.

2. Objectives of the Practice

- To keep pace with the relentless wheel of change and update the intellectual calibre of the faculty.
- To encourage the faculty to pursue Ph.D.
- To acquire guideship to produce more research scholars.
- To motivate

the faculty to apply for the major and minor research projects by providing guidelines and details of funding agencies. • To fulfil the requirements to promote the research departments into research centres. • To collaborate with other institutions and universities in and abroad. • To arrange for interface among the institutions, industries and the public to take up research projects relevant for the present day. • To encourage the faculty and the students to organize and present research papers in the national/ international seminars/ conferences/ workshops. • To publish quality research articles in reputed journals, edit study materials for the prescribed syllabus and author books of high originality. • To provide seed money for research activities.

3. The Context Being aware of the need of research in Higher Educational Institutions, the Institute has multiplied the required infrastructure facilities for research in the Institute. The college is supported by DST - FIST from the academic year 2020-19 to enhance the research activities. • All Departments have been provided with laboratories filled with advanced High Tech equipments.

- The number of books required for research has been added to the library stock.
- The research section in the library displays the copies of dissertations, theses and project reports of the scholars.
- Easy access is made to net facility in the Library and departments.
- Staff and students are encouraged to organise/ attend and present papers in the research-oriented conferences/ seminars within and out of the Institute and publish research papers in peer reviewed journals with high impact factor.
- Lack of interest to take up research.
- Lack of time on the part of the teachers who are bent on improving the academic standard of the first generation learners.
- Reluctance to learn and use modern technological devices for research.

4. The Practice The Research committee has created a research environment at the Institute through Research Forum. It has provided a platform for the Ph.D. Research Scholars to make the presentation of their findings in the Research forum. The views and comments offered by the Principal, the Guides of the Research Scholars, the other teachers and peers have instilled in them confidence to focus on their research. • The institution motivates the faculty to do research for Ph.D. The Institute encourages the teachers to undertake Major and Minor Research Projects funded by AICTE, UGC, DST or other agencies. Support facilities for research • Leave is sanctioned to the staff who are on the verge of completing their research work. • Special Permission and Leave are given on request to visit to various universities and libraries for data collection. • The management motivates the staff to go to the educational institutions in other countries for paper presentation by procuring travel grant from the AICTE. • MoUs is formed with International Universities, to promote teaching, learning and research. • The management extends financial assistance to the self-financed faculty who make research publications in the journals with high impact factor.

5. Problems faced in the pursuit of research • The gap between academia and industries is not fully bridged to fulfil the needs of industries due to lack of time for the internship of the students in the industries. • Getting funds from various funding agencies is a challenge to the staff and the students. • The period of hands-on training in the industries is inadequate to address challenges faced in the job market. • Field Research is planned to be undertaken in Extension Programme to solve real life problems. • The students and the teachers have to be encouraged to take up Interdisciplinary and socio-economic developmental research. • Ph.D. holders can be motivated to publicize their research in the form of books.

6. Evidence of Success • 72 faculty with Ph.D • 234.45 Lakh amount sanctioned towards Major and Minor Research Projects from various agencies • 24 State/National Level Seminars /Workshops were organized by the Departments and IQAC. • 163 staff have published 221 papers in the National and International Journals and conferences. • patents filed 9 patents published, 5patents granted in2020. • Eighteen staff members published 20 books. • 40 students have published 29 papers in the Journals and 16 students have presented 12 papers in the Conferences. • 22 staff acted as

resource persons and enriched others with their expertise in their subjects.

Best Practice - II: 1. Title of the Practice: Integration of Information and Communication Technology (ICT) resources into Classroom teaching

The Information and Communication Technology to be precise has become a driving force behind economic growth and a developmental tool as well. ICT is an extended term for Information technology which is a technological source to make information available at the right time, right place in the right form to the right user. Earlier, one had to wait for the newspapers to get the information across the world. Now with the smarter technology, information can be accessed from anywhere using smart phones and gadgets. All this is made possible with the help of Information and Communication Technology. Information technology has been influencing our lives in the recent years in the fields of education, healthcare, and business. Going an extra mile, Information and communication technology in Institution has had a major impact.

2. Objectives of ICT implementation in education:

- To implement the principle of life-long learning / education.
- To increase a variety of educational services and medium / method.
- To develop a system of collecting and disseminating educational information.
- To promote technology literacy of all citizens, especially for students
- To promote the culture of learning at institution (development of learning skills, expansion of optional education, open source of education, etc.)
- To support Institution in sharing experience and information with others.

3. The Context In this technological era, ICT in education has compelled many higher education institutions to get accustomed to smart technology. This communication software uses computers, the internet, and multimedia as the medium of communication which helps the students for an advanced learning by using the specific instructional strategies and techniques. ICT Encourages participatory learning and student centric learning wherein the mode, technique/method and the pace of learning are decided by the students. Some of the instructional strategies of ICT are mentioned here under: Computer-based learning, Internet, Classroom Learning, Video conferencing

4. The Practice: ICT facilities are adequately available in the institution for academic purposes. There are well equipped computer laboratories in the institution. The departments have their own computer facilities along with printers. Apart from computer facilities in the departments, Digital library facility is also there. Computers having internet connection facilities. 4000 MBPS leased line for internet access is extended to the entire campus. Campus networking is with Fibre Optic cables. Classrooms are equipped with audio visual aids to cater to the needs of the students.

ICT Infrastructure: The ICT infrastructure includes Facilities for e-learning, e-content development, Digital Library. Wi-Fi internet availability and a good number of Workstations and LCDs. The institution has introduced NPTEL massive online open courses by using ICT aids for some courses like IOT, Python Programming.

5. Evidence of Success: Students would be able to know and understand practically how IOT (Internet of Things) with Rasp-berry Pi works. For example Students can work on their academic projects on IOT like Smart dustbins, Smart water level equipment etc., Students of Under Graduate engineering are encouraged to do specific projects with the help of IOT Like Online Temperature Measurement for characterizing heat transfer enhancers, impact energy measurements for calibrating force transducers. Some of the IOT based projects done by the Engineering students are:

- Automated Street Light Management System
- Ultrasonic Laser enabled visually impaired guiding system
- Smart Helmet
- Smart Parking system
- Automatic Plant watering by soil moistening detection
- College Bus parking system
- Hybrid Power generation system

6. Problems encountered and resources required: One significant problem student are faced with is disconnectivity (connectivity may be missed out) due to Power off to the concept

Upload details of two best practices successfully implemented by the institution as per NAAC format in your

institution website, provide the link

<https://www.iare.ac.in/?q=basicpage/naac-accreditation>

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

As a part of vision and mission of our college to produce innovative research that emboldens entrepreneurship industry-ready students, The Institute of Aeronautical Engineering is devoted to enhancing knowledge through research across all academic disciplines. Focus areas include Nanotechnology, Environment, Aerospace and Dynamics, CAD/CAM, CNC Machining, Embedded Systems and Low Power VLSI Digital System Design. Emphasis is also being laid on Business Analytics, Big Data, Cloud Computing, Wireless technology and Multimedia for video, text processing and Next Generation Networks. The Institution has to its credit, over 600 research publications in Scopus indexed International Journals, National Journals, International Conferences and National Conferences. 30 Patents have been filed / granted to faculty and students. Got research grant sanctioned Rs. 21.39 crores through 14 Research projects, 23 research schemes from DST, UGC, AICTE and other Government agencies. The Institute of Aeronautical Engineering runs a Science Technology Start-Up Park (STSP), a technology business incubator facility to support start-ups in the areas of information technology, electronics and mechanical engineering enabling Smart Manufacturing via the Make in India Initiative. It aims at offering students with innovative ideas and an opportunity to become entrepreneurs. Promising candidates, who have exciting ideas, can start right from the first year. STSP functions in association with the Ministry of Micro, Small Medium Enterprises, the Confederation of Indian Industry, National Entrepreneurship Network, Ministry of Skill Development Entrepreneurship, PMC IEDC, ITCOT, EDI, SIDCO and TIIC. We have signed an agreement with 16 corporate houses to facilitate incubation of ideas. Better interaction between Technical institutions and industry is the need of the hour. This will have great bearing on the Engineering Curriculum, exposure of industrial atmosphere to engineering students and subsequent placement of young graduating engineers in industries across the country. The Industry-Institute Partnership Centre (IIPC) of the institute is a dedicated to promoting the close interaction of industry and various departments of the institute. The IIPC facilitates consultancy, sponsored R D projects and industrial and academic trainings those are not prescribed in the syllabus in addition to conducting industrial exhibitions and interaction meets. IIPC prepares engineering students for jobs in multinational companies, by exposing them to newer technologies and engineering methodologies. This bridges the gap between industry and the academic institute. IARE-BI is an initiative supported by Maruthi Educational Society and MTE Industries, Hyderabad. It aims to nurture technology and knowledge-based entrepreneur's right from ideation stage to starting a business venture. The incubation centre will focus (not limited to) on working with the start-ups in the areas of:

- Smart Manufacturing
- Rapid Prototyping
- Composite material
- Embedded Systems
- Internet of Things
- Agriculture
- Smart Grid
- Instrumentation and Sensors
- Avionics

The Ministry of Micro, Small and Medium Enterprises has sanctioned a grant of Rs. 96.5 lakh towards plant and machinery for various innovative projects developed by the students attached to the Technology Innovation and Incubation Centre of the Institute of Aeronautical Engineering. The funds have been sanctioned under the MSME's support for entrepreneurial and managerial development of

Provide the weblink of the institution

<https://www.iare.ac.in/?q=basicpage/naac-accreditation>

8.Future Plans of Actions for Next Academic Year

? To promote research-oriented activities. ? To further enhance MOU's and collaborations international universities / organizations for academic and research. ? To promote innovation, creativity, and entrepreneurship among students. ? To improve the quality of faculty publications ? To Strengthen the students' projects as patentable ? Implementing continuous evaluation technique in classrooms and for faculty performance ? Well-furnished IQAC office setup ? Improving the staff Quality by making them to participate for various skill development programs. ? Improving the placement opportunities by improving their technical skills. ? Upgrading laboratories. ? Strengthen Industry Institute Interaction through Installing of Industry Institute Partnership Cell (IIPC). ? Conducting Entrepreneurship training and certification programme to students from their first year onwards through Entrepreneurship Development Cell (EDC). ? Plan to obtain Research Centre Recognition for CSE, ECE, Mechanical, Civil departments. ? To seek further funding from national and international agencies