

ARE INSTITUTE OF **AERONAUTICAL ENGINEERING**

PERSPECTIVE PLAN (2017-2018 To 2021-2022)

INTRODUCTION

IARE consistently ranks in the country's top 200 institutions that draw on information about teaching, research, innovation, and employability. We are one of the most popular colleges in the state of Telangana, India, attracting on average top 5% of EAMCET aspirants, and our students are among the most sought-after by employers across the globe. 100 percent of our B. Tech programmes are NBA accredited.

Hyderabad is India's one of the largest and fastest growing economy. In this culturally diverse hub of international education, technology, business, industry, and innovation, IARE global links are creating unlimited opportunities.

IARE is a prestigious Autonomous engineering college offering eleven B. Tech programs Computer Science and Engineering, Computer Science and Engineering (Artificial Intelligence and Machine Learning), Computer Science and Engineering (Data Science), Computer Science and Engineering (Cyber Security), Computer Science and Information Technology, Information Technology, Electronics and Communication Engineering, Electrical and Electronics Engineering, Aeronautical Engineering, Mechanical Engineering, Civil Engineering and six M. Tech programs in engineering and MBA (Master of Business Administration) with 21 years of rich standing in the educational sphere. The institute is approved by AICTE, New Delhi; recognized by Govt. of Telangana; permanently affiliated to Jawaharlal Nehru Technological University Hyderabad (INTUH); and accredited by National Assessment and Accreditation Council (NAAC) with 'A' Grade. All the seven B. Tech programs are accredited thrice by National Board of Accreditation (NBA), New Delhi since 2008. The institute also received UGC recognition under Sections 2(f) and 12(B) of the UGC Act.

The institute is ranked 159 in Engineering category as per National Institutional Ranking Framework (NIRF) – 2021, Ministry of Human Resource Development (MHRD), Govt. of India. This illustrates positive performance and quality standards we maintain in Teaching, Research, Employability, and Innovation. Categorized as 'Band B' institution (Rank Band 26-50) 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. With the right mix of technical and crucially, social, and contextual skills to tackle global challenges and help change people's lives. Targeting a more diverse cohort of students than traditional engineering degrees. IARE aims to attract and empower socially aware and globally focused engineers through its innovative, industry informed and projectbased curriculum.

Our strategic Plan has long-term aspirations to grow IARE'S total student cohort to over 5000 and to develop a new teaching model that is scalable nationally and internationally to positively influence engineering education delivery in our founding partners' provision and across the sector.

From our innovative social learning spaces, online learning environment and use of digital technologies to on-campus next-gen computer laboratories and state-of-the-art research facilities, we adopt new and emerging technologies to provide richer educational experience.

This 2017-2022 Perspective Plan has been developed to set us on

A course to achieve these long-term aims, by providing goals and objectives for IARE'S first five years of operation and to test the feasibility of our innovative curriculum model within this period. The Perspective Plan has been proudly developed in consultation with our staff and our stakeholders and will be regularly monitored and reviewed. Our Perspective Plan is underpinned by a set of KPIs which will enable us to measure progress, celebrate successes and refocus our effort where required.

We are embarking on an exciting journey to extend participation in engineering, to increase the pipeline of engineering graduates which is sorely needed. This will enable us to transform engineering education in order to transform lives. This Perspective Plan, together with our sub-strategies and operational planning, provides us with a roadmap to achieve this vision.



OVERVIEW

OUR VISION

To bring forth professionally competent and socially sensible engineers, capable of working across cultures while meeting the global standards ethically.

OUR MISSION

To provide students with an extensive and exceptional education that prepares them to excel in their professions guided by dynamic intellectual community and be able to face the technically complex world with creative leadership qualities.

Further, be instrumental in emanating new knowledge through innovative research that emboldens entrepreneurship and economic development for the benefit of wide spread community.

OUR VALUES

We always aim to be inclusive, courageous, inspiring and collaborative and to work with integrity.

OUR STRATEGIES AND OBJECTIVES:

STRATEGY

Attract motivated academic achievers to UG and PG programmes and nurture them in to skilled technical and managerial workforce with research acumen and social responsibility.

Establish and strengthening a comprehensive advisory system

INITIATIVES

- → Addressing stakeholders' expectations and Local / National / Global needs in formation of syllabi / Other contemporary activities.
- ightarrow Regular Auditing of academic and administrative functions
- ightarrow Innovative Teaching Learning Model

KPI Measures

- \rightarrow No. of New Courses
- \rightarrow Frequency of Scheme Modification
- \rightarrow Number of programs for career guidance
- \rightarrow Involvement of industry experts in curriculum design

Establish state- of-the-art Research laboratories and Centres of Excellence

INITIATIVES

- $\rightarrow~$ Strengthening the research setup across departments
- $\rightarrow\,$ Identify areas of expertise and set up courses/ centers to disseminate the expertise

KPI Measures

- \rightarrow No. of Centre of Excellences
- \rightarrow No. of Research Projects
- \rightarrow No. of Research publications

Transforming students into an Employable Workforce

INITIATIVES

- ightarrow Career counseling and aptitude building
- $\rightarrow \,$ Industry experts in curriculum development and strategy formulation
- $\rightarrow~$ Fostering industry tie-ups to converting internships to job offers

KPI Measures

- \rightarrow No. of Programs
- $\rightarrow~$ No. of Internships and Job Offers

Instituting scholarships for Economically Backward Category (EBC) students

INITIATIVES

- \rightarrow Strengthening the research setup across departments
- $\rightarrow\,$ Identify areas of expertise and set up courses/ centers to disseminate the expertise

KPI Measures

 \rightarrow Institutional Scholarships

Holistic Development of Students

INITIATIVES

- → Incentives for participation in extra& co-curricular activities
- ightarrow Hackathons and Competitions
- → Organizing Soft-skill Development Programs
- \rightarrow Extend technical and financial support for start-ups
- \rightarrow Inculcation of Ethical Practices

KPI Measures

- \rightarrow No. of students in different Activities across the college
- \rightarrow Support extended to student startups
- \rightarrow Programs on skill upgradation
- \rightarrow No. of Self-Financed / MOOC Courses

OUR STRATEGIES AND OBJECTIVES:

strategy 02

Provide outstanding and diverse faculty and technological & other facilities so that students receive quality teaching and advising, enabling them to become problem solvers, leaders, and critical thinkers highly sought after by universities, industry, and the government.

Providing outstanding and diverse faculty Transforming students into an Employable Workforce

INITIATIVES

- $\rightarrow\,\, {\rm Recruitment}$ of new faculty with contemporary research exposure
- $\rightarrow~$ Recruitment of Faculty with Industry Exposure
- \rightarrow Recruitment of Adjunct Faculty

KPI Measures

 $\rightarrow~$ Number of Faculty recruited with Research Exposure

Up gradation of Technological and Other Facilities

INITIATIVES

- \rightarrow Up gradation of laboratories
- ightarrow Lab Access for extended hours
- \rightarrow Provide smart class rooms
- ightarrow Updating software and Internet facility

KPI Measures

- $\rightarrow~{\rm Sponsoring}$ the Faculty to participate in FDPs, STTP's and Conferences
- ightarrow Budgetary Provision and Utilization

Qualification improvement of the existing Faculty

INITIATIVES

- $\rightarrow~{\rm Encouraging}$ existing Faculty to Pursue PhD at NITs and IITs
- $\rightarrow~$ Participation in STTP and conferences
- $\rightarrow~$ Certifications NPTEL
- \rightarrow Promoting industry assignments

KPI Measures

- \rightarrow Institutional funding to pursue doctoral programs
- \rightarrow Reimbursement of PhD fees of faculty

Engage the services of qualified and competent industry / field experts

INITIATIVES

- $\rightarrow~$ Involvement of industry experts in Board of studies
- \rightarrow Guest lecturers / Course
- \rightarrow Module by industry experts
- \rightarrow Industry Visits Conducted

KPI Measures

- \rightarrow Number of Faculty recruited with Industry Exposure
- → Number of Industry Experts in Advisory committees / BoS
- \rightarrow Number of Expert Lectures delivered by industry personnel
- \rightarrow Number of Adjunct Faculty recruited
- ightarrow No. of Corporate trainings

Retention of Faculty Members

INITIATIVES

- → Providing Incentive for Qualification Up gradation / Research Incentives
- → Implementation of CAS Scheme

KPI Measures

- $\rightarrow\,$ Providing Incentive for Qualification Up gradation / Research Incentives
- ightarrow Sponsoring for Higher Education / Academic leave
- → Maternity leaves

Encourage the Faculty to develop and promote the products / technology

INITIATIVES

 $\rightarrow~$ Carrying UG and PG projects up to the level of product development

KPI Measures

- \rightarrow Number of Faculty undertaking industry assignments / Consultancy
- ightarrow Number of Industry Visits
- $\rightarrow\,$ Number of Projects carried out leading towards product development

OUR STRATEGIES AND OBJECTIVES:



Establish focused, high-impact, nationally recognized research programs and build a prominent faculty that will enhance the college's national and international reputation.

Establish and promote research ethos in the college

INITIATIVES

- \rightarrow Facilitate Incentive schemes
- \rightarrow Motivate faculty members to publish papers in high impact reputed indexed journals
- \rightarrow Anti-plagiarism Policy
- → Installation of Research Awards
- \rightarrow Organizing Conferences and Workshops

academic and sponsored research

INITIATIVES

- \rightarrow Academic Research
- → Increase the numbers of PhD seats & enrolments

Enhance high impact research through

- \rightarrow Add Place of Research & Higher Learning Seed Money for research
- → Sponsored Research

KPI Measures

- \rightarrow Increase research grants
- → Receive sponsorship from Corporate / NGOs

 \rightarrow Number of papers in Indexed Journals (SCI/WoS)

Augment technical, legal and financial support to IPRs

INITIATIVES INITIATIVES \rightarrow To be one among NIRF ranked institutions \rightarrow IPR Cell established Legal help form professional attorney is provided \rightarrow \rightarrow Financial support is provided \rightarrow Incentives are provided **KPI** Measures **KPI** Measures → National Institutional Ranking Framework (NIRF) → Grants received \rightarrow Atal Ranking of Institutions on Innovation \rightarrow Number of Patents filed Achievement (ARIIA) → Number of Copyrights received \rightarrow QS Ranking \rightarrow Books / Book chapters

\rightarrow Incentives Paid (Rs.)

KPI Measures

STRATEGY OUR STRATEGIES AND OBJECTIVES:

Establish lifelong connections with alumni and capitalize on this network, corporate partnerships, and related research/scholarship within the college to strengthen the education experience, research/scholarship quality, an financial support of the college.

Building a bridge between alumni and current students

INITIATIVES

- \rightarrow Scholarships to deserving students
- → Mentorship Workshops
- \rightarrow Invited lectures by alumni
- \rightarrow Students Exchange programs facilitated by alumhi
- \rightarrow Internship facilitation
- \rightarrow Placement facilitations
- → Entrepreneurial Assistance Program

KPI Measures

- \rightarrow Donations received from alumni
- \rightarrow Number of alumni registered with official website of college
- Number of alumni Meets conducted \rightarrow
- → Expert Lectures / Workshops conducted by alumni

Creating public perception/ Brand image of the institute in society

INITIATIVES

KPI Measures

- \rightarrow Nominating Distinguished
- \rightarrow Awareness Program for aspiring students annually

→ Number of alumni Nominated for Institute perception

 \rightarrow Number of Awareness Programs organized

outstanding performance in their Profession

Enrichment of curriculum and **Fostering Industry relationships**

INITIATIVES

- → Inviting Alumni as BOS, Academic council and **BOG** members
- → Alumni sponsored
- \rightarrow Labs/Infrastructure
- → Industry Visits through alumni
- → Industry Projects

KPI Measures

- \rightarrow Number of alumni invited on various boards
- \rightarrow Number of Industry visits organized by alumni

Enhancing alumni network for professional development

INITIATIVES

National Ranking

- → Establishing Alumni Chapters nationally and globally
- → Conducting Alumni meets at
- \rightarrow respective chapters regularly
- → Development of Official Alumni Website

KPI Measures

- \rightarrow Number of alumni felicitated for outstanding performance in their profession
- → Number of alumni Chapters established

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- → Alumni for Institute Perception
- → Organizing Admission process
- \rightarrow Felicitating and publicizing alumni for their

OUR STRATEGIES AND OBJECTIVES:

strategy 05

Prepare students and faculty for the changing global environment to create a culture of diversity, creativity, innovation, and entrepreneurship

Promote Global knowledge exposure

INITIATIVES

- $\rightarrow~$ Collaborations and MOU with international universities
- → Facilitating faculty members to attend international conferences/symposium/ workshops
- → Organize conferences in collaboration with international universities
- → Invite faculty members from International Universities for conducting expert talks, training programs, etc.

KPI Measures

- → Number of MOUs with International Universities
- → Number of student internships at Foreign universities / laboratories
- → Number of faculty members participated in International Events
- → Number of Conferences organized in association with Foreign Universities

Promote culture of Creativity, Innovation and Entrepreneurship amongst students

INITIATIVES

- \rightarrow Establishment of Incubation Centre
- → Creation of Entrepreneurship Development Cell
- \rightarrow Design and launch of Nano Satellite

KPI Measures

- $\rightarrow\,$ Number of Experts invited from Foreign Universities
- → Number of Training programs organized in association with Foreign Universities

OUR STRATEGIES AND OBJECTIVES:



Actively engage with the local/regional community and use all our institutional strengths & capabilities for providing the solutions for socioeconomic growth of the local/regional community, irrespective of their status in the society.

Providing Technological and Managerial Solutions to Local Industries

Identification of socio- economic problems and provide the assistance through Institutional Support

- → Promotion of RGSTC-TIFAC Internship Scheme
- → Industry based Project at UG and PG level

KPI Measures

INITIATIVES

→ Number of Projects offered under various schemes and Industry based Project

INITIATIVES

- \rightarrow National Service Scheme (NSS)
- ightarrow Organ and Blood Donation Camp
- → Cleanliness Drive Swach Bharat Abhiyaan
- $\rightarrow~$ Health Check-up Camps
- $\rightarrow~$ Visit and Support to Orphanage and Old Age Homes
- $\rightarrow \;$ Awareness Programs on Traffic, Water Conservation
- $\rightarrow~$ Identification and Adoption of Villages
- \rightarrow Environmental Conservation Awareness Program
- \rightarrow Unnat Bharath Abhiyan

KPI Measures

→ Number of programs conducted through Extension and Outreach

COLLECTED IARE KPIS

Strategy 01 Attract motivated ac	ademic achievers to UG and PG programs and nurture them in to skilled technical and ma	nagerial workforce with resea	arch acumen and social responsibility.	
OBJECTIVE	KPI T.	ARGET BY 2020-21	TARGET BY 2021 -22	UPDATED
Installing and strengthening a comprehensive advisory system	% No. of New programs	50%	65%	Annually
	Frequency of Scheme Modification	Once in two years	Once in two years	Annually
	Number of programs for career guidance	5	10	Annually
	Involvement of industry experts in curriculum design	25	30	Annually
Transforming students into an	No. of Programs	30	50	Annually
Employable Workforce	No. of Internships and Job Offers	1000	2000	Annually
Holistic Development of Students	% of students in different Activities across the college	08	12	Annually
-	Support extended to student startups	20	25	Annually
-	Programs on skill upgradation	5	10	Annually
-	No. of Self-Financed / MOOC Courses	10	15	Annually
Establish state- of-the-art	No. of Centre of Excellences	5	8	Annually
Research laboratories and Centres	No. of Research Projects	10	15	Annually
of Excellence	No. of Research publications	150	200	Annually
-	Research Centres	03	05	Annually
Institutional scholarships for deserved students as per the Government of Telangana	% of students benefited by the Institutional Scholarship	16	20	Annually
Strategy 02 Provide outstanding and div	rerse faculty and technological & other facilities so that students receive quality teaching and advising, enabling them to	o become problem solvers, leaders, and c	ritical thinkers highly sought after by universities,	industry, and the government.
OBJECTIVE	KPI T.	ARGET BY 2020-21	TARGET BY 2021 -22	UPDATED
Providing outstanding and diverse faculty Transforming students into an Employable Workforce	Number of Faculty recruited with Research Exposure	20	25	Annually
Qualification improvement of the	Institutional funding to pursue doctoral programs	10 Lakhs	20 Lakhs	Annually
existing Faculty	Reimbursement of PhD fees of faculty	20 Lakhs	25 Lakhs	Annually
Retention of Faculty Members	Providing Incentive for Qualification Up gradation / Research Incentive	s 50 Lakhs	70 Lakha	
			70 Lakhs	Annually
	Sponsoring for Higher Education / Academic leave	30 Lakhs		Annually Annually
-			35 Lakhs 06 months	Annually Annually Annually
- Up gradation of Technological and	Sponsoring for Higher Education / Academic leave Maternity leaves	30 Lakhs 06 months	35 Lakhs 06 months	Annually Annually
Up gradation of Technological and Other Facilities	Sponsoring for Higher Education / Academic leave	30 Lakhs 06 months	35 Lakhs	Annually
	Sponsoring for Higher Education / Academic leave Maternity leaves Sponsoring the Faculty to participate in FDPs, STTP's and Conference	30 Lakhs 06 months es 20 Lakhs	35 Lakhs 06 months 25 Lakhs Yes	Annually Annually Annually Annually
Other Facilities Engage the services of qualified	Sponsoring for Higher Education / Academic leave Maternity leaves Sponsoring the Faculty to participate in FDPs, STTP's and Conference Budgetary Provision and Utilization Number of Faculty recruited with Industry Exposure	30 Lakhs 06 months es 20 Lakhs Yes 50	35 Lakhs 06 months 25 Lakhs Yes 60	Annually Annually Annually Annually Annually
Other Facilities	Sponsoring for Higher Education / Academic leave Maternity leaves Sponsoring the Faculty to participate in FDPs, STTP's and Conference Budgetary Provision and Utilization	30 Lakhs 06 months es 20 Lakhs Yes	35 Lakhs 06 months 25 Lakhs Yes 60 25	Annually Annually Annually Annually Annually Annually
Other Facilities Engage the services of qualified and competent industry / field	Sponsoring for Higher Education / Academic leave Maternity leaves Sponsoring the Faculty to participate in FDPs, STTP's and Conference Budgetary Provision and Utilization Number of Faculty recruited with Industry Exposure Number of Industry Experts in Advisory committees / BoS Number of Expert Lectures delivered by industry personnel	30 Lakhs 06 months es 20 Lakhs Yes 50 20	35 Lakhs 06 months 25 Lakhs Yes 60 25 30	Annually Annually Annually Annually Annually Annually Annually
Other Facilities Engage the services of qualified and competent industry / field	Sponsoring for Higher Education / Academic leave Maternity leaves Sponsoring the Faculty to participate in FDPs, STTP's and Conference Budgetary Provision and Utilization Number of Faculty recruited with Industry Exposure Number of Industry Experts in Advisory committees / BoS	30 Lakhs 06 months es 20 Lakhs Yes 50 20 25	35 Lakhs 06 months 25 Lakhs Yes 60 25	Annually Annually Annually Annually Annually Annually
Other Facilities Engage the services of qualified and competent industry / field experts	Sponsoring for Higher Education / Academic leave Maternity leaves Sponsoring the Faculty to participate in FDPs, STTP's and Conference Budgetary Provision and Utilization Number of Faculty recruited with Industry Exposure Number of Industry Experts in Advisory committees / BoS Number of Expert Lectures delivered by industry personnel Number of Adjunct Faculty recruited No. of Corporate trainings	30 Lakhs 06 months es 20 Lakhs Yes 50 20 25 10 25	35 Lakhs 06 months 25 Lakhs Yes 60 25 30 15 30	Annually Annually Annually Annually Annually Annually Annually Annually Annually Annually
Other Facilities Engage the services of qualified and competent industry / field	Sponsoring for Higher Education / Academic leave Maternity leaves Sponsoring the Faculty to participate in FDPs, STTP's and Conference Budgetary Provision and Utilization Number of Faculty recruited with Industry Exposure Number of Industry Experts in Advisory committees / BoS Number of Expert Lectures delivered by industry personnel Number of Adjunct Faculty recruited	30 Lakhs 06 months es 20 Lakhs Yes 50 20 25 10	35 Lakhs 06 months 25 Lakhs Yes 60 25 30 15	Annually Annually Annually Annually Annually Annually Annually Annually

COLLECTED IARE KPIS

Strategy 03 Establish focused,	high-impact, nationally recognized research programs and build a promine	nt faculty that will enhance the coll	ege's national and international re	putation.
OBJECTIVE	KPI	TARGET BY 2020-21	TARGET BY 2021 -22	UPDATED
Establish and promote research ethos in the college	Incentives	25 Lakhs	30 Lakhs	Annually
Enhance high impact research through academic and sponsored research	Number of papers in Indexed Journals (SCI/WoS)	150	200	Annually
Augment technical, legal, and	Grants received	250 lakhs	300 lakhs	Annually
financial support to IPRs	Number of Patents filed	7	15	Annually
	Number of Copyrights received	10	20	Annually
	Books / Book chapters	25	50	Annually
National Ranking	National Institutional Ranking Framework (NIRF)	159	< 100	Annually
	Atal Ranking of Institutions on Innovation Achievement (ARIIA)	Categorized as 'Band B' institution	Categorized as 'Band A' institution (Rank Band 1-25)	Annually
	QS Ranking	(Rank Band 26-50)		Annually
		Participated	Platinum / Gold / Silver	

Strategy 04 Stablish lifelong connec	tions with alumni and capitalize on this network, corporate partnerships, and related research/scholarship within	the college to strengthen the education ex	perience, research/scholarship quality, and finar	icial support of the college.
OBJECTIVE	KPI	TARGET BY 2020-21	TARGET BY 2021 -22	UPDATED
Building a bridge between alumni	Donations received from alumni	10 Lakhs	15 Lakhs	Annually
and current students	Number of alumni registered with official website of college	3000	4000	Annually
	Number of alumni Meets conducted	01	02	Annually
	Expert Lectures / Workshops conducted by alumni	15	25	Annually
Creating public perception/ Brand	Number of alumni Nominated for Institute perception	05	10	Annually
image of the institute in society	Number of Awareness Programs organized	03	05	Annually
Enrichment of curriculum and	Number of alumni invited on various boards	20	30	Annually
fostering Industry relationships	Number of Industry visits organized by alumni	01	02	Annually
Enhancing alumni network for	Number of alumni felicitated for outstanding performance in their profe	ession 02	04	Annually
professional development	Number of alumni Chapters established	01	02	Annually

COLLECTED IARE KPIS

Strategy 05 Prepare students	and faculty for the changing global environment to create a culture of diver	sity, creativity, innovation, a	and entrepreneurship.	
OBJECTIVE	KPI	TARGET BY 2020-21	TARGET BY 2021 -22	UPDATED
Promote global knowledge exposure	Number of MOUs with International Universities	08	10	Annually
	Number of student internships at Foreign universities / laboratories	08	10	Annually
	Number of faculty members participated in International Events	05	10	Annually
	Number of Conferences organized in association with Foreign Universit	ies 02	05	Annually
	Number of Experts invited from Foreign Universities	02	05	Annually
Strategy 06 Actively engage with the OBJECTIVE	e local/regional community and use all our institutional strengths & capabilities for providing the solution KPI TA	s for socio-economic growth of the loca NGET BY 2020-21	al/regional community, irrespective of the TARGET BY 2021 -22	ir status in the society. UPDATED
Providing technological and managerial solutions to local industries	Number of Projects offered under various schemes and Industry based	Project 02	05	Annually
Identifying of socio- economic problems and providing the assistance through Institutional Support	Number of programs conducted through Extension and Outreach	05	10	Annually



Find out more: www.iare.ac.in

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