



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)
Dundigal - 500 043, Hyderabad, Telangana

Department of Aerospace Engineering

Attainment of Program Outcomes (POs) of 2020 - 2022 batch (IARE – R18)

Course Code	Course	Program Outcomes (POs)					
		PO1	PO2	PO3	PO4	PO5	PO6
BAEB01	Advanced Mathematics in Aerospace Engineering	-	-	1.00	1.00	1.00	-
BAEB02	Aerospace Propulsion	2.90	-	1.60	2.10	1.90	-
BAEB05	Advanced Computational Aerodynamics	1.60	-	1.70	1.60	0.70	-
BAEB06	Unmanned Aerial Vehicles	1.10	-	1.10	1.10	1.20	-
BAEB09	Advanced Computational Aerodynamics Laboratory	3.00	-	3.00	3.00	3.00	-
BAEB10	Computational Aerospace Engineering Laboratory	-	-	3.00	3.00	3.00	-
BAEB11	Flight Dynamics and Control	-	-	1.20	1.30	-	-
BAEB12	Engineering Analysis of Flight Vehicles	-	-	1.50	1.40	-	-
BAEB14	Rocket and Missile	1.90	-	1.80	1.60	1.20	-
BAEB16	Atmospheric Re Entry Vehicles	1.30	-	1.10	1.10	0.70	-
BAEB19	Flight Simulation and Controls Laboratory	1.60	1.60	1.60	1.60	1.60	-
BAEB20	Computational Structures Laboratory	1.60	1.60	1.60	1.60	-	-
BAEB21	Mini Project With Seminar	1.60	1.60	1.60	1.60	1.60	1.60
BCSB31	Research Methodology & IPR	1.50	1.30	-	1.50	1.70	1.10
BAEB24	Airport Planning and Operations	1.10	-	1.30	1.10	1.10	1.10
BCSB29	Composite Materials	2.10	-	2.00	2.20	2.30	-
BAEB40	Phase - I Dissertation	3.00	3.00	3.00	3.00	3.00	3.00
BAEB41	Phase - II Dissertation	3.00	3.00	3.00	3.00	3.00	3.00
Direct Attainment		1.9	1.8	1.8	1.8	1.7	1.7

Overall Attainment

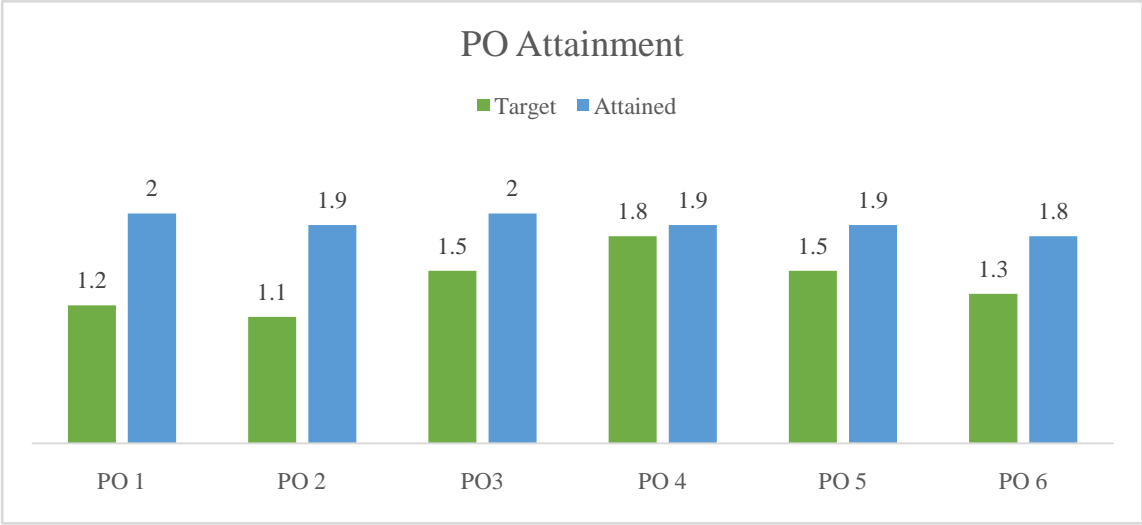
Sl. No	Assessment Components (Direct + Indirect)	Program Outcomes (POs)					
		PO1	PO2	PO3	PO4	PO5	PO6
1	Direct Assessment (CIA + SEE + Course End Survey) (a)	1.9	1.8	1.8	1.8	1.7	1.7
2	Program Exit Survey (b)	2.4	2.4	2.7	1.8	2.7	2.4
3	Alumni Survey (c)	2.7	2.1	2.4	2.7	2.1	2.4
4	Employer Survey (d)	2.2	2.3	2.6	2.5	2.6	2.5
Overall attainment = a*0.8 + b*0.1 + c*0.05 + d*0.05		2	1.9	2	1.9	1.9	1.8

Action taken to improve the attainment of POs:

POs	Target Level	Attainment Level	Observation
PO1: Independently carry out research /investigation and development work to solve practical problems.			
PO1	1.2	2	Target Achieved. Following courses were identified which didn't meet the attainment target. BAEB06 and BAEB24
Action:			
<ol style="list-style-type: none"> 1. Target value is achieved and efforts being put forth to maintain the same level as well as to further improve it. 2. Compulsory in-plant training, interaction with experts from the industry through workshops has been included. 3. Improving curriculum by introducing topics related to research 4. Research projects (academia and industry) leading to journal publications 			
PO2: Write and present a substantial technical report/document			
PO2	1.1	1.9	Target Achieved.

Action:			
<ol style="list-style-type: none"> 1. Target value is achieved and efforts being put forth to maintain the same level as well as to further improve it. 2. The focus on publications enabled the students to improve their technical report writing skills. 3. The program has made it mandatory to publish a paper related to the domain of project work. 4. Technical seminar was introduced as separate course in the revised curriculum. This has enabled students to improve their technical report/document writing skills 			
PO3: Demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.			
PO3	1.5	2	Target Achieved. Following courses were identified which didn't meet the attainment target. BAEB01, BAEB06, BAEB11, BAEB16 and BAEB24
Action:			
<ol style="list-style-type: none"> 1. Target value is achieved and efforts being put forth to maintain the same level as well as to further improve it 2. Enhanced curriculum including advanced courses new subjects. 3. The project thesis has improved due to a more rigorous approach to evaluation. The evaluation includes mathematical modelling, geometrical modelling, experimental modelling and analysis. Plagiarism check using Turnitin software has been made mandatory 			
PO4: Identify, formulate, analyze and Design complex engineering problems, and design system components or processes by applying appropriate advanced principles of engineering activities and using modern tools.			
PO4	1.8	1.9	Target Achieved. Following courses were identified which didn't meet the attainment target. BAEB01, BAEB06, BAEB11, BAEB12, BAEB14, BAEB16, BAEB19, BAEB20, BAEB21, BCSB31 and BAEB24.

Action:			
<ol style="list-style-type: none"> 1. Target value is achieved and efforts being put forth to maintain the same level as well as to further improve it 2. Introduction of advance computational labs with high performance systems enabled students to carryout complex numerical simulations. 3. New research facilities gradually making a significant contribution to attainment of PO4 4. Introduction of application based industrial training has increased the ability of the students to analyze and evaluate complex problems. 			
PO5: Engage in life-long learning and professional development through self-study and continuing education in understanding the engineering solutions in global and management principles to manage projects in multidisciplinary environments.			
PO5	1.5	1.9	Target Achieved. Following courses were identified which didn't meet the attainment target BAEB01, BAEB05, BAEB06, BAEB14, BAEB16 and BAEB24
Action:			
<ol style="list-style-type: none"> 1. Target value is achieved and efforts being put forth to maintain the same level as well as to further improve it 2. By introduction of more practical oriented laboratory courses and methodological evaluation using appropriate rubrics, the students inculcated with lifelong learning potential skills for design and manufacturing practices which is a generic for any branch of engineering 			
PO6: Function effectively as a member or leader in diverse teams to carry out development work, produce solutions that meet the specified needs with frontier technologies and communicate effectively on complex engineering activities.			
PO6	1.3	1.8	Target Achieved. Following courses were identified which didn't meet the attainment target BCSB31 and BAEB24
Action:			
<ol style="list-style-type: none"> 1. Target value is achieved and efforts being put forth to maintain the same level as well as to further improve it 2. In IARE-R18 regulations, a course titled Mini Project with seminar has been introduced to improve the team work and involve students in multidisciplinary project works. In this course students are encouraged to develop multidisciplinary products which makes them to adapt to carry out any development work in diverse team. 			



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